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# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. 1

September, 1910

No. 1

## DOOR COUNTY

The city and town of Sturgeon Bay and adjacent village of Sawyer is but part of Door county. There is really much besides. This statement may surprise some people, including not a few Sturgeon Bayites.

Door county or the Door peninsula has been associated in the minds of Wisconsin horticulturists

planted the first orchard, of any size, in Door county and induced his neighbors to do likewise, but as the details of orchard growth at Sturgeon Bay is really no part of this story we will not go into it at this time. These men pursued their business in a quiet, methodical way and no land booms were apparent until recently. With the big crop

thousands of acres of land that from a casual examination appears exactly as well adapted to fruit growing as any near Sturgeon Bay. The native growth is similar, the soil is similar and who shall say the climate is not the same? It is true that magnificent "artery of commerce," the Ahnapee & Western, after wandering leisurely from Green Bay to Casco



Door County Cherries. Average branch on 8 year old trees orchard of D. E. Bingham, Sturgeon Bay, July 20, 1910

as a great and promising fruit region, as indeed it is, but the casual visitor rarely gets beyond Sturgeon Bay and is apt to go away with the impression that the only available fruit land is just outside the city limits. It is true that the only cherry orchards of any importance are located there but that is easily explained; the business of fruit growing on a commercial scale can be traced directly and easily back to A. L. Hatch. In company with the late Prof. E. S. Goff, Mr. Hatch

of 1909, running as high as \$600 per acre, owners of land adjoining these orchards began to get excited and to push up land prices. Prices didn't rise, they jumped.

This would be all right if the land adapted to cherry raising and the peculiar climatic conditions so necessary were absolutely confined to the region immediately adjacent to Sturgeon Bay, but this is clearly not the case.

In that part of the county lying north of Sturgeon Bay can be found

and then backing up to Algoma, finally stops, worn out, at Sturgeon Bay, and no doubt the fact that the road stops here has led many to think that nothing lies beyond but rocks and forest.

While the lack of rail transportation is a decided handicap to the development of any region, it is not really serious in upper Door county on account of the excellent boat service on both shores.

A glance at the map shows numerous excellent harbors and it is safe



to predict that even when railroads have pushed up to Ellison Bay that water transportation will still be an important factor. From a rather hurried trip from Sturgeon Bay to Jacksonport, Bailey's Harbor, Sister Bay and Ellison Bay, returning on the west shore by way of Ephraim, Fish Creek and Egg Harbor, these impressions remain:

(1) The upper peninsula does not give the impression of a new or undeveloped country. In traveling through many parts of northern Wisconsin one is never for a moment in doubt about being in a pioneer land; little clearings of 5 to 10 acres with board cabins surrounded by forests, are the rule, while in upper Door the amount of cleared land, the comfortable, painted farm houses and large barns give the impression of an old and settled down farming region. This is true not only of the main highways but of the east and west roads as well. The size of the farms, cleared, and the character of the farm buildings was a constant surprise. At least twenty new barns were seen all of one type, hip-roof and high stone foundation.

(2) The excellent roads: For fully one-third of the distance the main roads are macadamized and stone-crushers and steam rollers are at work extending these splendid highways toward the tip of the county.

(3) The number of farm orchards: On this ninety-mile trip we passed hundreds of farms and almost without exception every farm had an orchard of 10 to 20 trees, mostly apple. Many of these trees have been planted at least 25 years and at Fish Creek are apple trees at least 40 years old.

Even without care these apple orchards are thrifty and productive. But few cherries have been planted, but occasional trees show the possibilities in this direction.

One very striking feature from a fruit standpoint is the existence of seedling apple trees by the roadside. Several such trees were noted and under circumstances leaving no doubt as to their origin. These roadside seedlings, rare in Wisconsin although exceedingly common in the eastern states, show clearly that the

apple at least is indigenous in Door county.

The farmers along the way were all willing to talk and all were unanimous in the opinion that fruit could be grown successfully; no one seemed to question it.

#### (4) Price of land:

As to farm land prices the usual wide range was found, but as a result of unceasing questioning we conclude that through the central portion of the peninsula, including the townships of Jacksonport, Egg Harbor, Bailey's Harbor and Gibraltar, improved farms may be bought for \$35 to \$50 per acre. All land is reckoned in "forties" as in all new wooded counties, and these prices refer to a forty practically all cleared and under cultivation and with fair buildings.

In the vicinity of Egg Harbor we were offered improved forties without buildings at \$35 per acre. At another point we were told of a farm consisting of three forties, tools, etc., which could be bought for \$5,000.

Good unimproved or wild land seemed to be scarce. The farmers were all emphatic in their assertions that these lands are mostly held by large owners and speculators who will not sell. The only quotations we could get ranged from \$5 to \$10 per acre and these forties so quoted were well up towards the tip of the peninsula.

It must be kept in mind that these statements of prices are merely the result of roadside inquiry and are not intended in any sense as fixing the value of Door county lands.

In addition to these impressions, rather firmly fixed, two others seemed to drift in, although nothing substantial can be cited as proof: first, that the soil layer seems to grow gradually thinner from south to north. The limestone outcroppings were certainly more frequent north of Fish Creek and Bailey's Harbor, the rye thinner and the barley shorter.

Secondly, the west shore seems better than the east; crops appear better, farm homes have a more comfortable appearance and the weeds more luxuriant.

Finally, the big impression re-

mains and with a tenacity that cannot be dislodged—this tongue of land north of Sturgeon Bay is splendidly adapted to fruit raising, land is cheap, at present, and there are boundless opportunities. Sturgeon Bay is really only a very small part of Door county. If any one doubts it let him go and see.

### FRUIT SELLING ORGANIZATIONS

Two things are of the very highest importance in commercial horticulture, the ability to raise the fruit and ability to sell it to advantage. The first is readily acquired by actual experience, by study of the best literature on the subject and by attending horticultural meetings.

The selling of the crop to the best advantage is a more difficult matter and an individual grower in any community acting alone may easily work at cross purposes with every other grower, while if all acting as a unit through a local organization may improve conditions almost beyond belief.

In co-operation lies the secret of success here as in every other line of business. Busy little Denmark discovered this long ago and has set a pace for the rest of the world in marketing dairy produce.

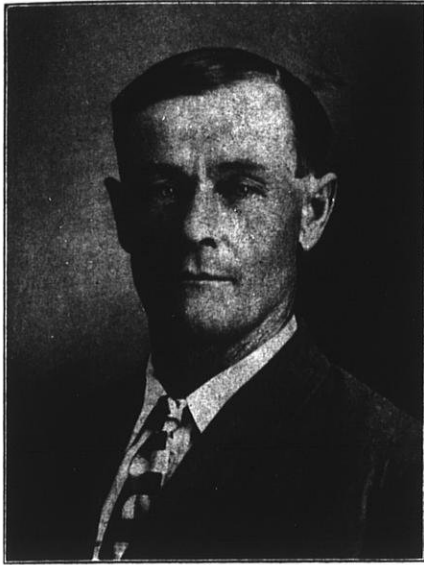
The Colorado melon growers were probably the first to demonstrate the value of an organization for selling and their success has prompted fruit men in every part of the country to follow suit. Both the berry growers and the fruit tree men of Missouri are well organized as are the far western apple growers.

Hood River Valley is a little crack in the mountains and apple raising and selling might have been carried on there for a century and the world at large no wiser if it had not been for the wise co-operation of the growers there. Some wise person saw the value of working together and organized the growers to act as a unit. This organization not only markets the fruit grown but packs and labels every apple and strawberry grown by its members. Not only that, but has set standards of quality and these conditions must be met fully or the fruit is rejected.

Continued on Page 7

**SUCCESS**

Here is a plain and simple story of success told by a quiet and unassuming man up Alma Center way. It



**E. W. Sullivan, Alma Center**

was only after much persuasion that Mr. Sullivan consented to write about himself, protesting that he was

a wonder tale even to some who have lived in Wisconsin for many years and we hope it will serve both as a stimulus to young men and food for thought to rainbow chasers. The pot of gold is not at the foot of the rainbow, dear readers, it is right under your feet in the soil of good old Wisconsin.

"In 1884 I bought 80 acres of land and commenced to raise garden truck and berries. About 1894 I set 5 acres of strawberries and from that time on have had from 5 to 7 acres of strawberries each year, also have been raising from 1 to 5 acres of raspberries for the past ten years. Seven years ago I set 2 acres of apple trees and have continued setting and I now have about 1400 trees. My seven-year-old trees bore about 2 bushels to the tree this year. I have never kept any accurate account of what I have sold but on strawberries I think I have sold about \$1000 a year for the past 15 years. I think on raspberries I have sold about \$250 per year for the past 10 years. I am just getting started in apples and

"I have been clearing about \$2500 per year for the last ten years over and above all expenses but I have a large garden and farm in connection with the fruit. I started 25 years ago with \$1000 which I worked seven years to get, and today have 200 acres of choice land and have \$19,000 out at interest. Now if this is of any use to you you are welcome to it. If you are over this way stop and see me.

Yours truly,

"E. W. SULLIVAN, Alma Center,"

**STURGEON BAY ORCHARD CO.**

The formation of this company marks the beginning of a new era in Wisconsin horticulture. We have had small commercial orchards for twenty-five years or more, but in nearly every case these are in connection with general farming and this company has undertaken the first co-operative venture in the state.

The full name of the company is The Sturgeon Bay Orchard and Nursery Co. The company is capitalized for \$40,000, the incorporators D. E. Bingham and A. W. Law-



**Mr. Sullivan's Modern Home**

not skilled in writing and yet we challenge any of our members to tell more in the same number of words or tell it more effectively.

Mr. Sullivan's letter may read like

have had quite a few for the last 3 years. Last year I sold about \$250 worth. I now own a farm of 200 acres. I raise onions by the carload, also cabbage and beans.

rence, Jr., of Sturgeon Bay; R. J. Coe, C. J. Telfer, Dr. W. T. Clark, O. B. Cornish and J. M. Hager of Ft. Atkinson.

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# Wisconsin Horticulture

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FREDERIC CRANFIELD, Editor  
 Secretary W. S. H. S., Madison, Wis.  
 ASSOCIATE EDITORS, Fourteen Hundred Mem-  
 bers of the Society.

Sent only to members of the Society. No sub-  
 scription list. Wisconsin Horticulture will be  
 mailed to every member of the W. S. H. S.  
 whose fee is paid in advance.

Send application for membership to Secre-  
 tary, Frederic Cranfield, Madison Wis., ac-  
 companied by fee.

Fee for annual membership 50 cents. Life  
 membership \$5.00. Remit by Postal or Express  
 Money Order. Coin may be sent safely if  
 wrapped or attached to a card. Personal  
 checks not accepted. Stamps accumulate  
 faster than we can use them. Do not send  
 stamps if any other means are available.

Application for entry as second-class matter  
 at the Post office at Madison, Wis. pending.

Advertising rates made known on application.

## NOTICE

A blue pencil mark in this space  
 means that your membership has  
 expired. No other notice will be given.  
 A prompt remittance will insure you  
 the next number of the paper. Send  
 Fifty Cents in coin, or Money Order  
 to Secretary F. Cranfield, Madison,  
 Wisconsin.

A dollar bill pays for two years.  
 Life membership is but Five Dollars.

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 A. J. SMITH, Vice-President.....Lake Geneva  
 L. G. KELLOGG, Treasurer.....Ripon  
 F. CRANFIELD, Secretary.....Madison

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### BOARD OF MANAGERS

WM. TOOLE F. CRANFIELD  
 L. G. KELLOGG

Annual Membership.....\$0.50  
 Life Membership.....5.00  
 Remit to Secretary W. S. H. S.  
 Madison, Wis.

## ANNOUNCEMENT

This paper is purely an experi-  
 ment and its success or failure rests  
 largely with the members of the so-  
 ciety.

The secretary has been appointed  
 editor but no one alone can edit a

paper worth while and as the society  
 cannot afford to hire associate editors  
 every member must help.

Beginning with 1896 our Society  
 published a monthly magazine, The  
 Wisconsin Horticulturist, which was  
 sent free to members but for reasons  
 which seemed good to the Executive  
 Committee it was discontinued in  
 March 1903. It was a good little  
 magazine and its untimely end was  
 greatly mourned by the members.  
 We sincerely hope that the present  
 venture may be more successful. If  
 every member of the Society will  
 please consider himself an associate  
 editor of Horticulture and send but  
 one contribution to its columns each  
 year we can have a good paper.

Notes on crops and prices, methods  
 of culture, new varieties, spraying  
 notes, prevalence of insects and dis-  
 eases, helpful hints of all kinds and  
 not forgetting personal notes. If you  
 have planted an orchard or berry  
 patch, tell us about it; if your son or  
 daughter gets married let us know  
 about it. If each member will do a  
 little, realizing that he assumes an  
 obligation with acquiring member-  
 ship, will give the best of his knowl-  
 edge and experience for the benefit  
 of all, we can have the very best hor-  
 ticultural journal in the land. If,  
 however, every one expects to *take*  
 and none to *give* then our paper will  
 be a failure.

It will be the business of the ed-  
 itor to classify the material fur-  
 nished by the associate editors. He  
 expects also to glean all of the hor-  
 ticultural papers worth while of the  
 best things printed in them and boil  
 it down for Horticulture readers.

The Experiment Station and Agri-  
 cultural College literature can also  
 be itemized each month.

W. S. H. S.

HORTICULTURE will also be the of-  
 ficial organ of our Society contain-  
 ing all announcements, programs,  
 etc., taking the place of the circulars  
 and bulletins now in use.

### ADVERTISING.

Advertising will be carried of re-  
 liable firms only. Our home nurseries  
 should all patronize us to the extent  
 of a card at least.

Spray pump and insecticide deal-  
 ers, seedsmen, fruit package dealers  
 and other lines affecting horticulture  
 will no doubt realize the worth of an  
 ad. in a paper every reader of which  
 is interested in their wares.

### FINANCIAL.

The paper must be self-supporting  
 and not a penny of the money re-  
 ceived from the State is to be used  
 in any way. The membership fees  
 and revenue from advertising should  
 easily do this with a safe margin be-  
 sides.

Application has been made for en-  
 try as second-class matter and if this  
 is granted it will save the Society  
 over \$3.00 a year in postage now ex-  
 pended on programs, notices to mem-  
 bers, etc.

The financial end will take care of  
 itself, it is the quality of the mate-  
 rial from month to month that is the  
 doubtful factor and this will depend  
 on the interest of the membership  
 body and their willingness to sacri-  
 fice a little of time and effort for the  
 common good. If the response war-  
 rants the continuance of the maga-  
 zine its value cannot easily be reck-  
 oned.

How many will volunteer? Let's  
 hear from you as soon as you receive  
 this number. Write Editor Wiscon-  
 sin Horticulture, Madison, Wis. A  
 postal card will do if you are in  
 a hurry. Your opinion of the scheme,  
 your offer to help and at the bottom  
 a dozen words for publication. Who  
 will be first?

FREDERIC CRANFIELD, Editor.

## ADVERTISEMENTS

We solicit advertisements. Every  
 nursery firm and seedsmen in the  
 state is hereby solicited and we hope  
 to receive orders for at least one full  
 page of ads. in this line for the Oc-  
 tober issue. For Sale, Wanted or  
 Exchange ads. are solicited from  
 members for any article whatsoever.

We expect to carry ads. of all  
 kinds of horticultural goods and sup-  
 plies. This will be in a sense a trade  
 journal and as such prove a valu-  
 able advertising medium.

We guarantee a circulation of fif-  
 teen hundred all interested in some  
 branch of horticulture. Write for  
 rates.

**CONCERNING HORTICULTURE**

How do you like it?

Who will be the first?

Write the editor about it.

Send your first contribution for the October number.

It is to be distinctively a family paper, a family of fourteen hundred members.

This paper is a forward move and will be a test of our strength and usefulness.

Suggestions and criticisms always welcome. How do you like the size of the page? The type?

It is also to be practical. We want the practical experience of practical growers of fruit, flowers and vegetables.

The editor will look up the best from our good friends the scientists from month to month but most valuable of all will be the simply told tale of success or even of failure.

The home garden and orchard will have a prominent place in future issues but for this month it has been difficult to find timely material. Here is a chance for our 1400 assistant editors.

We must move *forward*. If once we stop the forward movement we will immediately begin sliding down hill. This is a mangled bit of philosophy but it is true of our Society. We do not glory in numbers but in quality of membership and the kind of work we are doing. Let us keep on moving forward and upward.

Remember that with the membership body must rest the success or failure of the enterprise. If you help by contributing, by giving to the Society through the medium of HORTICULTURE the benefit of your experience, if every member will help a little then we have success assured.

There is no dearth of information, the trouble is to get the people who *know* to *tell*. While we bring out an immense amount of valuable information at our meetings the Secretary has always been aware of veritable gold mines of practical help that could not be touched owing to modesty or diffidence.

We hope that HORTICULTURE will tap some of these mines. Don't be afraid to write. This is not a journal for literary critics and if we lapse in diction occasionally we will leave that to literary cranks, what we want most of all is good common sense in a plain dress.

WISCONSIN HORTICULTURE is to take the place of the Bulletins which have been issued from time to time. If we have any information to impart it can be done as well through the medium of a monthly paper as in any other way. The bulletins have been a heavy expense both for printing and postage.

Remember the only way you can get this paper is by joining the State Horticultural Society. Certain slight restrictions have been recently attached to the acquiring of membership but these are not burdensome.

Those desiring to become members must sign a regular application while applicants for life membership must be recommended by a life member or an annual member in good standing for at least two years. Blanks will appear in each issue and additional copies will be sent on application.

In a multitude of counsel there is much wisdom. Let us hear from you. When you are writing about this add a few words about crops, etc. We will follow the plan adopted by all reputable publications concerning contributions, viz., the writer must sign his or her name. No anonymous contributions will be accepted for publication. If you do not want your name to appear your wishes will be respected.

**COST OF HARVESTING APPLES**

Estimates vary greatly regarding the cost of marketing apples. W. H. Robson, of Orleans county, N. Y., makes the total 56 cents, which includes 31 cents for the barrel, 12½ cents for picking, 10 cents for packing and 2½ cents for hauling to the station. Freight and commission would average as much more except in localities near to market.—Green's Fruit Grower.

**FIRST CLASS NURSERY STOCK  
IN GREAT VARIETY**

Consisting of

**FRUIT, SHADE AND ORNAMENTAL TREES**

Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grape Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

**The Coe, Converse & Edwards Co.**  
**FORT ATKINSON, WISCONSIN**  
**Wisconsin's Largest Nursery**

**JEWELL  
MINNESOTA  
GROWN  
Nursery Stock**

Complete assortment of Fruit and Ornamental stock in all varieties suited to northern culture. A specialty of Hardy Shade Trees, Windbreak Stock, Evergreens (Coniferous), Deciduous Shrubs, Apples and Native Plums.

**THE JEWELL NURSERY CO.**  
**LAKE CITY, MINN.**

1500 Acres

Established 1868



### QUESTIONS AND ANSWERS

The editor expects that this department will prove the most interesting and valuable feature of the paper.

For several years a free Information Bureau has been maintained by the Secretary and thousands of inquiries have been answered. This feature of Society work will be continued in a modified form. Questions which require an immediate answer will be taken care of as before by a personal reply by mail as soon as received; others will be answered in our Question and Answer Column.

Send in your questions, the more the merrier, the answer will be forthcoming. The editor claims to possess the best private library of horticultural literature in the state and one of the best in the country, having purchased entire the Goff library and spent most of his income since in making additions. From this source, as well as bulletins and reports of all of the different experiment stations, government reports, and exchanges including every horticultural journal of importance in the United States very many questions can be answered at once. Then we have fourteen hundred assistant editors, the entire force of the agricultural college and the Department of Agriculture at Washington. All of this is available to members for the small price of Fifty Cents a year. Can you beat it?

### LOCALS

A column each month will be devoted to local horticultural societies and officers and members of locals are requested to send in notes concerning the doings of their society.

Copies of the best papers presented at the meetings should also be sent for publication.

With the hearty co-operation of the different locals we may have here one of the very best departments of horticulture. Members and officers of locals! Will you help?

In many states the local societies are as a tower of strength to the state society and a very material aid in increasing membership. This is

measurably true in this state and conditions are steadily improving.

We now have twelve locals totaling 315 members. A list of the societies with number of members and name of secretary follows:

Algoma—8 members; H. C. Christenson, Oshkosh, secretary.

Barron Co. Hort. Society—24 members; F. W. McKinney, Barron, secretary.

Bayfield Peninsula Hort. Society—87 members; O. Flanders, Bayfield, secretary.

Gays Mills Hort. Society—30 members; E. G. Briggs, Gays Mills, secretary.

Lake Geneva Gardeners and Foremen's Ass'n.—43 members; A. J. Smith, Lake Geneva, secretary.

Manitowoc Co. Hort. Society—31 members; C. W. Meisnest, Manitowoc, secretary.

Madison Horticultural Society—35 members; Wm. G. MacLean, secretary.

Omro Hort. Society—11 members; Miss Minnie Ham, Omro, secretary.

Oshkosh Hort. Society—14 members; Ward B. Davis, Oshkosh, secretary.

Rushford Hort. Society—8 members; Miss Eva Loope, Eureka, secretary.

Poysippi Hort. Society—10 members; Geo. Jorgensen, Poysippi, secretary.

Sheboygan Co. Hort. Society—14 members; A. H. McIntire, Sheboygan, secretary.

The locals are increasing in number and membership each year. Concerning probable success of local societies we quote from annual report of the secretary, 1910 volume:

"In order that a local society should be a success there must be back of it a strong 'dollars and cents' interest, enough people in that particular locality who can see some material benefit to be derived from membership and attendance. Either this or else there must be at least one person in the community who will give of his time and energy early and late to maintain life and interest in the organization, for we have not as yet advanced to that point found in the older communities of the eastern states and Euro-

pean countries where aesthetic horticulture, pure art, has followers sufficient to attract and hold together a local art or improvement association."

### APPLE GROWING IN ILLINOIS

Our neighbors on the south are not slow to appreciate the advantages of co-operation. Chauncey P. Reynolds in a recent number of The Prairie Farmer gives an excellent account of the Illinois Orchard Co., a concern which owns and operates 1075 acres of apple orchards with 900 acres in bearing.

Senator Henry M. Dunlap of strawberry fame is general manager of these orchards which range in size from 25 to 160 acres and are located in four counties. Probably not less than \$500,000 of good Wisconsin money has been invested in Washington, Oregon and Montana orchard lands during the past two years. Just think of what could be done with even one-fourth of this sum in Wisconsin!

## PEONIES

Now is the time to plant them and as we have a large

### SURPLUS

we will furnish the following rare and beautiful varieties for September and October planting. Good strong divisions at the following prices.

FESTIVA MAXIMA—Enormous blooms 7 to 8 inches in diameter, color, snow white with purple splashes in center petals	25
FRANCOIS ORTEGAT—Purplish crimson with golden anthers	10
GRANDIFLORA RUBRA—Blood red, a grand flower, one of the largest in cultivation	10
HUMEI—Cherry pink, cinnamon scented strong grower, graceful habit	10
MARIE LEMOINE—Enormous sulphur white blooms, magnificent variety	20
MODESTA—Bright rose pink, very double, a great bloomer, sweet scented	10
GOLDEN HARVEST—Yellow and white, great bloomer	10
RUBRA SURPURBA—Brilliant deep crimson, very late bloomer	15
FELIX CROUSSE—The most beautiful red peony in existence, brilliant red with ruby flamed center	25
FLORAL TREASURE—Beautiful flesh pink	15

SPECIAL OFFER—For One Dollar we will send by express or freight one each of these ten beautiful and rare peonies. The chance of a life time. Order today.

**WISCONSIN NURSERIES**  
Union Grove, Wisconsin

**STURGEON BAY ORCHARD CO.**

(Continued from Page 3)

This company has acquired 160 acres of land adjoining the city limits of Sturgeon Bay, 150 acres of which are available for planting. The 1910 planting consists of 21 acres of apples, 38 of cherries and 4 of plums. Of the apples 1,700 trees are Wealthy and 400 Dudley set 20x20 ft. The cherries are equal parts Early Richmond and Montmorency; plums all Burbank.

Fifty acres more of cleared land is being prepared for planting next spring. The remainder of the farm is forest and will be cleared and planted at the earliest possible date.

If the record of fifty years counts for anything this should prove one of the most profitable ventures in the state. We need more of them, more men who are willing to back their judgment with a little cash and help put Wisconsin on the list of fruit states where it belongs, just a notch above Michigan.

About the time when the "rain-bow chasers" who have invested their cash in western orchard enterprises with the expectation of getting \$4.00 a bushel for apples are looking around for a chance to make a living, such companies as this will be returning 20 to 25 per cent annually on its investment.

Where will the next company locate? Sturgeon Bay, Chippewa Falls, Baraboo, Gays Mills or Wausau?

**FRUIT SELLING ORGANIZATIONS**

(Continued from Page 2)

By these methods, co-operation in the fullest sense, Hood River apples have become known the world over and Hood River Valley instead of being a pin point on the map is a big black spot.

Wisconsin growers are not slow in this matter of selling organizations by any means, leading Illinois, Minnesota and Iowa, and right close behind Michigan.

The first successful association of this kind in Wisconsin was started at Sparta in 1906. Its doings have been reported in our Annual each year since and need not be reported here. It may be said, however, that through this or-

ganization the berry business of Sparta has been rescued from what promised to be complete demoralization, steadily falling prices and discouragement and brought it to a paying basis, forced the jobbers and dealers to pay a fair price for berries and during its four years of existence saved money enough to erect a fine building. (See Annual Report 1910, page 54.)

Until 1909 the Sparta Fruit Growers Organization occupied the field alone, but within the past year five similar organizations have been formed, two at Bayfield, one each at Merrilan and Alma Center and one at Sturgeon Bay.

We hope to make the selling of fruits a distinct department and give from time to time results attained and methods used in obtaining them.

In this way every member may see the value of co-operation in selling. Remember that co-operation at the growing end can be encouraged by boosting the State Society, by augmenting its membership and contributing to Horticulture.

**[THE 1910 APPLE CROP]**

Secretary Rothwell of the International Apple Shippers' Association submitted the following report on the 1910 apple crop at the recent annual meeting of the Association at Niagara Falls:

"I herewith submit to you my report on the condition of the apple crop of the United States and Canada August 1, 1910, as compared with August 1, 1909. Please bear in mind that, as usual, and in accordance with the practice of our association for several years, we make the last year's crop in each state the basis of this year's estimate and increasing or diminishing the percentage as the crop is correspondingly lighter or heavier than one year ago. The basis upon which we arrive at the given percentage of each state is sometimes misconstrued, not only by our membership, but by the press in discussing our figures. For illustration, if a given state is rated at 80 per cent it means the crop is this year equal to four-fifths of the crop

of one year ago, or if given at 200 per cent the crop in such state is just twice as large as one year ago.

"Upon the important question of quality, the quality is decidedly better than one year ago; New England, New York, Pennsylvania and Ohio all promise much better quality than a year ago, as does all of the southern group, while the Pacific group promises exceptionally good quality for the entire group, which will be the heaviest ever harvested.

"The Middle West, or Ben Davis group, ranges from poor to good quality, with a considerable portion of it with only fair quality. If present prospects are maintained until harvest time our country will have plenty of apples, all of better than average quality, which should have a good consumptive outlet at moderate prices to the consuming public."

**I. A. S. A. APPLE CROP ESTIMATE.**

Percentage indicates comparison with the 1909 yield.

**New England Crop.**

Maine . . . . .	120	Fair to good.
New Hampshire . . . . .	200	"
Vermont . . . . .	110	"
Massachusetts . . . . .	130	"
Connecticut . . . . .	125	"
Rhode Island . . . . .	90	"

**Central Group.**

New York . . . . .	100	"
Pennsylvania . . . . .	90	"
New Jersey . . . . .	225	Poor to good.
Delaware . . . . .	250	"
Ohio . . . . .	240	"
Michigan . . . . .	40	"
Wisconsin . . . . .	20	"

**Middle West or Ben Davis Group.**

Indiana . . . . .	175	Poor to good.
Illinois . . . . .	40	"
Missouri . . . . .	90	Fair to good.
Kansas . . . . .	200	"
Oklahoma . . . . .	125	"
Arkansas . . . . .	150	Poor to good.
Iowa . . . . .	15	"
Nebraska . . . . .	40	"

**Southern Group.**

West Virginia . . . . .	120	Fair to good.
Virginia . . . . .	225	"
Maryland . . . . .	85	"
Kentucky . . . . .	175	Poor to good.
Tennessee . . . . .	100	"

**Pacific Group.**

Colorado . . . . .	70	Good.
Idaho . . . . .	300	"
Utah . . . . .	200	"
Montana . . . . .	90	"
California . . . . .	115	"
Oregon . . . . .	275	"
Washington . . . . .	300	"
New Mexico . . . . .	90	"

**Canada.**

Canada, not including		
Nova Scotia . . . . .	70	Poor to good.
Prov. of Nova Scotia . . . . .	40	"

### WHAT COLLEGES DO FOR AGRICULTURE

Measured by the amount saved to the agriculturists of our country alone, as a direct result of experiments and training carried on in the colleges of the United States, the money invested in these institutions is paying high interest.

Professor A. Caswell Ellis of the University of Texas, describes annual losses of \$5,000,000 in California from the white scale, of \$30,000,000 in Texas from the cotton boll weevil, and of \$40,000,000 in the South and Southwest from the cattle tick, which have either been materially checked or entirely stopped as a direct result of laboratory experiments and investigations in our colleges and universities.

In the state of Illinois, which Professor Ellis uses as an illustration,

\$250,000 is invested in the study of agriculture. We read:

"By means of careful and intelligent application of the laws of botany and principles of heredity, Professor Hopkins and his colleagues in the university developed a new variety of corn and a new method of cultivation especially adapted to conditions of that state. This seed has been distributed and this new method taught to the farmers, and these are now in use all over the state, with the result that the average corn yield in Illinois has been increased five bushels per acre, or a total increase for the entire state of forty-five million bushels per year. Omitting the dozen other similar services rendered to the state by this university, we see that it returns in wealth to the state each year more than fifty times the \$250,000 spent in agricultural education."

### WINTER WHEAT

#### OLDS' IMPROVED TURKISH RED.

TURKISH RED or Turkey Red has proven the best variety of winter wheat year after year under all conditions.

It is the **HARDEST** variety, withstanding the severest winters as well as being practically rust proof.

It is a plump handsome appearing wheat making the best quality of flour.

It **OUTYIELDS** all other wheat averaging year after year as high as 30 to 40 bushels per acre. Its yield record is given as over 59 bushels per acre.

It is a bearded red wheat, growing a strong stiff straw with large plump heavy kernels. It has proven itself well adapted to nearly all sections of Southern Wisconsin.

Our **IMPROVED TURKISH RED** is the **PUREST** and **BEST**.

Stock this year is unusually fine. Sow in September or latter part of August,  $1\frac{1}{2}$  to 2 bushels per acre.

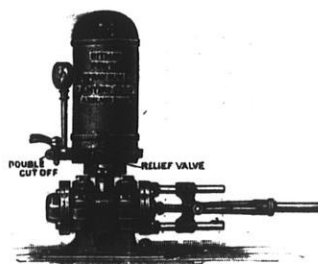
#### PRICES:

Bushel \$1.75; 2 to 10 bushels at \$1.60; 10 bushel or over at \$1.50, bags included.

**L. L. OLDS SEED COMPANY**  
Drawer 65 Madison, Wisconsin

## MYERS' SPRAY PUMPS

FIG. 1363



For spraying Large and Small ORCHARDS, PAINTING, WHITEWASHING, Etc.

Made in many styles for all requirements.

The Modern Spray Pumps that pump Easy and throw a full flow.

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**F. E. MYERS & BRO.**

ASHLAND,  
O410

FIG. 653



ASHLAND PUMP and  
HAY TOOL WORKS

FIG. 640



**Subscribe For  
Wisconsin  
Horticulture**

### NOMINATION BLANK

*Applications for life membership must be accompanied by nomination blank, signed by a life member or annual member in good standing for two or more years.*

I nominate \_\_\_\_\_

for Life Membership in The Wisconsin State Horticultural Society.

Name \_\_\_\_\_

P. O. \_\_\_\_\_



# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

October, 1910

No. 2

## ON THE SHORES OF GITCHE-GUMEE

Bayfield is surely coming. The people up there will not admit this as true, they claim to have already arrived and while some of us may yet entertain some lingering doubts or wait to be convinced, Mr. W. Knight is not in either the doubting or the waiting class

Mr. Knight began planting fruit trees at Bayfield in 1906 and has been right on the job ever since planting trees at a rate to make the fellows in the waiting row dizzy. Some of our doubting class have a suspicion that he is a little demented but not the Bayfield people,—they know him too well and know if Knight plants trees it is not an idle fancy but a good business venture founded on something substantial.

If you can get the confidence of the Bayfield people they will tell you a story about Knight and the apple trees. Several years since it seems he determined to retire from business, lumbering, but as usual in such cases "went to pieces" physically. After consulting many doctors one came who was brave enough to tell him the plain truth,—that he was already in fact a dead man, not more than six months to live, unless,—he should "get busy" at once, get into some line of active work. What better than fruit growing? Where better than the high bluffs along the Bayfield shore? So if ten years hence Bayfield shore is known as one of the big fruit producing sections of the northwest, if big boats leave the docks there loaded with apples as they now do with ore and grain, to Mr. Knight will belong much of the credit as the "man who dared," the man of faith. We asked of him to tell us about his orchard planting and we have the following reply under date of July 20:

"I received your letter wanting to know how my orchard interests are getting along this year. You know

it was the spring of 1906 that I first started to plant a commercial orchard, I have planted trees every year since as follows: 1906, planted 2000 apple trees; 1907, planted 500 apple trees; 1908, planted 1200 apple trees, and 600 cherries; 1909, planted 500 cherries, 50 standard pears, 2000 cur-

rents, one-tenth of a crop, except the English Morrells, these have a full crop.

"The varieties I am planting commercially are the following:

"Apples—Yellow Transparent, Dudley, Duchess, Wealthy, Patten Greening, N. W. Greening, Eastman, Tran-



Wm. Knight of Bayfield — the Man who Dared

rents, 5 acres strawberries and one acre blackberries; 1910, 1200 apples, 1500 cherries, 30 pears and 2500 currant bushes. My strawberries escaped all frost without injury and I never saw more fruit on the vines, but the long drought ruined the crop. The early frosts in April caught my cherries and currants, and I had only

scendent Crab and Hyslop Crab.

"Cherries—Early Richmond, Montmorency and English Morrells.

"Pears—Standard, Bartlett and Wilder.

"Pears—Dwarf, Duchess and Louise Bonne.

"I have forty acres now ready for planting to trees next spring, and I

am getting ready twenty acres more, and if I get it in condition it will be planted also. That will make about one hundred and thirty-five acres in apples and cherries, and five acres in currants and blackberries, and one acre in pears.

"All the trees I have planted are doing fine and quite a sprinkling of apples are hanging on the four-year-old trees. Where the trees set too much fruit I pick them off, I only allow a few apples on the tree as I do not wish to retard the growth of the tree.

"I have one four-year-old Bartlett pear tree that is looking fine. In



A. D. Campbell Com. of Immigration supporting Bapfield apples. A three year old tree

1908 I planted two Bartlett pear trees, one died that summer and the other one is living.

"I have a few trees of different varieties of apples, pears and sweet cherries I am testing. I also have a few plums in bearing. Moore's Arctic is the best I have tested and the fruit and tree does well here. The De Soto, Wolf and Surprise do well, but I do not like the fruit compared with the Moore's Arctic. My Governor Wood sweet cherry had some fruit on this year, three years old.

"All trees that have been planted two or three years that have had cultivation are growing and looking as thrifty and well as I ever saw them,

notwithstanding the long drought. My trees have made a splendid growth made new wood from twelve to twenty inches long now—but trees planted this spring are not doing so well and feel the drought severely and I expect the weak ones will die unless rain comes soon.

"You know my four-year-old apple orchard was planted on land that was never stumped or plowed and stood that way for two years. Last year I stumped and plowed about half of it and this spring I finished stumping and plowed it and kept it cultivated. All my other land was cleared and plowed before the trees were planted and from my experience I would advise the clearing and plowing land before planting to trees, because it costs more to clear it after the trees are planted than it would to clear before planting, and the trees do better.

"I planted my trees the following distance apart: One orchard of apples (25 acres) 20x24 feet. One orchard (the four year old) 20 acres, 24x24. Third orchard, when completed, about sixty acres, 24x24. Cherries, Early Richmond and Montmorency, 16x20. English Morrells, 12x15. Currants and blackberries, 4x8 feet. I spaced the distance of planting from what I could see of other trees growing here from twenty to thirty years old and 24x24 is plenty close for apples, also for cherries.

"A word now as to the long continued drought. I have lived in this country forty years and we never had such a continued drought and term of heat. Going back from the present to early spring, over a period that we should have had a normal rainfall of 12 to 15 inches, we have not had more than one inch as per government report, and yet all cultivated crops are looking well, and cultivated trees are doing fine except those planted during the drought, and yet they live.

"I think the large body of sandstone extending back from the lake under all of this land must have something to do with it. This rock is like a sponge to absorb water and is continually drawing a supply from the lake, and by capillary attraction

of the soil continually drawing it to the surface and if conserved by cultivation in a dust mulch, plant growth will get a supply of moisture for a long period, and I believe this theory is founded on logical reason. I only mention this for others to study over.

"Last fall we experimented on planting apples and cherries in the fall, and as far as our experience goes we like fall planting the best, it seems to quicken the spring growth.

"Very truly yours, WM. KNIGHT."

### RABBITS

The damage to fruit and ornamental trees caused by rabbits last season was very extensive. We have no means of estimating the damage in dollars and cents but feel safe in calling it half a million or more.

Rabbits are an infernal nuisance and there is neither sense nor reason in protecting them. Here is the law as it now stands:

"It shall be unlawful and is hereby prohibited to take, catch, kill, hunt, or pursue: Any rabbit, grey fox, or black squirrel between the first day of February and the 10th day of October next succeeding, except as otherwise provided, and excepting further that in the counties of Chippewa, Rusk, Eau Claire, St. Croix, Pierce, Portage, Waupaca, and Waushara, it shall be unlawful to take, catch, kill, hunt, or pursue any rabbit, grey, fox, or black squirrel between the first day of February and the 10th day of September next succeeding; but in the counties of Crawford, Grant, Iowa, Kenosha, Lafayette, Richland, Sauk, and Vernon, there shall be no closed season for the hunting of rabbits."

Will some well informed person, preferably a member of the legislature that passed this law please tell us why the fruit growers of Sauk Co., for instance, are entitled to more protection than those of Fond du Lac Co.? That is exactly the state of affairs and it is up to the fruit men of the state to have this law repealed. We would like to have opinions from our subscribers.

One thing is reasonably certain if our Society wants the law changed or repealed and the members all pull together it can be done. Write Editor

### THE OCONOMOWOC MEETING

It really began last January when Member of the Executive Committee from the Fifth District, H. C. Melcher arose in committee meeting and set forth the claims and the advantages of Oconomowoc as a fit place for our Summer Meeting.

We were given assurance of a cordial welcome by Oconomowoc people and every last soul and sinner in the town and surrounding country turned out to help make good Melcher's promise.

Real downright horticultural enthusiasm is not so thick around Oconomowoc but that it can be easily penetrated, in fact it was quite likely that many of the people who exerted themselves to make us at home really wondered all the time we were there what it was all about but they didn't allow it to interfere with their hospitality.

It was the "glad hand" from beginning to end and so sincere that we all went away with the determination to come again some time on our own account.

Mayor Edgerton was glad to see us,—he said so, and so were all the other officials not excepting the Chief of Police, tall but not talkative, who met us at the train and was there again to see that we got out of town—safely. It is said that he spoke but once during the two days and that was when looking over the huge pile of choice vegetables presented to him by exhibitors he was heard to say,—“Come again, next week.”

We feel very kindly toward Oconomowoc and all its good people and we only regretted that a few La Crosse people were not there to learn a lesson in hospitality.

The program was carried out exactly as printed and without a skip or break. Mr. C. B. Whitnall of Milwaukee, one-time gardener and florist, now city treasurer, spoke of the city dweller and the city garden. If the Milwaukee Socialists are all like Mr. Whitnall we want to know more of them. Here are just a few of the thoughts:

“Our Indian didn't have a Horticultural Society. He didn't need one. He obeyed the dictates of nature,

and nature makes horticulture a business. The so-called progress of civilization appears to have been actuated by the desire to get something for nothing. This has forced a division of labor with its consequent development—an occasional sacrifice of first one attribute to our well being, then another, until now we have one-third of our population crowded into large cities, where deterioration is universal, where the third generation of city born are more or less degenerate, where the race would become extinct were it not for new blood injected from fruit laden and floral decorated environment. \* \* \* The fundamental basis for a higher and better living, therefore, is the individual garden experience. It is really astonishing what influence over a whole family can be acquired by getting the children interested in gardening a piece of ground twenty-five feet square. There is the economic value of such a garden—it is very attractive to housekeepers. Then the pleasurable exercise of all the faculties—there is no occupation that utilizes all your knowledge, be it much or little, like garden work. It is nature's laboratory that is sure to exercise your intelligence. The success of the garden necessitates the combined physical and mental exercise under atmospheric conditions that builds healthy bodies. The school garden is by far more important than commercial trickery. Children take to it as natural as a duck to water. To punish a truant is like poisoning an invalid. Gardening is the never-failing cure for truancy, because it fills a gap in our city life for which every soul yearns. The garden is the only leverage that can lift the city dweller into normal activity.”

G. W. Reigle.—Reigle of Madison read a 15 minute paper on “A City Man on a Small Fruit Farm” and for exactly 15 minutes held the attention of every one present. It was concise, pointed and sound. We expect to give it entire in an early issue. The situation was summarized in the following Reigleisms:

1. “In middle life, without capital, do not leave a good city business for an uncertainty on any farm.”

2. “If you feel you are lacking in initiative do not leave a salaried position for the farm. Initiative means the ability to do the right thing at the right time without being told.”

Cor. 1. a. Let the sissy sizzle in silence in the sickly city.

3. “My city neighbor, if you have brains, the fruit farm offers you the grandest opportunity of your life to exercise them, bringing to you commensurate returns.”

4. “There is easy money raising fruit, affording a delightful occupation, a table with most wholesome food and brings you in personal contact with the best families.”

5. “Many a laborer in factories, stores and mills has prolonged his life ten to fifteen years by moving onto the land where the virtues of out-door exercise have wrought their miracles of healing.”

6. “We need more horticulturists in the field and fewer make-believe horticulturists in real-estate offices.”

7. “Horticulture is the most healthful, the most useful, and the most noble employment of man.”

Every one was pleased to meet Mr. A. L. Hatch, in fact of late years few of us have had the privilege. His talk on the opportunities for city-bred people in Door Co., left no doubt in the minds of his hearers that the right kind of man should be able to “make good” at Sturgeon Bay regardless of race, color or previous conditions of servitude. We quote only his closing words:

“Among those now engaged in actual or prospective fruit culture at Sturgeon Bay we have sailors, doctors, printers, clerks, tailors, university students and graduates, farmers, teamsters, engineers, barbers and carpenters, as well as fishermen and farmers. With such a wide representation among the various trades and professions the city man should find encouragement to believe that he too might join the ranks of the prosperous, under conditions that make life well worth living.”

Ward B. Davis of Oshkosh was not at all certain that any and every city man could make a success of market gardening. His idea of the proper combination was a strong, energetic man that has saved about

\$2,500. "A man with this capital and a family that is a help ought to do well."

After discussing in detail equipment for the beginner, crops and marketing Mr. Davis concluded as follows:

"I would advise every man to try gardening if he intends putting his whole soul into the work and has a genuine love for that particular kind of work. If he has not there is little use to try."

Mr. Ernest Gonzenbach of Sheboygan was there; it is getting to be a habit with him to attend horticultural meetings and soon it will be impossible to keep him away from our conventions. Mr. Gonzenbach is President of an interurban railway, of a light and power company and a few more of the industries that make of Sheboygan such a humming, buzzing little city. Mr. Gonzenbach is modest,—about railways, etc., but not about gardening, farming and fruit growing for he is now a farmer, the virus is in his blood and no matter how deeply he may be involved in the city's business the grip of the soil will hold him and he is "one of us" for all time. All this is personal but for that matter so was the paper on "Advantages the Country Offers to the City-bred Man." It was a picture of possibilities but drawn by a business man who can bring to farming that which it needs most of all today, business training; it was more, it was a common sense view emphasized by a strong personality cutting through the shallow varnish and veneer of the middle class city dweller. Our readers will have the paper entire in an early issue.

The Back to the Land session was closed by a clear, business-like talk by Prof. J. G. Moore, who outlined the courses offered to would-be horticulturists by the State University. Prof. Moore emphasized the statement of a writer in a popular magazine that the University of Wisconsin "teaches everything everywhere." For the young man who aims to be a scientist the four-year course is waiting as soon as he graduates from the high school. If he wants a two year practical course with enough of the scientific to make a good mixture

he need not wait for high school graduation. If either of these seem too long there is the ever popular Short Course of fourteen weeks which may be followed the next winter by fourteen weeks of advanced work. To meet the needs of the very needy a ten days' midwinter course is offered. This would seem to be enough for anybody.

The Gardening Session was not less interesting than usual. Flowers from Frost to Frost and Best Varieties of Vegetables for the Amateur were topics ably presented by two delegates of the Lake Geneva Gardeners' Association. Our Lake Geneva brethren are not always in close touch with the commercial end of our business nor do they pretend to be but when it comes to the *best* in flowers and vegetables and the way to grow them we stand ready to listen to these gardeners who have been trained from childhood in the fine art of producing only the *best* of everything.

Mr. E. H. Niles of the White Elm Nursery Co., of Oconomowoc spoke understandingly and from experience about "Making Country Homes Attractive." This is Mr. Niles' long suit, making homes attractive, and after listening to him we were satisfied that the planting of trees, shrubs and flowers for best effects even on so limited an area as a farm yard involves a knowledge of landscape art.

At 4:30 P. M. as per schedule President Toole guided the crowd down to the lake front where Prof. J. G. Milward was waiting with spray pump loaded to the nozzle, barrels of Bordeaux, tubs of lead arsenate and other paraphernalia and impedimenta too numerous to mention, not forgetting a blue jeans suit. Milward wore the jeans and we are suspicious that it was less for protection than for the purpose of getting close to the farmers. At any rate he does all of that and from what we know of "Jimmie" Milward's field work throughout the state we are led to believe that there is no one else out at the College who has done more to inspire confidence in the splendid work being done for the

farmers through the Extension Department.

The first great task encountered by the College is to convince the farmers and fruit growers that the scientific fellows, the book-farmers really know anything and to many of them it is a revelation to meet a real live "Professor" and find that he walks on his two feet and not on stilts, speaks in the language of the farm and—wears jeans.

Mr. Milward's talk was clear and concise, the very A B C of the art, every step in the making of Bordeaux illustrated—and explained.

The evening program consisted of excellent music by a local quartette and the annual illustrated lecture by Prof. Elsom. We must adopt Prof. Elsom,—legally. We have enjoyed these snappy illustrated talks for three seasons now and a summer meeting would not be complete without one.

#### Exhibits

The exhibits in all lines were more extensive than any one anticipated. A fair showing of apples, 43 plates in all, a very good display of garden flowers and some splendid exhibits of vegetables. M. Jorgensen, gardener for John Dupee and P. P. Cserny, gardener for Mrs. H. H. Shufeldt, each exhibited choice vegetables and flowers. In addition to these the Lake Geneva Gardeners brought along a vegetable show that for variety and quality could not be excelled; everything in the catalogs from Asparagus to Turnips was there, including Swiss Chard, Okra, Kohl Rabi, Artichoke, Broccoli, Endive, Leek, besides the regular kinds. This display was not entered for premiums, just a compliment from the Lake Geneva delegation.

#### Among Those Present

Among the officers all were present except Nourse and Moyle of the Executive Committee. From Milwaukee, C. B. Whitnall, Dr. Babcock, Mr. and Mrs. E. E. Dunning, Mrs. Richardson, C. D. MacGillfrey and many others not members.

N. A. Rasmussen and A. Christensen of Oshkosh, H. O. Cooper of Montello, eight delegates from Lake Geneva, Geo. J. Kellogg and wife



and about twenty-five other members from nearby towns whose names cannot be recalled. Unfortunately no register was kept.

The attendance from the city, from Waukesha and towns north and east made up an audience quite equal to that at any recent meeting.

#### Premiums

The following premiums were awarded. Mr. Whitnall acted as judge of flowers, Mr. L. G. Kellogg was fruit judge as usual and Messrs. Krupa, Smith and Kuehne of Lake Geneva judged vegetables.

#### Garden Flowers

Asters—1st, Mrs. H. H. Shufeldt; 2nd, John Dupee.

Cosmos—1st, John Dupee; 2nd, W. Toole & Son.

Delphiniums—1st, John Dupee.

Gladioli—1st, Mallory & Bridge; 2nd, Wm. Toole & Son.

Nasturtiums—2nd, John Dupee.

Petunias (Single)—2nd, John Dupee.

Petunias (Double)—2nd, John Dupee.

Phlox (Annual)—2nd, John Dupee.

Phlox (Perennial)—1st, White Elm Nursery; 2nd, Wm. Toole & Son.

Sunflowers—2nd, John Dupee.

Sweetpeas—1st, Chas. Jackson; 2nd, John Dupee.

Stocks—2nd, John Dupee.

Verbenas—2nd, John Dupee.

Collection Annual Garden Flowers—1st, Mrs. H. H. Shufeldt.

#### Potted Plants

Begonia—1st, Mrs. H. H. Shufeldt.

Asparagus Plumosus—1st, Chas. Jackson.

Asparagus Sprengeri—1st, Mrs. H. C. Melcher.

#### Wild Flowers

Golden Rod—1st, Mrs. H. C. Melcher.

Bouquet Wild Flowers—1st, Mrs. H. C. Melcher.

Collection Wild Flowers—1st, Mrs. H. C. Melcher.

#### Fruits

##### APPLES.

Alexander—1st, H. C. Melcher.

Anisim—1st, Dr. T. E. Loope.

Astrachan (Red)—1st, Wm. Turnbull; 2nd, B. R. Bones.

Duchess—1st, D. E. Bingham; 2nd, Dr. T. E. Loope.

Lowell—1st, B. R. Bones.

Lowland Raspberry—1st, Dr. T. E. Loope.

Lubsk Queen—1st, D. E. Bingham; 2nd, A. D. Brown.

McMahan—1st, H. C. Melcher; 2nd, A. D. Brown.

Sweet Russett—1st, H. C. Melcher; 2nd, D. E. Bingham.

Switzer—1st, D. E. Bingham.

Talman (Sweet)—1st, L. H. Palmer.

Tetofski—1st, B. R. Bones; 2nd, H. C. Melcher.

Transparent (Yellow)—1st, D. E. Bingham; 2nd, H. C. Melcher.

Wealthy—1st, L. H. Palmer; 2nd, Dr. T. E. Loope.

#### CRABS.

Hyslop—1st, D. E. Bingham.

Transcendent—1st, D. E. Bingham.

Whitney—1st, A. D. Brown; 2nd, Dr. T. E. Loope.

Display Crabs—1st, H. C. Melcher.

Display Cherries—1st, A. L. Hatch.

Display Pears—1st, B. R. Bones.

Display Plums—1st, A. L. Hatch; 2nd, D. E. Bingham.

#### Bush Plants

Red Raspberries—1st, H. C. Christensen.

#### Vegetables

Snap Beans—1st, John Dupee; 2nd, Geo. Schimmelpfenning.

Bush Lima Beans—1st, John Dupee; 2nd, Mrs. H. H. Shufeldt.

Turnip Beets—1st, John Dupee; 2nd, Geo. Schimmelpfenning.

Drumhead Cabbage—1st, John Dupee; 2nd, Mrs. H. H. Shufeldt.

Cabbage and other Variety—1st, Geo. Schimmelpfenning.

Celery—1st, John Dupee.

Sweet Corn—1st, John Dupee.

Cucumbers—1st, John Dupee; 2nd, Mrs. H. H. Shufeldt.

Head Lettuce—1st, John Dupee.

Onions—1st, Geo. Schimmelpfenning; 2nd, A. A. Billings.

Parsnips—1st, John Dupee.

Tomatoes—1st, Mrs. H. H. Shufeldt; 2nd, John Dupee.

Sweepstakes for largest number 1st Premiums on Vegetables—1st, John Dupee; 2nd, Geo. Schimmelpfenning; 3rd, Mrs. H. H. Shufeldt.

## FIRST CLASS NURSERY STOCK

### IN GREAT VARIETY

Consisting of

## FRUIT, SHADE AND ORNAMENTAL TREES

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THE JEWELL NURSERY CO.  
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### ANNUAL INSPECTION TRIP OF TRIAL ORCHARD COMMITTEE

One of the duties of the committee on Trial Orchards is to inspect each of the trial orchards and stations at least once each year. The 1910 committee, R. J. Coe, L. G. Kellogg, and J. S. Palmer accompanied by Secretary Cranefield covered a part of the annual trip the week of August 19-24, traveling a trifle over 1,000 miles by rail and a goodly distance by team and auto.

That the members of this Society may know how the committee members earn their salaries, which are represented thus—\$00.00—we give somewhat in detail the itinerary.

The committee left Madison Sunday night at 10:20, arriving at Barron at 5:52 A. M. Monday; trekked back to Elroy and thence to Sparta arriving at 4:36 P. M. From Sparta to Whitehall via Winona, Minn., arriving at 6:42 P. M. Tuesday. Leaving Whitehall at 10:53 A. M. Wednesday arrived at Wausau by way of Merrillan and Marshfield Wednesday 4 P. M. After inspection of orchard here, carefully estimating fruit crop, and selling same, the committee departed for Manitowoc at 11:15 P. M. From Manitowoc to Lake Geneva took all of Thursday afternoon and Friday forenoon, the members leaving for their respective homes Friday afternoon.

These trial orchard trips are strenuous affairs, mostly day and night, all kinds of weather and accommodations, and yet in 6 years, with as many different committees, the writer has never heard a complaint nor encountered a grouchy committeeman. Good fellowship prevails and the interest in the work, the discussion in detail of the different orchards, and causes of success or failure of a certain variety or tree, occupies the time so fully that the hard grind of travel is forgotten. There yet remains four orchards which will require a long trip, viz., Poplar, Maple, Medford and Gays Mills. The committee plans to make these the first week in October. The members serve without pay for a term of three years. For these men who have large business interests of their own the sacrifice is not slight.

### FORGING LETTUCE

GEO. F. POTTER.

As the demand for winter lettuce has spread from the larger cities to the smaller villages, Wisconsin has developed extensive markets for the crop. At present, however, a large part of the supply comes from outside the state. This lettuce is sent here at a disadvantage on account of express charges and, moreover, arrives here in poor condition, in which it cannot compete with a home grown product. There is, therefore, a good opportunity for lettuce growing in this state.

The lettuce greenhouse should be cool, airy, and as light as possible. The temperature usually varies from forty-five degrees Fahrenheit at night to fifty-five or sixty during the daytime, or even higher on sunshiny days. As would naturally be expected, the growth of the crop becomes faster as the temperature is raised. Too high heat, however, produces a slim growth of poor quality. Thus the careful grower will watch the plants in the beds as well as his thermometer when he regulates the temperature. The ventilation is important as with every other greenhouse crop in order to keep the plants in a healthy growth and to insure them against attacks of disease. The influence of light is that of a stimulant to growth. During the short days of midwinter it can be noticed that the crop requires a week or more longer to mature than in either fall or spring. Therefore, for the quick and cheap production of the crop, all the light possible should be afforded.

In the greenhouse lettuce may be raised either in benches raised about three feet and containing six or eight inches of soil or directly in the ground. The second system is the cheaper and it has sometimes been claimed produces better crops than the first. If benches are used too many steam pipes underneath them should be avoided, for that will cause too great a variation in the moisture in the beds. With this care fine crops may be produced and an opportunity is also gained to force rhubarb or to grow mushrooms underneath the lettuce crop.

In the filling of the benches with soil we come to the most important part of the culture of the crop. To make the business profitable, a lettuce soil must be very rich, and also must be loose in order that the roots may penetrate it easily and that it may be easily cultivated. Such a soil may be prepared by mixing thoroughly rotted manure with ordinary garden loam in the proportion of about three parts of loam to one of manure, or more or less according to the character of the soil. If the mixture is inclined to bake and become hard, a little sand may be added, but it must be remembered that sand contains no plant food and in large quantities considerably decreases the fertility. It is like putting water into milk, and should not be overdone. Another system which yields better results but is slightly slower is the composting system. A layer of sod is thrown wrong side up, a layer of manure placed on it, and the operation is repeated until the pile is about five feet in height. It is then allowed to decompose for about a year, when it is mixed with the garden loam in the place of the pure rotted manure. This system gives a fibrous and excellent soil.

Among the varieties of lettuce grown, Grand Rapids is probably the best. It forms a large head of loose leaves, has a fine appearance and is of good quality. The quality is not so good as that of the close-headed lettuce, but it is superior to these sorts in the ease with which it can be grown and in its resistance to disease.

The seed is usually sown in flats or boxes about three inches in depth and of any convenient size. The soil should be quite sandy in this box in order to develop a good root system. The box should be filled heaping full and the surplus scraped off with a board. The soil in the box should then be pressed down uniformly, and the seed sown. If sown broadcast it should be covered to not more than its own depth with soil sifted on from a fine sieve. If sown in rows it may be planted deeper. It should then be watered with a fine sprinkler. It is a good plan also to

cover the flat with a piece of paper until the seedlings make their appearance.

The only disease which ordinarily attacks Grand Rapids lettuce is the damping off fungus, which makes its appearance soon after the seedlings are up. Here and there a plant will fall over, and a close examination will show that it is rotted at the base. According to the scientists this disease is present in the soil at all times, and attacks the plants whenever conditions become favorable; that is, when the air is too close or there is too much moisture about the plants. It has also been determined that the disease attacks flats which are sown too thickly rather than ones which are sown thinly. It may be prevented then by care in sowing, in ventilation, and in watering. If the disease gains a foothold it may be stopped by applying a solution of  $\frac{1}{2}$  oz. of potassium sulphide in one gallon of water. This chemical easily decomposes, and if the solution does not show a yellowish color, and does not have a disagreeable odor, but is grayish it is not good. It also rusts metals, and sprinkling cans or sprayers should be thoroughly cleaned after using the material in them. It also spoils white lead paint, changing the white lead to black lead sulphide.

When the plants have been in the seedbeds for three or four weeks they are ready to transplant. Some growers transplant from the seedbed into the bench at about a distance of two or three inches apart, and later transplant again to six inches apart. Others allow the plants to grow larger in the seedbed, and only move them once. If the plants are carefully handled the first system saves space and produces more than enough lettuce from a given space to pay for the extra labor. In either case especial attention should be given to transplanting at the proper time and to having the soil in the benches just moist enough at that time. Two or three days' delay may allow the plants to become slim, and if the bed is too dry or too wet on the proper day the plants cannot be moved without injury. This keeping of the soil in the proper mechanical condition is a skill which must come with

practice. While the plants are in the benches, watering and cultivation should be attended to. When watering enough water should be applied at each time to wet the soil to the bottom of the bench. It will then dry out uniformly. If a small amount of water is applied too often, the bottom of the soil will be always dry, and the top will be always wet.

There is one more detail which must receive the most careful attention during this period, and that is the control of aphids or plant lice. These little green insects may be easily controlled by fumigating with tobacco smoke while the plants are small. When the crop is nearly matured, however, the leaves press so closely together that it is almost impossible to kill the lice which are underneath. This fact together with the fact that the aphids are able to multiply with extreme rapidity under favorable conditions may spoil a very promising crop just when it is ready to market. Extreme care should be taken to exterminate the pests the moment that they appear or even before they appear to prevent them from gaining a foothold by timely smoking.

Success in lettuce growing does not lie in any great secret. It lies in having plants enough so that the beds may never be idle or filled with small runts but always be growing strong healthy plants, and in careful attention every day to simple details of the culture.

### FIRE BLIGHT OR PEAR BLIGHT

H. H. WHETZEL, N. Y. STATE COLLEGE OF AGRICULTURE.

This disease which is known by a number of names, such as "Fire Blight," "Pear Blight," "Twig Blight," "Blossom Blight," "Blight Canker," etc., is one of the most common and destructive diseases of pear trees. It also attacks apples, quinces and a few of the ornamental plants of the apple family. In some sections it also attacks plums and apricots. It is an American disease having been first reported from the highlands of the Hudson river about 1780. So far as is known it does not occur outside of North America. However, in this country it is dis-

tributed from the Atlantic to the Pacific and north into the fruit regions of Canada. It is the most dreaded of fruit tree diseases, particularly of the pear. It is distinctly epidemic in its nature, appearing suddenly in a locality where it may not again be destructive for ten or fifteen years. Nevertheless it is always to be found every season to a limited extent in any locality, ready when the proper combination of conditions arise to spread rapidly and again work havoc.

The disease is caused by bacteria as has been repeatedly shown by careful investigations and experiments. There is absolutely no question any more as to the cause of pear blight. That these bacteria alone cause the disease is a fact, not a theory, and as such is no longer debatable. These bacteria pass the winter in cankers on the body or main limbs of the trees. In the spring the bacteria spread from these cankers into the adjoining healthy bark where they are produced in such abundance that they ooze out in sticky, milky drops. Flies and wasps come to these oozing cankers and become smeared from head to toe with the sticky, milky ooze. This ooze is made up almost entirely of the blight bacteria. These insects then fly away to the opening blossoms which they visit for the nectar or honey, leaving some of the bacteria from their feet or mouth parts in the nectar of the blossom. Here the bacteria multiply rapidly, penetrating the tender tissue and kill it, causing "Blossom Blight." Bees visit these infected trees and spread the bacteria throughout the orchard which may sometimes show blossom blight on practically every spur. This blossom blight is common on both pears and apples and is usually the first evidence of the disease that the grower observes in the spring. The bacteria also ooze from these blighting blossoms from which they are carried by sucking insects such as plant lice to the tips of growing shoots, and "Twig Blight" results. Every grower has seen the growing tips of the pears and apples turn black and wither on

(Continued on page 14)



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Annual Membership.....\$0.50  
 Life Membership.....5.00  
 Remit to Secretary W. S. H. S.  
 Madison, Wis.

The dates of the Annual Conven-  
 tion are January 10, 11, 12, one week  
 earlier than last year.

Our columns are always open to  
 free expression of opinion by mem-  
 bers. Will somebody please start  
 something?

Colorado peach growers realized  
 less than \$500 per acre for Elberta  
 peaches, nearly as good as Wisconsin  
 cherries.

We need more members, there is  
 no good reason why we cannot boost  
 the membership to 2,000 by Janu-  
 ary 1. One of the simplest and easi-  
 est ways we know of to do this is for  
 500 of our members each to send in  
 fifty cents and name of a new mem-  
 ber. See the "Credit" column.

How many members would seri-  
 ously object to an annual member-  
 ship fee of one dollar? Easy now,  
 don't go up in the air, nobody said it  
 was to be a dollar a year but just  
 to provoke comment we ask again,  
 how many would object to a dollar  
 fee?

Please keep in mind that postage  
 stamps are not legal tender and we  
 cannot pay our bills with them. A  
 postal or express money order costs  
 only three cents and saves us lots of  
 trouble. More than half of our re-  
 ceipts are in coin.

Don't forget the life membership  
 button. This is a very handsome gold  
 and enamel button with the Badger  
 coat of arms and the legend, "Life  
 Member Wisconsin State Horticul-  
 tural Society." These are for life  
 members only and we find that many  
 of our members wear them regularly.

No restrictions are placed on an-  
 nual membership, we welcome all  
 and if we find we have any "unde-  
 sirable citizens" in our fold the By-  
 Laws provide for casting him out.  
 Art. 1 reads as follows:

### Article 1.—Membership.

Sec 1. The Secretary shall decide  
 upon all applicants for member-  
 ship in accordance with the Consti-  
 tution and By-Laws of the Society.

Sec. 2. Any member maliciously  
 or intentionally injuring or working  
 in opposition to the Society or its  
 purposes in promoting horticulture  
 may upon return of his membership  
 fee be summarily expelled

With life membership it is some-  
 what different. It is a privilege to  
 be a life member of this society and  
 our life membership list should be  
 carefully guarded. The Executive  
 Committee in session at Oconomowoc  
 took this view and applicants for life  
 membership must now be recom-  
 mended by a life member or an an-  
 nual member in good standing for at  
 least two years. See nomination blank  
 on last page.

Members are urged to use this  
 blank. If you know of someone that  
 you think ought to be a life member  
 fill out the blank and forward to the  
 Secretary who will do the rest.

Apples are somewhat scarce this  
 season and for that reason members  
 should make extra efforts to secure  
 and preserve good specimens for the  
 winter meeting. Our veteran exhibi-  
 tors know how to store fruit, but for  
 the benefit of those who have never  
 made the attempt we give the follow-  
 ing hints:

Select only sound fruit; wormy  
 apples will not keep. Wrap each  
 specimen in two or three layers of  
 newspaper or paraffined paper. Pack  
 in boxes and store in a cool cellar.

The spirit of co-operation, of broth-  
 erhood, all pulling together is what  
 we need most of all and is one thing  
 this paper aims to foster.

This is not to be the Editor's  
 paper but your paper. We must all  
 help a little in some way. Every  
 member rests under an obligation to  
 aid the society in some way and every  
 member can help.

## CREDIT

Beginning with this issue we will  
 publish names of all members who  
 secured new members during the pre-  
 ceding month.

For September we have the fol-  
 lowing honor roll:

- B. D. Merrell, 1.
- S. A. Minor, 2.
- J. Armbrust, 1.
- W. G. McKay, 2.
- N. A. Rasmussen, 1.
- E. W. Fenlon, 1.
- W. H. Marsh, 1.
- F. Ovenden, 1.
- A. Samuelson, 1.

**CHEERFUL WORDS FROM FRIENDS**

In the September issue we asked for opinions and brief contributions. The response has been beyond all expectation. We print below some of the kind words, and right here send our sincere thanks to all others who wrote the editor. This is the sort of thing we want and need; to make of HORTICULTURE a paper for the members and by the members. Come in, the water is fine!

WISCONSIN HORTICULTURE is fine. "It is a good thing, push it along." It will inspire the young and enthuse the aged. It will cause bushels of fruit to grow where none grew before.

Such statements as Mr. Sullivan's will stimulate commercial horticulture and accelerate the movement back to the farm. Mr. Sullivan should now run for the legislature. This would take his attention from his own business and prevent him from getting rich too fast. I have a neighbor who has a ten acre farm. Up to date he has this year sold over two thousand dollars worth of produce from this farm and has growing thereon four acres of fine looking potatoes to be marketed yet this fall. There are a number of small farms near Baraboo which bring in larger cash returns than many large farms. Success to WISCONSIN HORTICULTURE.

CHAS. L. PEARSON.

Senator Pearson knows,—about the legislature part of it at least.

I want to congratulate you on the make-up of the first number of WISCONSIN HORTICULTURE. I think the publication will be appreciated and will try to do my part in making it a success. I have been very busy the last two weeks marketing my apple crop. After what seemed to be the total destruction of all fruit blossoms in April I have sold from my little home orchard of two acres over thirty barrels of apples, most of them wind falls on account of the dry weather but they sold at \$1.50 and \$1.00 per bushel. The only varieties that stood the test were Wealthy, McMahan and Longfield with the exception of Repka which bloomed very late. There

will be no winter apples. There was no spraying done this year but I noticed much "russeting" of the fruit which is usually attributed to Bordeaux mixture. Have others noticed it? Strawberry fields have improved wonderfully the last month and everyone feels much encouraged.

H. C. MELCHER,

Oconomowoc, Wis.

I was mighty glad to get No. 1 of WISCONSIN HORTICULTURE. It is what we need and will be of immense value to the state in keeping our people and their money at home. No one who has carefully investigated can arrive at any other conclusion than that Wisconsin offers fruit growers better and safer opportunities than the distant west. Our people can grow the fruit and put it on the market for less than the western people pay in freight and be drawing interest on the proceeds while the other fellow is paying cold storage charges. Those who read your Door County article should have seen the exhibit at the 1910 State Fair. It was grand. We want a dozen to fifty commercial orchards under expert management in different parts of the state and don't forget small fruit. The nurseries and orchard supply people should fill up your advertising columns.

A. D. CAMPBELL,

Commissioner of Immigration.

I was greatly surprised to receive a copy of WISCONSIN HORTICULTURE. I hope it will receive the united support of the whole organization. I think I live in the poorest location to grow fruit in Wisconsin, being about fifty miles south of Ashland and not near enough to any of the large lakes to be protected from early frosts or extremes of cold, yet I think I can grow crab apples in abundance, a few of the hardy apples such as Wealthy and Duchess, currants, gooseberries, a few varieties of native plums and strawberries. My orchard now consists of five hundred cherries, seven hundred plums, two hundred apples, five hundred currants, fifty gooseberries and one acre of strawberries. I am testing a number of varieties of all the above and would be pleased to help any of the members in any

way I can. I am a strong believer in spraying and believe I have the cleanest trees and plants in this part of the country. I stand ready to assist your paper or its readers at all times.

Wishing you the best of success in your new venture, I remain

Yours truly,

Butternut, Wis. W. E. DILLON.

Mr. Dillon certainly has a very fine trial orchard and we will all watch it with much interest.

Success to the new magazine; it will be a great benefit to the society. It is just what is needed. There have been several five and ten acre orchards set out here in the last two years. I will set three hundred trees in the spring, Early Richmond and Montmorency. There will be about two thousand five hundred trees in the spring. Trees do splendid here on this limestone soil. The nights are always cool. Washington Island will have at least one hundred acres in cherries in the spring. The young trees here averaged from \$5 to \$8 per tree this year. I hope if any of the brothers come to the Island they will call on me.

Yours for success,

JOHN AZNOE.

Detroit Harbor, Wis.

Mr. Aznoe lives on Washington Island, a part of Door County that promises to be one of the best fruit sections in the United States

We fruit growers ought to get into closer touch with each other. I know such a paper will be of much benefit to me and I assure it my hearty support.

A. K. BASSETT.

Baraboo.

Mr. B. represents part of a very interesting combination, viz., a young man in an old orchard. He is teaching the old trees new tricks. Besides he is planting apple trees extensively. He lives on the apple hills of Sauk County.

WISCONSIN HORTICULTURE is at hand and is very good indeed. I am glad to see it. Always regretted the suspension of the old journal. No

fruit here except half crop of strawberries and some grapes. With six hundred bearing apple trees I have not over a dozen apples and yet I have had them and of the best. Trees are thrifty and "promising." Some day this section will be heard from, at least its small fruits, for we have the soil and fair climate. Hope HORTICULTURE will succeed.

B. H. SMITH.

Tiffany, Rock Co., Wis.

Mr Smith has been out west. Sometime he will tell us about the fortunes that have not been won in the apple belt of the far west.

"This certainly is a promising Bud." There can be no better way to unite our brotherhood than by a free exchange of opinions through a medium that is absolutely and fearlessly for us. Here's hoping that no member will try to hide his light under a bushel but instead keep "a pushin' and a shovin'."

J. E. MATTHEWSON.

Sheboygan, Wis.

Have just received and read my copy of WISCONSIN HORTICULTURE. I wish to commend you on your scheme as outlined in this number. I think just such a publication as you plan should be of much interest and benefit to the members. I hope to do my part to make the venture a success.

Yours truly,

REINHART PFOTENHAUER.

Green Bay, Wis.

I was much pleased to receive the first number of the WISCONSIN HORTICULTURE and wish it success. I think it will be a benefit to Wisconsin readers. Two questions if you please:

Has any member been troubled with the English sparrow eating fruit buds of the plum in the spring?

What is the matter with Windsor apple for southern Wisconsin?

GEO. R. McLAY.

Pardeeville, Wis.

Will some one answer Mr. McLay's questions? We are inclined to say "nothing" in answer to last question.

### SOME OBSERVATIONS AND CONCLUSIONS

Horticulturists are very much like corn growers in that they think it not worth while to spray and care for the fruit trees and bushes when there is but little prospects of having any fruit.

The passing season has been an unusual one in many respects. The extremely warm weather in March brought out the blossoms much too early and subsequent snow storms and hard freezes seemed to preclude the possibility of there being any fruit.

There was, however, here and there an orchard that put out some fruit. The quantity was not large and for the most part no spraying was done. Some sprayed once and that rather indifferently so the insects had things about their own way, and made good use of their opportunity.

Most of the fruit fell off and was either wholly unfit for use or at best No. 2. The fruit that remained on the trees colored beautifully and was eagerly sought by the consuming public willing to pay good prices for good fruit. Fruit trees of all kinds are making a fine, healthy growth, and with favorable conditions and care another season will yield a large harvest.

MRS. L. H. PALMER,

Baraboo, Wis. River Dale Farm.

Just about the same everywhere in the state. Growers felt discouraged and did not spray.

Vol. 1, No. 1, WISCONSIN HORTICULTURE is at hand and its pages scanned from 1 to 8 and find it all very interesting. Have an orchard of forty-eight apples planted April, 1903. Have had but little returns with prospects fine this spring but the frost and snow of April 23, 1910, did great damage. Will want to learn more about spraying.

LOUIS PIERRON.

North Milwaukee, Wis.

Ask questions, Mr. Pierron.

I will make my contribution of one article now. I have two sons at home that I am trying to educate so as to have them take enough interest in

the line of work that I have followed so that they will follow it from choice. The oldest one had a little piece of land that he raised potatoes and beans on, and sold enough to buy a nice gun, which he greatly desired. Four years ago I showed him how to top graft some worthless crab apple trees, and this year he had the satisfaction of picking some very nice Getman apples off of them.

The younger one of the boys had a sample of corn from the state and was in the corn contest; he did not get any prize but he raised some very nice corn and as he had to go to the county fair with his corn I suggested to him that he take some vegetables from the garden along and he could have whatever premiums he could win. He won \$14.00 and had the satisfaction of having the largest lot of vegetables on exhibition by any one party.

They attended the farmers' meeting at the Reformatory last month, and they were greatly interested in the instructions that were given to the farmers, and talked very intelligently about what they had heard. The older one of the two said that he could listen to Mr. Norgard every day for a week. I felt satisfied with the experiment of sending them by themselves instead of going with them.

G. S.

The first number of Vol. 1 of WISCONSIN HORTICULTURE is at hand and I wish the new venture the heartiest success. In Wisconsin, especially in this year which has been so trying on account of the climatic conditions, the man who has the words of encouragement and hope should have every chance and inducement, telling his story of the ways that have led to success, and warnings of the errors which may be avoided.

I am, as you know, only an amateur and have been seeking good ways that are practical, and productive of results and come within the range of a limited purse.

I have a garden orchard of sixteen apple trees which are about twenty-five years old; when the blizzard of last April loaded them with snow and ice I had little hope of their survival, but the continued gray, dull

weather proved a restorative and they budded most profusely only to be encountered by four days of severe frost which killed fully half of the buds. Still there were many blossom and in the right condition for spraying; I tried to procure it done but was not able to get hold of the proper outfit, and only succeeded in spraying a few limbs which I could reach with my Fountain Sprayer. The result was as follows: In June the apples began to fall off in large numbers, and in every instance it was seen that the fruit was attacked by the worm; the drought followed and more than three-quarters of the apples fell and nearly every one wormy. The branches that I had sprayed held the fruit and were almost free from blemish. I used Grasselli's Bordeaux Mixture. I think the evidence is most conclusive, the line between failure and success was perfectly apparent.

In May I sprayed a plum tree thoroughly three times at ten day intervals and as a result there was not a plum fallen or blemished and every one was ripened up plump; and this was on a tree that had given me much trouble from the Curculio and blight or rot of the fruit before ripening.

I planted about fifty tomato vines, and as the plants grew I tied them to a six foot stake, cutting off all sprouts which sprung below the first two flowers, and all the excess laterals over four; I gave a sprinkle of nitrate of soda on the first of August. Result: I have vines vigorous, with fruit large and no rotted or spotted tomatoes; the vines were pinched off when six and a half feet tall, and I can say that I have seen none to equal them anywhere in this vicinity. The varieties were Ponderosa, Chalk's Early Jewel, Golden Trophy, Matchless, Buckeye State.

I have had fine success with Musk Melons, Osage, Yellow Meated Japan and Jumbo Rocky Ford.

Grapes set quite freely but the depredations of the "boys" compelled me to pick thirty vines green only fit for jelly. If some way could be devised that could curb this thieving spirit of "Young America" HORTICULTURE would confer a benefit perhaps second

to nothing. The birds take a toll which we cheerfully acknowledge as a debt but the *boy thief* has no defense.

A. H. REYNOLDS.

Green Bay, Wis.

### REPORT FROM LOCALS

RUSHFORD.

Our Society held their last regular meeting on September 3, it being in the nature of a flower show. To get up an interest among outsiders premiums were offered for the best bouquet of Asters, garden flowers and wild flowers. The children were much interested and quite a number of bouquets of wild flowers were on display. The showing of flowers, fruits and vegetables was very good. Of course we had a dinner and a short program was given. Dr. Loope read a paper on "What Wisconsin Has Done for Horticulture." Mrs. Carpenter read a paper on "Our Home Garden." Mrs. Harry Becker gave a talk on "Canning of Fruits and Vegetables." We were much encouraged to secure several new members and a promise of more. Our next meeting will be October 1, the first Saturday in the month and will be a Harvest Festival.

EVA A. LOOPE, Sec.

### PREMIUM LIST.

Ribbons offered for: Best display of Asters, Dahlias, Gladioli, Petu-

nias, Phlox (Annual), Phlox, (Perennial), Sweetpeas, Verbenas, best bouquet garden flowers and best bouquet wild flowers.

Apples—Best plate Wealthy, McMahan, Anisim, Duchess, Snow, Yellow Transparent.

Vegetables — Best quart Snap Beans, Lima Beans, six Turnip Beets, three Cabbage, six ears Sweet Corn, six ears Field Corn, three Cucumbers, six Tomatoes.

In addition a prize of twenty-five cents will be given for the best display of Asters, one peck of apples for the best bouquet of garden flowers, one dozen post cards for the best bouquet of wild flowers and one pound of candy for the best six tomatoes. All who have flowers or fruits are requested to display, as competition is open to all whether members or not. Picnic dinner at twelve o'clock followed by a program.

Dr. T. E. LOOPE, President.

Rushford certainly sets a lively pace.

### POYSIPPI.

I have no papers at hand that have been read at our meetings but will say that four sprayers have been added to this community through the influence of this society or its members, which we think will do something towards making better apples for our boys and girls. In spite of the dry weather strawberries yielded fairly well with us and also with Mr.



Apple pickers at the Look Out Fruit Farm, Dr. T. E. Loope, proprietor, Eureka, Wis.



Smith. We think our Bederwood out-yielded anything we had and we fruited nearly thirty varieties. St. Lewis was the largest of our early varieties but it is a soft berry. Commonwealth was very large and several days later this year with us than Sample or any other late variety that we fruited on some land we had rented but did not pick the berries. Parsons Beauty yielded the best, perhaps more than any other we had on our grounds.

GEO. JORGENSEN, Sec.

Four spraying outfits in one year is a good record for any local.

ALGOMA.

I have just received your paper and found an easy chair and cool place and read it all from start to finish. It looks good to me. The Oshkosh society met last evening at Mr. Phillipson's house. Prof. Milward was with us; we had a pleasant and interesting meeting and ended with a tasty and appetizing banquet of ice cream and cake. I see one error in your paper about the Algoma society; will correct it. We have eleven paid members besides the women and young folks.

Yours for success,

J. B. NOYES, Sec.

We take pleasure in correcting error. Please be a little more liberal with your invitations next time; it is tantalizing to read about "a tasty and appetizing banquet of ice cream and cake."

OMRO.

The Omro Horticultural Society has not held any meeting since November, 1909.

MINNIE HAM, Sec.

All quiet along the Fox!

What is an apple tree worth? At five years old? At ten years? Supposing you had a thrifty young orchard of Duchess, Wealthy, etc., that had been well cared for and on land condemned for public purposes what valuation should be set on the trees? Will a large number of members please answer?

### QUESTIONS AND ANSWERS

#### Question:

I enclose herewith a few leaves from an apple tree growing on a neighboring farm, which is affected with some kind of disease. The tree is young, about fifteen feet high, stands away from any other apple trees, but almost touching two small evergreen trees, eight or ten feet high which I think are some variety of cedar. Although of bearing age this tree has never borne any fruit, being attacked with this disease each year. At least ninety-eight per cent of the leaves are badly affected. This tree was sprayed once early this spring, very thoroughly. Any information regarding this growth will be greatly appreciated.

Very truly yours,

Richland Co.

A. R.

Answer by Prof. L. R. Jones, Department of Plant Pathology, University of Wisconsin.

Your apple leaves are being killed by the rust. This is a fungous disease which has the curious habit of developing first on the red cedar and then passing from that each spring to the apple. Since the cedar stands close beside your apple tree, this is unquestionably the immediate cause of your trouble. According to our experience, spraying will do very little to check the rust under these circumstances. If, however, you will destroy the cedar trees this autumn, you will probably see no more of the apple rust.

#### Question:

Enclosed find specimens of diseased apple leaf and potato leaf. Can you tell from these what the trouble is and remedy, if any? In the case of the potatoes, the tubers are now about half formed. The soil is a sandy loam. Do not know the variety but it is a white potato and resembles the McKinley. Have used no paris green. The apple trees have been sprayed twice during the season with Bordeaux Mixture.

Yours truly,

Douglas Co.

M. S. B.

Answer by Prof. Jones.

Your potatoes are suffering from two troubles. The yellowing of the

## Wisconsin Grown Apple Trees

For planting in Wisconsin, are proving their superiority more strongly each season. You will have to order quickly if you get ours. We excel all others on Native Plum and Compass Cherry, two year budded on native plum roots five to seven feet.

Large stocks of Currants and Gooseberry plants. Minnetonka Red Raspberry. Strong transplants of the tip varieties.

We make a specialty of high class Shrubs and trees for public and private grounds. Our soil is a heavy upland clay timber growing soil and we do not compete with scrubby grown stock from poor soils.

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NURSEY MEN  
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## NURSERY PERHAPS

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**WILLIAM TOOLE & SONS**

**PANSY HEIGHTS, BARABOO, WIS.**

leaves, with dying at tips and margins, is the trouble we call "tip burn," which is primarily due to the unfavorable dry, hot weather. Flea beetles, or any other injuries to the plant, aggravate this trouble.

The black spots scattered over the leaves are the early blight, a fungous trouble, which, if not checked, will soon kill these leaves and tend to spread to other healthy leaves. It would have been well to have given these plants one application of Bordeaux Mixture about a week ago. This would have reduced the flea beetle injury and prevented the beginnings of the early blight. If the tops are still fairly green, it will still be worth while to give them one thorough spraying with Bordeaux Mixture. This will check in a measure the development of these diseases and prolong the life of the plant, and every day which is added to the life of the potato leaves in September will be of much benefit to the crop such a year as this.

#### Question:

I have about a dozen maple trees which should be moved, being planted too close and not in proper places. They are about five to seven years old. Is it safe to move them? If so at what time of the year? And what is the proper way of replanting them?

Would you also give me some information regarding keeping of Geranium plants through winter. I have a delightful bed of Geraniums, strong and vigorous plants. They have been blooming all summer and I would like to keep them over winter and replant in the spring.

Can you give me some ideas as to the cost, etc., in starting a greenhouse on a small scale. The best method, etc.?

L. N. C.

No. 1.—The maple trees can be moved; any tree may be transplanted no matter how large, it is merely a question of expense, but with your five-year-old trees there should be no difficulty. We advise you to dig holes this fall where you want them and fill the holes with straw or manure. In early spring just as soon as you can dig in the ground, transplant your trees. Take up plenty

or roots and pack the earth firmly about them in their new location. Do not transplant this fall.

No. 2.—There are two methods of keeping Geranium plants through winter. One is to store the plants in a rather dry cellar, usually hung up in bundles by the roots. If the air is not too dry the plants will carry through until spring, but it will take half the summer for them to recover.

Another plan is to cut back the tops very severely, say three-quarters of the tops to be cut off and plant in flower pots. The plants in this case must be kept growing in a window. It will require several weeks for them to recover but you will be able to save your original plants and they should be in good shape to start blooming next spring.

As a rule it is not worth the trouble required to carry over Geranium plants. Most people who are familiar with the plants start (slips) or cuttings from the plants indoors. These may be started in sand or soil in tiny flower pots and should make good plants by spring.

No. 3.—A greenhouse may cost anywhere from \$50 to \$50,000. For the former sum you could have a little conservatory built alongside your house and heated from the house. If you have any kind of a greenhouse with an independent heating system it will cost you from \$500 up, depending on the size of your house. The "Forcing Book" by L. H. Bailey, published by the MacMillan Co., New York City, gives full and exact instructions for constructing greenhouses both big and small.

*Question.*—Can I move apple and cherry trees that have been planted five years from a clay to a wet sandy soil, also when is the best time to move currants, conditions as above? I do not mean that the water stands on the surface of the lower soil but it does not settle more than 3 or 4 feet from the surface in a dry time. The trees and bushes are three-fourths of a mile from new house, hence reason for removal.—A. S. B. Mich.

*Answer.*—It will be possible to move these trees but not advisable.

The apples on well drained clay soil will surely thrive if cultivated, sprayed, etc., while failure is almost sure to result if transferred to the other location. The same is true of the cherries. We cannot conceive of a more unfavorable situation for tree fruits than the proposed site.

We know personally every one of our advertisers and feel satisfied that subscribers will get a square deal from every one of them.

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Vincennes, Indiana

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PROPRIETOR

Cherry Trees by the  
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The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited

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Get our Price List before Placing your  
order. Satisfaction Guaranteed

— ESTABLISHED IN 1854 —

ADDRESS

**Kellogg's Nursery**  
Box 77, Janesville, Wisconsin

**FIRE BLIGHT OR PEAR BLIGHT***(Continued from page 7)*

the trees. Sometimes sucking insects or the curculio carry the bacteria to young fruits, introducing them into the wound which the insect makes, thus giving rise to "Fruit Blight," which is not at all uncommon both in apples and pears. The bacteria work their way down the blighted blossom spur or blighted shoot and spread out into the bark, forming the cankers. These cankers are always marked by a well defined line or crack between the diseased and healthy bark. With the formation of these cankers the seasonal cycle of the disease is complete. The bacteria thus go into winter quarters in these hold-over cankers, becoming active again the next season, providing a source of infection for the spreading of the disease.

This disease is sometimes very abundant and destructive in nursery stock. The source of infection in these cases has been repeatedly located in hold-over cankers on old neglected pear and apple trees or wild thorn trees near the nursery. The removal of these trees or of the cankers in them has almost always given immediate relief from the severity of the blight in the nursery stock. The disease is frequently introduced into the nursery stock by bees which visit the stray blossoms on quince or apple trees in the nursery row. From these centers of infection it is spread by plant lice and leaf hoppers to adjoining trees and from these to others, thus spreading the epidemic. Mr. V. B. Stuart, holder of the C. W. Stuart & Co. fellowship, demonstrated during the summer of 1909 that this disease can be profitably controlled in nursery stock. By a systematic cutting out and disinfecting he was able to save a total of 2,317 apple, pear and quince trees which became infected during the season but which were saved by prompt removal of the blighted tips of the shoots. From 130 acres devoted to apple, pear and quince stock he lost only 346 trees during the season, 256 of which were lost from a quince block which was badly infested and many of the trees were beyond saving when he

began his work in the spring. By means of an automatic counter he kept a careful record of the number of trees pruned and the number of trees removed.

The secret of success in controlling fire blight is the frequent and systematic removal of all blighted blossom spurs and shoots before the disease can get into the trunk or large limbs of the trees. This means the inspection of the orchard or nursery from one to three times a week, carefully removing the blighted parts and disinfecting the wound wherever a cut is made, with corrosive sublimate, one part in a thousand parts of water. Disinfect the wound, not the tools. Failure to inspect and remove the blight regularly and frequently means a certain loss in large limbs and often of trees, for the blight may extend into a tree quite rapidly, killing long limbs in a few days if not removed. In ordinary seasons one man should be able to handle ten acres of Bartlett pears ten years old by going over the trees once or twice a week. In controlling the disease in nursery stock it will be found exceedingly helpful in preventing the spread of the disease to eradicate the apple aphid as far as possible. This was very successfully done in the Stuart nursery this season by dipping the lice infested shoots into whale oil soap dip, seven pounds to fifty gallons of water. Mr. J. V. Curtis, of Hilton, N. Y., has successfully used the above method in controlling the fire blight in his pear orchard of a thousand trees during the seasons of 1908 and 1909.

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"In reply to your letter soliciting advertisements for WISCONSIN HORTICULTURE am pleased to be able to inform you that you have quite a number of 'live wires' on your subscription list as our ad. has paid us well. We therefore enclose a six inch ad. for October number."

W. J. MOYLE

For Wisconsin Nurseries.

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Mention this paper when writing advertisers. This helps us and also the one who advertises.

**THE TULIP**

W. J. MOYLE.

Of all the spring blooming bulbs the tulip in our estimation is supreme. It has been our custom for years to set out a bed or two of these pretty spring beauties, which do so much to brighten up the landscape in April and May. More people should plant these bulbs. I mean the common people. A dollar or two spent at this time in bulbs properly planted will mean a gleam of sunshine and happiness to every passerby who gazes on this beauty spot next spring.

Hyacinths, Narcissus and Crocus are all pretty in their place but as they are much more expensive we always content ourselves with a good big bed of tulips, putting all our surplus cash into these bulbs. Crocus are inexpensive and sometimes when you are crowded for room they can be planted with excellent results. I remember once calling on a city cousin where in the back yard in a space of 2 by 2 feet I had the pleasure of feasting my eyes on the prettiest little bed of these flowers you could imagine. It was a cold, raw day in April, the sun was shining but the air was so cold you could hardly feel its warmth. My business took me to the back yard. I wasn't looking for beauty spots, but on the other hand expected to view what is generally found in the back yard, viz., ash pile, old bones, bottles, chicken coops, potato peelings, rubbish and rags. When, lo and behold, right beside the doorstep, in a warm, sheltered nook fenced around with a piece of chicken wire to keep off the *industrious hen*, smilingly looking up was this bed of yellow beauties. This bed probably cost the owner forty or fifty cents for the bulbs, and she admitted she felt repaid for all her trouble and expense when she saw the surprise rapture and ecstasy of your humble servant, and he was only one of many who passed in and out the door, as the butcher, the grocer, the baker, and the candlestick maker all were given a blossom to wear in their button-hole.

Try a few dozen mixed crocus this



fall and get a little of this sunshine—"your share."

But to return to our subject—tulips. Here is one method. We give it for what it is worth; it has proved very satisfactory with us.

In the first place we order our bulbs from some reliable seed house, buying mixed unnamed colors, half early and the other half late blooming sorts. We prefer all single sorts.

Get your bulbs in September if you can, but they can be planted up to the first of November with excellent results provided you cover the bed well with coarse manure or marsh hay so as to keep out the frost, so the bulbs can become well rooted before the ground becomes frozen. Put it on four or five inches deep. The only thing to be feared with this deep covering is the mice, for sometimes they get in under the covering and dig up the bulbs and eat them.

Get the bed well spaded up and a lot of *well rotted* manure worked into the soil; have it rounding up to the center so it is at least five or six inches higher at the center than the surrounding surface. Set four or five early bulbs in the center, then set a row of late bulbs four inches apart in a circular ring around the early ones. Then six inches from this plant a ring of early ones four inches apart in the ring. Then another circle of late ones and so on until your bed is full. By this method you will extend the blooming season of your bed twice as long, for when the early varieties are going the later sorts will begin to bloom.

We have found that in ordinary soil two to three inches below the soil is deep enough to plant them. And in all cases the beds should be covered with leaves or other rubbish over winter to check too advanced a growth in the early spring.

A perfectly simple way to double the membership; each member secure one new member. No patent on this. : : : : : : : :

## PLANT BULBS NOW —FOR— SPRING BLOOMING

This way please for High Grade Bulbs at Low Grade Prices.

J. E. Matthewson  
SHEBOYGAN, WIS.

### SOME STURGEON BAY CHERRIES

(Entire crop sold to Calender & Vanderhoof Minneapolis, at \$1.52½ per case.)

A. W. Lawrence, 5 acres, 13 yrs. old, 2743 cases.....	\$4183 07
Average per acre.....	836 61
Individual trees (12 cases)...	18 30
A. L. Hatch, 7 acres, 13 yrs. old, 2350 cases.....	3583 75
Average per acre.....	511 96
Individual trees (11 cases)...	16 77
W. I. Lawrence, 3½ acres, 13 yrs. old, 1306 cases...	1991 65
Average per acre.....	569 04
Individual trees (10 cases)...	15 25
D. E. Bingham, 1577 cases from 525 trees, 8 yrs. 300 trees, 5 yrs. 50 trees, 12 yrs...	2404 92
Individual 8 yr. trees (4 cases) .....	6 10

Send names of people who ought to be members and we will send each a copy of WISCONSIN HORTICULTURE.

Boost the  
Membership.  
We Need  
the Money.

### Beauty Spots in Spring.

Now is the time to purchase and plant groups of the different bulbs, such as Tulips, Hyacinths, Narcissus, Squills, Crocus, etc. The adornment of our homes can be accomplished at little cost and should be looked upon as a necessity rather than a luxury. To help transform our earth to Eden just start a little flower planting this fall and you can rest assured that others will emulate the following year. Its a low priced hobby, but an interesting one to the individual and also the community.

J. E. MATTHEWSON & SON, 625 North Eighth St.  
SHEBOYGAN, WISCONSIN

## DOUBLE LILACS REMARKABLE BARGAINS FOR OCTOBER

Last month we made you a wonderful offer on PEONIES with the result that SCORES of readers of Horticulture took us up and are now setting out in their gardens our charming peony collection worth \$5.00 to any lover of this noble flower

### If you haven't ordered this collection do so to-day

This month we call your attention to our DOLLAR COLLECTION of new and rare Lilacs. For years we have been growing a lot of the best double and single Lilacs, ON THEIR OWN ROOTS and we have found them perfectly hardy and exquisitely beautiful. We want every lover of the good old Lilac to try one of these collections. For ONE DOLLAR we will ship by freight or express the following five named sorts two to three feet, all blooming size:

MADAM LEMOINE—The most beautiful double white variety.

LAMARK—Very large blooms, double, charming rosy lilac.

LOUISE VAN HOUTTEI—Very double compact blooms silvery lilac, most beautiful.

CHARLES Xth—Single, enormous blooms, purplish red, fine for cutting.

SOUV. De LUDWIG SPAETH—Single, a most remarkable lilac, dark purple, elegant blooms, 10 to 12 inches long.

Wisconsin, Nurseries, Union Grove, Wisconsin

Do not fail to read the timely article by Brother Moyle on "The Tulip."

A cloth bound copy of the 1910 Annual Report, 250 pages, twelve numbers of WISCONSIN HORTICULTURE and the privilege of being a member of the best Horticultural Society in the United States ought to be worth 50 cents. Tell your neighbor about it.



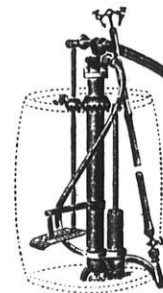
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PRICE 75 CENTS

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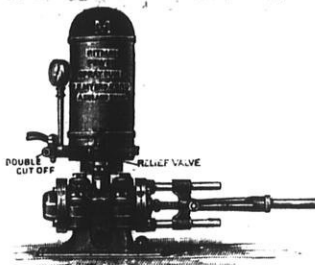


A Good Spray Pump earns big profits and lasts for years. **THE ECLIPSE** is a good pump. As practical fruit growers we were using common sprayers in our own orchards—found their defects and invented the Eclipse. Its success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying **FREE**.

**MORRILL & MORLEY**  
Benton Harbor, Michigan

## MYERS' SPRAY PUMPS

FIG. 1363



For spraying Large and Small ORCHARDS, PAINTING, WHITEWASHING, Etc.

Made in many styles for all requirements.

The Modern Spray Pumps that pump Easy and throw a full flow.

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**F. E. MYERS & BRO.**

ASHLAND,  
OHIO

FIG. 653



ASHLAND PUMP and  
HAY TOOL WORKS

FIG. 840



Watch for November  
Number of Wisconsin  
Horticulture.

## NOMINATION BLANK

Applications for life membership must be accompanied by nomination blank, signed by a life member or annual member in good standing for two or more years.

I nominate \_\_\_\_\_

for Life Membership in The Wisconsin State Horticultural Society.

Name \_\_\_\_\_

P. O. \_\_\_\_\_

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

November, 1910

No. 3

## INDOOR CULTURE OF HYACINTHS AND NARCISSUS

PROF. J. G. MCORE.

Probably no flowering plants are more appreciated during the late winter or early spring months than the so-called Dutch bulbs. Of these bulbs the hyacinths and narcissus are two of the best for indoor culture. While it is a comparatively easy matter to grow these plants success-

a much less cost than the named varieties. With hyacinths, however, it is preferable to buy in separate colors as where the bulbs are mixed as to color, unsatisfactory results are likely to occur on account of inharmonious color combinations.

In selecting bulbs, care should be exercised to see that they have not become dried out. A bulb which is soft when pressed between the thumb

plants should be a sandy loam which is comparatively rich. If it is impossible to secure such soil, it can readily be prepared by taking the ordinary garden soil and mixing with it a sufficient amount of sand and leaf mould to make it comparatively light.

The size of the receptacle in which the bulbs are to be grown will depend very largely upon the number



Hyacinth Field at Lisse, Holland

fully, nevertheless a great many meet with failure or only partial success. In this article we shall try to give simple directions as to the best methods for securing good results.

The first factor which must be taken into consideration in the forcing of any bulb is the character of the stock with which we are to start. Inferior bulbs always produce inferior flowers. It is necessary, therefore, if good results are to be obtained, to secure first-class bulbs. This does not necessarily mean that the bulbs must be high priced for the mixed bulbs may be just as good flower producers, and be secured at

and finger will not give satisfactory results. Another thing to note is the weight of the bulbs in comparison to their size. The heavier the bulb the more likely it will be to produce large numbers of good flowers.

There are two distinct methods of forcing bulbs in the home, i. e., soil culture and water culture.

*Soil Culture.* Soil culture of these plants is usually much more satisfactory than water culture, particularly for the later blooming sorts. The only objection is the increase in amount of work which is necessary. The soil for the growing of good bulbous

which it is desired to have together. Mass effects of three to five bulbs in a single receptacle are usually much more effective and require proportionately less work than where only a single bulb is used. Five to six inch flower pots are sufficiently large to carry the bulbs of the hyacinths and most of the narcissus group. If pots are not available, then pans may be used, but these usually give less satisfactory results on account of poor drainage facilities. In making up a six-inch pot of bulbs, the following is indicative of the procedure: Have the soil well mixed and suffi-

(Continued on Page 4)

### FRUIT GROWING IN ALASKA

Fruit raising at the Government Experiment Station at Sitka, Alaska does not appear to be very successful. The following extracts are from the Annual Report of Director C. C. Georgeson for 1909:

"The results of the experiments with fruit trees to date are not very encouraging. It begins to appear very doubtful if apples of the existing varieties can be grown in Alaska and brought to maturity. It would seem that if apples are ever to succeed in Alaska they will have to be developed from hybrids with the native Alaska crab apple (*Pyrus rivularis*).

"If there is doubt about the success of tree fruits, there is none whatever about bush fruits. Currants and gooseberries do as well here as anywhere on earth; in fact, the currant is indigenous to Alaska and is found both in the coast region and in the interior."

"Gooseberries do extremely well in this climate. A few varieties are being grown some of which are imported English sorts."

"Raspberries also do very well in the coast region, but the cultivated varieties are too tender to stand the winters of the interior. The raspberry is indigenous to Alaska as far north as the Arctic Circle, and probably beyond. They are abundant in places in the hills around Rampart and Fairbanks. In those situations the plant is very small, rarely more than two feet high and often much less. They prefer open groves of timber. After a forest fire the raspberry frequently comes in and occupies the ground more or less densely until again crowded out by new forestation. They are not much of a success under culture. Like the wild strawberry, they respond to good treatment in the development of shoots and leaves, but produce but little fruit. To cause them to fruit, they must not be fertilized, and they must be grown under conditions where they have more or less of a struggle for existence."

"The salmon berry is a species of *Rubus* indigenous to the Alaska coast. It is not a raspberry, but closely related to it. It has a large

edible berry, which, however, lacks the peculiar raspberry flavor; it is very soft and would not bear shipment. Cultivated varieties have been hybridized with this species and have produced a large number of plants, some of which are three to four feet high, but for some reason they do not fruit. They will bloom sparingly, but have so far not produced any fruit. Efforts in this line will, however, be continued."

"Blackberries and dewberries can not be successfully grown in any part of Alaska. They have been tried repeatedly at the Sitka Experiment Station and the attempt has always resulted in failure. The summer is not warm enough to develop the fruit and the plants usually winterkill even in mild winters, probably due to the late, succulent growth resulting from the abundance of moisture. The station has under culture a number of bushes of the service berry (*Amelanchier canadensis*). They stand the climate well; the bushes bloom profusely, but they set very little fruit, and the fruit which they do produce is small and almost worthless. Attempts have been made for several years to grow the buffalo berry of the northwestern prairies, but without result; no fruit has been produced."

### NURSERY SHARKS

In addition to the regular advertisements in our columns, all of which are paid for at a good, stiff rate, we propose to devote considerable space from time to time to the free advertising of "foreign" nursery firms which are now at work in the state. We give herewith the first installment with a promise of more later.

The state is overrun with agents of certain Ohio and Illinois nurseries who are selling fruit trees of doubtful varieties at exorbitant prices. Among the worst of these offenders are the agents of the so-called Home Nursery Co., of Bloomington, Ill. Please note that the name and address as given above was taken from one of their contracts and then read the following letter from the Secretary of State of Illinois:

"Frederic Cranefield,

"Sec. State. Hort. Soc.,

"Madison, Wis.,

"Dear Sir:—

"Replying to your favor of the 14th instant, permit me to state, the records of this Department do not disclose the incorporation of a company under the laws of this state, by the name of *Home Nursery Co.*, located at Bloomington, Illinois. There is an incorporated company under the laws of this state by the name of *The Home Nursery Company and Fruit Growers Exchange*, the location of the principal office being Normal, Illinois, which is in McLean County, Illinois, the same county in which Bloomington is located. The latter corporation was organized under the laws of this state May 1, 1890, the incorporators being W. H. Schureman, G. A. Griggs, H. M. McKnight, J. S. Guthrie and J. E. Baker. Very truly yours,

"JAMES A. ROSE,

"Secretary of State.

"Springfield, Ill., Oct. 15th, 1910."

Agents of the Home Nursery Company have sold large quantities of cherry trees in eastern Wisconsin this season at fifty-five dollars per hundred and "one-half of the 1915 crop." The price charged, however, is not by any means the worst part of the deal and does not of itself constitute a swindle, although first class Early Richmond and Montmorency trees may be bought in hundred lots for thirty-five dollars per hundred or even less. In 1909 agents of the same company operating around Marshfield charged sixty-nine and one-half dollars per hundred for cherry trees. The injury to the fruit business lies in the kinds sold, viz.: Ostheim and Northwest. The Ostheim has been thoroughly tested in this state and abandoned in favor of either Early Richmond or Montmorency.

Mr. A. L. Hatch of Sturgeon Bay, one of the best informed fruit men in the United States, says of the Ostheim: "The Ostheim cherry is a Russian variety and the tree is dwarfish. There is an orchard in sight of my place that is inferior in growth and results to the Early Richmond and Montmorency. The two



latter have proven best of all here and there is very little likelihood of any others succeeding them in the esteem of growers here. I know nothing of the Northwest cherry, if there is any such a thing."

The only mention we can find of the Northwest anywhere is a brief technical description in Budd & Hansen's Horticultural Manual, giving its origin as Illinois.

It would take too much space to

give in detail the old, old, moss-grown, fake arguments used by agents, such as analysis of soil, options on land, establishment of canning companies, superior qualities of the Ostheim cherry, etc. We feel impelled, however, to print one of the contracts of the Home Nursery Co., which has come our way both as a curiosity and as an example of the worst rot in horticultural lines we have seen lately. Here it is:

No.....  
I, .....  
Post Office.....  
County of.....State of Wisconsin  
This day bought of.....  
Representative.

### THE HOME NURSERY COMPANY. BLOOMINGTON, ILL.

The following bill of trees for the purpose of improving my property:

.....Apple Bud.....	.....Raspberry.....
.....Plum.....	.....Blackberry.....
.....100.....Cherry.....	.....Strawberry.....
.....Pear.....	.....Rose.....

### AGREEMENT.

We desire to show to our patrons the profits in growing a five acre Cherry orchard; by the latest, and most approved method of Pollenizing. In order to grow perfect formation of fruit, we find by experience, the only safe way is to grow fruit by Pollenizing. Therefore the grower has perfect fruit to place on the market at the highest prices and no trouble is found to sell all he can grow. (This method is endorsed by Preserving and Canning Companies).

The trimming of young trees is a most important element in their care and future development, and in order to insure perfect trees to our patrons at bearing age, are to be trimmed and cared for by The Home Nursery Company, at such time and in such manner as said Company may deem best; and if said trees are not as represented, and should any of said trees die from any fault of said Company within five years after planting of said orchard, said trees will be replaced free of charge by the Home Nursery Company.

At the expiration of said term of years the purchaser will have an orchard of bearing trees. The purchaser is to set the trees in accordance with the book of instructions given him for that purpose by our representative. It is further agreed that The Home Nursery Company is to buy and pick all fruit of the varieties mentioned on back of this agreement at market prices. I, being the purchaser of this commercial orchard agree to haul this fruit to the Preserving and Canning Company or the nearest railroad station. Upon these conditions we guarantee perfect success. The Home Nursery Company.

Terms \$. . . 55. . . Cash on delivery and one-half of 1915 crop of cherries.  
Trees to be delivered at.....  
in the Fall of 1910 for which I promise to pay you or your Order

.....Fifty-five..... Dollars .....Cents  
in cash on day of delivery. No countermanding. Notice to be sent of day of delivery.

Signed .....  
Signed .....  
Dated .....  
Location .....  
Remarks .....

Note.—On the back of the contract appears a list as follows: 50 Ostheim, 50 Northwest.

Will someone please tell us what is meant by the "most approved method of pollenizing" and what place it has in a nursery contract? Now we do not propose to characterize this as a swindle, cheat or fraud, we merely give the facts. Our readers are capable of forming their own conclusions.

We are not attempting to set the price at which cherry trees shall be sold in this state, nor are we particularly concerned if some one pays two and one-half to five times as much for trees as they are worth, but we are concerned in promoting the fruit growing industry in Wisconsin on a sound and substantial basis and we are well convinced that the placing of contracts, such as these, is a decided detriment and will result in time in a set-back to successful cherry raising.

In conclusion, we give herewith a few facts regarding cherry culture in Wisconsin, prices of stock, etc.

(1) Sections adapted to cherry culture;

(a) The Door County peninsula and Washington Island.

(b) The eastern counties bordering on Lake Michigan.

(c) Southern and southwestern Wisconsin, an indefinite designation, but meant to include at least the three southern tiers of counties.

(d) A section indefinite in area along the shores of Ashland Bay and Lake Superior, including the Washburn, Bayfield, and Port Wing regions. The raising of cherries on a commercial basis has not been thoroughly tested here, but preliminary tests show much promise.

In the remaining parts of the state, the north central and northwestern parts, cherry raising has not so far been successful and there is not at present any good reason for believing that cherry orchards will be profitable there. Residents of these parts of the state should wait until further tests are made before planting extensively. At the following places cherries have failed repeatedly: Wausau, Barron, Marshfield.

(2) Montmorency and Early Richmond are the best kinds to plant. These have been thoroughly tested for years and found reliable.

(3) Trees of the kinds mentioned may be purchased this year for thirty to thirty-five cents each, or less in large quantities. One hundred trees might cost thirty-five dollars while lots of five hundred or one thousand may be had at thirty cents each or less. These prices are for two-year-old trees, the best size to plant, f. o. b. shipping point, freight, and usually packing to be paid by buyers. There will be no guarantee to replace, no nonsense about "pollenizing" or horticultural experts to trim trees, just a straightforward business deal. Any reliable Wisconsin nurseryman, or others who advertise in *WISCONSIN HORTICULTURE*, will sell at these prices. We have their word for it.

(4) Two or three-year-old cherry trees are most desirable for planting and the large growers of trees dispose of all stock possible at this age and younger. Such trees as they cannot sell at that size are held over and sold to amateurs and shyster tree agents to dispose of to the credulous. Note the following from Mr. Hatch:

"Trees four years old are too big to be profitably planted unless they are cull stock or second size. There is a false notion that large trees at planting will bear sooner. Always remember that the planter must grow and develop bearing wood on his trees before he can get fruit. The wood he plants does not grow fruit at any time. The bearing habit is grown into the trees after they are planted, and not before."

We will not go farther into this phase of the subject at present, except to say that the State Horticultural Society and the Horticultural Department of the Agricultural College are both ready, willing and even anxious at all times to give, free of charge, such information as they have or can obtain regarding fruit raising in Wisconsin.

We propose, next month, to pay our respects to another firm which is offering fortunes to Wisconsin planters, probably the Farmers Nursery Co., said to be located at Miami

County, Ohio, although we have several on our list of "undesirable citizens."

Don't be frightened, brother horticulturists, we are not, as facts and the plain truth never yet hurt an honest man or firm and we shall print only that.

#### INDOOR CULTURE OF HYACINTHS AND NARCISSUS.

(Continued from Page 1)

sufficiently damp so that when the index finger is inserted into the pile, the opening will remain fairly distinct. In the bottom of the pot place pieces of broken pots, charcoal or coarse gravel to provide drainage. In putting in the drainage do not close the opening in the bottom. Have the pieces of pots arched over the opening rather than filling it. With the six inch pots, four or five pieces of drainage, or an inch of charcoal or gravel will be sufficient. Fill the pot about level full of soil without packing. Next take the bulb and with the fingers make an opening into the soil sufficiently large to receive the bulb. Three or four bulbs may be placed in a pot except for large-sized Chinese Sacred Lily. The narcissus should be planted so that just the tip of the neck of the bulb extends above the surface. The hyacinths may be planted in the same way, but are usually planted only to about one-half to three-quarters of their depth in the soil. Settle the soil by jarring the pot. This can be done without exerting other pressure and if there is an insufficient amount of soil after settling, a sufficient amount to fill within one-half to three-quarters of the top of the pot may be added. Do not put in too much soil because over-filled pots are very difficult to water. Do not press the bulbs into the soil. If this is done when the root system begins to develop, the bulbs are very likely to be pushed out of the soil which will necessitate re-planting and also check the growth.

The most important period in the production of good flowers from bulbs is that following the planting. This period is one of root development and unless the bulbs make good roots the flowers will be inferior. As soon as the bulbs are planted they should be thoroughly watered and

set away in a cool, dark place; a temperature ranging from forty to forty-five degrees being the most desirable. They should be carried at this temperature until a good root system has developed. This can easily be determined by placing the hand over the top of the pot, inverting it, tapping lightly on a board or corner of the table and removing the earth ball. If the exterior of the earth ball is covered with roots, then the plant has developed sufficiently to be brought in for flower production.

If the proper temperature has been maintained there will be little or no trouble from top growth. If the tops do begin to grow it is not necessary to bring them into the light at once. Tops having considerable extent, which will be white when grown in the dark, will turn their proper color in two or three days after bringing into the light. During the period in which the roots are developing, little water is necessary. Just enough should be given to keep the soil well moistened. It will probably not be necessary to water them more than once a week, and frequently not so often. As soon as the roots have developed the plants may be brought in for forcing. It is well if a number of plants are being grown to bring them in at intervals as this will provide a succession of flowers.

The bulbs should not be brought from the low storage temperatures into the high temperature of a living room in one change. It is better to bring them into high temperatures gradually. Very frequently the buds are blasted by giving too high a temperature. A bulb does not need high temperature, sixty to sixty-five degrees being sufficient, and the flowers will last much longer than if higher temperatures are given. The higher temperatures, seventy to seventy-five degrees, give quicker results, but with danger of blasting the buds. The bulb needs little care after being brought into the light save in the matter of water. Water copiously at long intervals giving water only when the soil indicates that there is a lack of moisture.

Hyacinths may be forced for more than one year, but the narcissus are usually so weakened that it is ad-

visible to throw away the bulbs or to plant them out of doors and buy new ones for forcing the following season. If the bulbs are to be carried over, the leaves should be allowed to remain on the plants after the flowers are off. Remove the flower stalks as soon as the flowers are wilted, then set in the light in a temperature of about sixty to sixty-five degrees, and allow the plant to continue its growth until matured. After the leaves have wilted of their own accord, they may be removed, the bulb taken out and stored during the summer.

**Water Culture.** Water culture does not materially differ from soil culture save in the medium in which the plants are grown. There are various methods of water culture, the most common being that in which the bowl or hyacinth glass is used. The bowl is preferable for forcing narcissus as it is possible to grow a larger number, thereby getting a better effect. However, with the hyacinth a single bulb in a hyacinth glass is very satisfactory. In the bowl culture take a shallow bowl preferably about three to four inches deep. In the bottom of this put one-half inch of granulated charcoal. The purpose of the charcoal is to keep the water "sweet." On this may be placed a shallow layer of one inch of gravel or sand, gravel being preferable. The bulbs are then placed on this material and the dish filled with pebbles or coarse gravel. The object of this is to keep the plants upright. Put in sufficient water so that it just touches the bottoms of the bulbs. The dish may then be set away and carried the same as for soil culture. The time required for developing, however, will not be so great. Three-fourths of the failures in water culture of narcissus and hyacinths is in trying to carry the plants at too high a temperature. Do not bring in the bulbs and place them in the warmest and brightest portions of the room. There should be plenty of light, but the temperature should be kept low, otherwise there will be a very excessive vegetative growth and few blossoms, very frequently the buds blasting and no blossoms being secured.

**Kinds for Forcing.** One of the chief bulbs for forcing is the so-called Chinese Sacred Lily. This is an early flowering narcissus. It has the largest bulb of the narcissus group, and each bulb produces a number of flower stalks. It is well adapted for either pot or water culture. Probably the best white narcissus is the Paper White. These two kinds usually give a sufficient number of early flowers. They can then be followed by the Pseudo-narcissus which are more often known as daffodils. Two varieties of daffodils which stand out among the finest for forcing is the Von Sion which is a large, double yellow trumpet, and the Emperor which is a large single trumpet. Of the cup daffodils the *Incomparabilis floriplena* is one of the best. All of these are adapted to both pot and water culture.

**Hyacinths.** Some of the best named varieties for both water and soil culture are: white, Mount Blanc and L. Grandesse; pink, Lord Macauley, Von Schiller and Robert Steiger; blue, Charles Dickens, Grand Lilas and Mimosa.

#### FALL PLANTING

C. J. TELFER, FT. ATKINSON.

The question has been asked several times whether it is advisable and profitable to do fall planting. Shrubs and some of the small bush fruits such as currants and gooseberries do very well when planted in the fall, but they should be planted as soon as it is possible to move them, which is usually soon after a good killing frost. This gives them time enough to send out little rootlets which gather enough moisture to supply the evaporation from the tops. Great care should be taken to firm the dirt well around the roots and then mulch with well rotted stable manure, using enough to cover the ground to a depth of two or three inches.

The one great trouble in planting shade or fruit trees in the fall is that they do not send out enough rootlets to gather the amount of moisture necessary to balance the evaporation and consequently the drain is so heavy on the tree that it does not often start in the spring and

if it does may die soon after starting.

Peonies and a great many other perennials may be planted in the fall but should be well protected through the winter.

Strawberries can be planted with success but the question arises as to whether it pays, as the nurserymen charge twice as much for plants sent in the fall. Strawberry beds must be planted one year before bearing and beds planted in the spring and given good care will make a good solid bed of plants before the next fall, therefore nothing is gained by planting the year before.

The above was intended for the October number but was lost in the shuffle. Ed.

#### CREDIT LIST FOR OCTOBER

The following helped boost during October. We hope to hear from the remaining 1,397 in November.

H. F. Marsh, 1;  
R. S. Wright, 1;  
Stanton E. Minor, 2;  
J. M. Schauer, 32;  
Dr. Chas. L. Babcock, 2;  
John M. Kegel, 2;  
Dr. C. W. Oviatt, 1;  
Geo. Jorgensen, 1  
Louis Nebel, 2;  
M. S. Kellogg, 1;  
N. A. Rasmussen, 1;  
B. D. Merrell, 1;  
H. Reichard, 1;  
F. Beck, 1.

#### ASPHALTUM FOR CUTS MADE IN PRUNING

Prof. A. D. Selby, botanist at Ohio Experiment Station, in Bulletin No. 214, Diseases of Cultivated Plants, recommends asphaltum as a dressing for wounds made in pruning. Gas tar is also recommended and either is said to be better than ordinary lead paint.

#### LIME SULPHUR FOR PLANT LICE

A writer in the Rural New Yorker reports success in destroying black aphid on cherry trees with commercial lime-sulphur (1 to 50) controlling mildew at same operation. His orchard consists of 550 trees. Whale oil, soap and tobacco extracts had been tried without success.

Looks as if lime-sulphur is a "bug-icide" as well as a fungicide.



## QUESTIONS AND ANSWERS

*Question.*—Would you advise spraying raspberry canes with Bordeaux this fall that are affected with Anthracnose or is other treatment necessary? E. M. G.

*Answer* by Dr. L. R. Jones:

I would not advise spraying this autumn, since the disease is now practically in a dormant condition. Spraying should, however, begin in the early spring with a first application before the leaves are open, the second on the young leaves when they are 6 inches high, with a third spraying one week later. Precaution should be taken to keep the spray from the leaves on the bearing canes since it may injure these.

*Question.*—When is the best time to order and ship in cherry and apple trees, in the fall or spring? Also state if shipped in the fall how should they be treated over winter. I got the Society paper today and am pleased with it. Every issue carries loads of inspiration. If that continues we will all be fruit growers. Hope your paper will be a success.

H. D.

*Answer.*—We advise spring planting. Trees, however, should be ordered in the fall as you are apt to get better stock and probably better prices. If the trees must be delivered in the fall they should be "heeled in." I think you are familiar with this process. If not it may be stated briefly as follows: Dig a trench wide and deep enough to accommodate roots of trees, throwing soil all to one side, which will make a sloping bank on which the tops rest. Then cover roots and trunks deeply with mellow earth which should be tramped firmly about the roots. Finish the top by covering with coarse manure after the ground is frozen. We prefer early spring delivery.

*Question.*—What do you think of planting peas in a cherry orchard and cut them green, then sow buckwheat and turn under for fertilizer. (I would not put peas close to tree so as to give space for cultivating with a horse.)

*Answer.*—Not enough cultivation. Better sow peas early, leaving five

feet space from trees. Take peas off and cultivate for three weeks, then sow buckwheat for cover crop.

*Question.*—What crop would be the best to put in an orchard the first three years?

*Answer.*—A hoed crop. Potatoes, beans, corn, garden truck.

*Question.*—What do you think of dragging around the trees till about the 25th of June and then sow buckwheat to cut for grain?

*Answer.*—Don't think much of that. Better not use orchard as grain field.

*Question.*—How many pickers are required per acre on ten year old trees?

*Answer.*—About twenty-five good ones; lots more if lazy.

Answers by D. E. Bingham.

The following questions were sent in by a member from Jackson county who intends to plant fifty acres of apples. The answers are by the editor, who requests the assistant editors to revise and correct same.

*Question.*—1. What do you consider the four best varieties for a commercial orchard.

*Answer.*—Duchess, Wealthy, McMahan, McIntosh.

2. What are the next best four?

*Answer.*—N. W. Greening, Longfield, Fameuse, Patten Greening.

3. Would you set many Longfield?

*Answer.*—No. Very hardy and immensely productive but too small unless thinned.

4. How does the Okabena compare with the Duchess as to hardiness and production?

*Answer.*—Fully equal or superior in both points but too small and too near Duchess season. Tested thoroughly at Wausau.

5. How are Scott Winter and McIntosh red?

*Answer.*—Scott not worthy. McIntosh O. K., one of the very best. Ask James Melville, Chippewa Falls, about McIntosh.

6. What part of a fifty-acre orchard would you set to Duchess? ;

*Answer.*—Ten to twelve acres.

7. How is the Peerless apple?

*Answer.*—Condemned by the Min-

nesota Horticultural Society but is doing very well at Wausau *at last*. Took ten years to get ready. Large, showy apple, and bears well *now*. Life is too short.

8. Would you set any plums?

*Answer.*—Not many; and in your locality only the natives, such as De Soto, Surprise, Rockford, etc. Not to exceed two acres in all.

9. Any new varieties you would recommend to try?

*Answer.*—Dudley, the coming apple for Wisconsin. Trees very scarce of the *true* Dudley. Avista for sweet. Both hardy. Test Delicious for hardiness.

## WHY RUSETT APPLES WILT

Ever since russet apples have been grown they have had the fault of wilting in storage. It is constitutional with them. Their skin is rough and porous, and not smooth and covered with a coat of wax as all other kinds are. If anyone will scrape the surface of an ordinary apple with a knife he can easily see that a white wax is gathered on the blade. In some cases it is very noticeable and may be gathered into a little ball. This wax may be made to shine by rubbing the apple skin and this is often done by retail fruit dealers and exhibitors at fairs, to enhance their beauty. But it lessens their keeping quality, because of taking off some of nature's protective covering. The russets have almost none of it and therefore their internal moisture or juices easily passes out. The way to prevent the wilting is by storing the apples in a very damp place. But it must be cool as well, or the apples will ripen and rot.—H. E. Van Deman, in Rural New Yorker.

## STRAWBERRIES COMING LIKE IN JUNE

The flood of second-crop strawberries, is continuing at high tide, and it is wonderful to note the size and quality of the berries, and their exceptionally fine flavor. Yesterday between twenty-five and thirty cases were delivered in the city, the Fruit Growers Association getting nineteen of them, and the grocery dealers picking up the balance. They continue to sell readily at four dollars a case. —Sparta Herald.

**OUR FAMILY CIRCLE**

*News, Notes, Gossip and Social Events.*

**NOTES FROM PENNSYLVANIA.**

"I am just in receipt of your paper, the WISCONSIN HORTICULTURE, and have read every word of it. It is a crispy little paper. I have spent five weeks at Pittsburg and Connellsville, Pa., and other places in southern Pennsylvania. The northwestern part was visited last spring with the same heavy snow that we had and southern Wisconsin but in the southeastern part there is a good crop. At one place they can't sell their fruit for enough to pay expenses of gathering it and are giving it away. I went into one orchard up in the mountains two miles above Fort Hill, an old Indian fort of olden times, and saw and measured some red and black cherry trees set sixty-five years ago that measured five feet through the trunk four feet from the ground the top spread forty-five feet and they must have been from forty to fifty feet high and sound and healthy, and apple trees set the same time two and a half feet and the top must have a spread of thirty feet and healthy with a good crop of fruit. But they were all badly neglected; never been sprayed and not pruned for eighteen years and still had a good load of nice large fruit. At Pittsburg where I spent the most of my time they were holding their Exposition for September and October and they had fruit from all over the United States, or almost. They had their red apples there from Hood River country as usual. It was bright and red and next to their exhibit was the exhibit from Roanoke, Virginia, and their fruit was larger and better flavor than the Hood River fruit. It was crisp and juicy and of No. 1 flavor, of such quality that they can't get, in a dry country where they have to irrigate. You have got to have rain and dew to give flavor and juice to fruit. If I was going to leave good old Wisconsin to raise fruit I would go to Roanoke, Virginia. The Hood River land boomers are the ones who are making the money and there are suckers that will bite at their bait

and find their mistake when it is too late. I know what I am talking about. Wisconsin is good enough and Langlade County is one of the banner counties of the state. Come and convince yourself."

Yours truly,

Antigo, Wis. H. F. MARSH.

Mr. Marsh has lived in Wisconsin nearly half a century and ought to know.

**BETTER THAN THE BULLETINS**

Such a publication as this will, to my mind, create more interest in the field of horticulture than the books and pamphlets issued at different times, as there will likely be a variety of topics from month to month, while pamphlets are confined to but one subject. Then, too, there are the advertisements. It often happens one wants to buy something in the horticultural line but has no guide to reliable concerns.

I sincerely trust the paper is in the field to stay and hope the time is not far distant when we can boast of an official monthly organ of thirty-two pages, touching upon every topic relating to plant life.

Wishing the new paper the best of success, I remain,

Sincerely yours,

One of the Family of 1400.

**THE HOLLANDERS ARE HERE**

I would like to suggest that whenever and wherever we can we should urge the planting of Dutch bulbs both for indoor and outdoor decoration. I have had some experience along this line and believe that the practice should be more generally followed. Last February I had twenty-six hyacinths in full bloom in our dining room windows and they were the wonder of the neighborhood for weeks. Now is the time to get at it.

A. B.

**COUNTY FAIR EXHIBITS POOR**

As an indication of how hard southern Wisconsin was hit by the spring frosts, Walworth County Fair, the largest in the state, exhibited this year only six plates of apples.

H. M.

Dane County Fair had two plates, both Wolf River.

**WEDDING BELLS**

Married:— "Arthur J. Jorgensen, Junior Partner of Lake View Nursery, has lately been married to Mabel Larson. Parties wishing to congratulate the young couple can do so by addressing A. J. Jorgenson, Poysippi, Wis."

This is the kind of news we want. Not only is it news but *good* news. We hasten to extend our congratulations to this young couple, wishing them centuries of happiness. We send you greeting Arthur J. and wife and we think our best wish is this: when these short honeymoon days are over, when ten, twenty, forty years have passed, may you be good friends and lovers still. Nothing else matters much.

Married.—Hibbard-Moore. At the residence of the bride's parents at Shephard, Michigan, October 15, Miss Josephine Hibbard; Mr. Jas. G. Moore.

We are not very clever at writing marriage notices and the above may not be in proper form but the main fact is there,—Prof. Moore is married, and that is the choicest bit of news that has reached us this month. Prof. Moore is too happy and pre-occupied to talk much but this we heard after much asking; the old, yet ever new and delightful story; a boyhood friend at Shephard, the home of both, long years at college, winning a way in the world, a girl waiting back at the old home. Prof. Moore's friends, and that means all who know him, will be delighted on hearing the news. We know it.

**THE APPLE CONSUMERS LEAGUE**

We earnestly recommend everyone of our readers to join this Brotherhood at once. No application blanks needed, no fees, dues or assessments; has no officers or executive committee, no definite location. A lodge meeting is called every time two members meet. There are no obligations but one, viz., to call for apples in some form, baked apple, apple sauce, apple pie, any old kind of apple dope so that it be apple, at every meal when at a hotel or other public eating place. Try it and notice what happens.

# Wisconsin Horticulture

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 L. G. KELLOGG, Treasurer.....Ripon  
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WM. TOOLE F. CRANFIELD  
 L. G. KELLOGG

Annual Membership.....\$0.50  
 Life Membership.....5.00  
 Remit to Secretary W. S. H. S.  
 Madison, Wis.

Too early yet to do Christmas shop-  
 ping, but not too early to plan for  
 the Annual Convention, January 10,  
 11 and 12.

We must have more members if  
 WISCONSIN HORTICULTURE is to be con-  
 tinued. It is up to you.

Duchess, Wealthy and McMahan.  
 Who has a better trio than this for  
 commercial orchards in Wisconsin?

We received no protests about the  
 dollar fee for annual membership and  
 several members have said a dollar  
 was little enough. Speak up, please.

Keep your eyes open for the De-  
 cember issue. We are going to have  
 some more fun with the nursery  
 sharks.

Members are asked to send in  
 names of neighbors or friends who  
 ought to join. We will send a copy  
 of HORTICULTURE and an invitation.

### THOSE PESKY RABBITS AGAIN

The following communications  
 have been received in response to our  
 request in the October issue for opin-  
 ions on the law protecting rabbits.  
 We hope to receive others.

The editor of this family journal  
 holds some rather anarchistic opin-  
 ions so far as game laws are con-  
 cerned and the rabbit law in particu-  
 lar. We are in favor of a rapid and  
 complete extermination of rabbits.  
 We claim that the damage from rab-  
 bits in Wisconsin last year greatly  
 exceeded that done by foxes and  
 wolves combined. We pay enormous  
 bounties for the scalps of wolves but  
 protect rabbits. Why?

"In regard to rabbits, there ought  
 to be a bounty on their scalps. It is  
 an outrage to protect a thing that  
 does as much damage as the rabbit.  
 There ought to be a desperate effort  
 made to repeal the law and then go  
 after the rabbits. When they are ex-  
 terminated hunters could amuse  
 themselves shooting sparrows. The  
 only rabbit that should be tolerated  
 is a stuffed one."

G. JORGENSEN.

We prefer ours stuffed with bread  
 crumbs, sage and other herbs.

"I see in the October issue of Wis-  
 consin HORTICULTURE that you advo-  
 cate repealing the law that protects  
 rabbits and squirrels. For my part I  
 would not go so far as to repeal the  
 law but I would like to see it amend-

ed so as to allow killing them at any  
 time on your own premises."

F. J. MUELLER.

"I notice what you say in the Octo-  
 ber number regarding the damage  
 done by the rabbit. I think it is a  
 shame for the great state of Wiscon-  
 sin to have such a law on its statute  
 books to protect a pest that will de-  
 stroy the labors of farmers, nursery  
 and orchard men who have given  
 their time to promote these indus-  
 tries.

The far distant country of Aus-  
 tralia offers a reward of \$25,000 to  
 exterminate this pest, while our  
 bright lawmakers enact a law to pro-  
 tect it. I think it is the duty of every  
 farmer, nursery and orchard man to  
 circulate a petition to ask our next  
 legislature to repeal that part of the  
 law pertaining to the protection of  
 rabbits and allow the people of the  
 state of Wisconsin to protect their  
 shade, nursery and orchard trees.

As I am myself interested in some  
 orchards in Wisconsin, I hope that  
 you will keep at this until some  
 action is taken when the next legis-  
 lature meets. Sorry that I can not  
 be in Wisconsin this winter to help  
 in this work." JOHN N. HAGER.

Golden, Colo.

The following from the Superior  
 Telegram of October 13 is good stuff.  
 Game fiends please take notice.

"According to prominent members  
 of the Douglas County Fish & Game  
 Protective league and Douglas Coun-  
 ty farmers the rabbits in this section  
 of the state must be exterminated if  
 the country is to develop fruit or-  
 chards. The rabbits are the greatest  
 destroyers of fruit trees that the  
 growers have to contend with and  
 there is absolutely no chance to en-  
 gage in fruit growing until the rab-  
 bits are killed off.

Some have suggested a bounty but  
 others claim that if the state's pro-  
 tection was removed the hunters  
 would kill the rabbits without the ne-  
 cessity of a bounty. In some states  
 there is a bounty on rabbits and they  
 are characterized as pests.

"I am in favor of removing the  
 protection for rabbits," said W. E.  
 Pickering of the Fish & Game Pro-

tective league. "It has been demonstrated that this is a great fruit growing region but the farmers will never be able to make a success of it as long as rabbits are allowed to overrun the country. I wouldn't go so far as having the state put a bounty on the pests but the county can take care of that if the hunters do not exterminate the rabbits rapidly enough."

#### MORE RABBIT

We believe in rabbits,—stewed or roasted, and it is with great pleasure that we give herewith some very excellent recipes by Mrs. L. H. Palmer, for preparing the little devils for the table. Get your gun, quick!

#### ROASTED RABBIT.

Dress carefully, taking care to remove the small, white kernels from beneath the forearm, as they impart an unpleasant flavor to the meat. Lay the rabbit in slightly salted water for half hour. Prepare a rich dressing of bread crumbs well seasoned with butter, salt, pepper, sage and a little minced onion; add half a cup of milk to moistened the bread. Wipe the rabbit dry, lay in roaster, fill with dressing and dust lightly with salt, pepper and celery salt. Roast till tender; garnish with celery-tips and serve with apple sauce, made by slicing tart apples into a rich sugar syrup and cooking till clear.

#### STEWED RABBIT.

Dress the rabbit carefully, removing the small, white kernels from beneath the forearm, as they impart an unpleasant flavor to the meat. Cut in pieces and lay in slightly salted water for half hour. Place in stew pan two cups water, a piece of butter the size of an egg, bring to a boil and drop in the pieces of rabbit, covering closely, and cook gently till tender, when salt and pepper should be added and the meat allowed to cook down till nearly all the water is cooked out, leaving the richness in the meat. Garnish with thin slices of stewed carrot, and serve with rich plum sauce made from native plums.

#### THREE WAYS TO COOK RABBIT.

Rabbits, if young, should be fried. Dress carefully, always removing the

small, white kernels just beneath the forearm, as they impart a strong flavor to the meat. Cut the rabbit in pieces and lay in cold water for a half hour. Place in the frying pan two tablespoonfuls of butter, or half butter and half lard; when hot, wipe the pieces of rabbit dry, lay in the hot fat, cover closely and draw to one side of the range. Turn frequently, that all parts may be well cooked, removing the cover just before taking off, to insure the meat being nicely browned. Garnish with bright red cubes of apple, and serve with tart apple sliced and fried to a delicate brown in butter. Just before serving, dust meat lightly with salt and pepper.

MRS. L. H. PALMER.

#### REPORTS FROM LOCAL SOCIETIES

##### OSHKOSH.

We were very much pleased with the initial number of WISCONSIN HORTICULTURE. If the first number is any indication of its future it will prove of great value in furthering the horticultural interests of the state.

The Oshkosh society has been holding its meetings during the summer months, at the homes of its members. Mr. Phillipson entertained the society for the September meeting. He made a fine display of flowers and vegetables for the occasion.

We are sorry to report the loss of our secretary, Mr. Ward B. Davis, who has gone to Lancaster, Cal., to reside.

Mr. Sperbeck acted as judge of the fruit at the McHenry County Fair at Woodstock, Ill.

Mr. C. Phillipson had charge of the horticultural department at the Winnebago County Fair.

While the past season has not been a favorable one for tomatoes, our local variety, the Buckstaff, has given excellent satisfaction.

White Spine and Long Green cucumbers seem to be the favorite varieties for the family pickle trade in this vicinity.

Davis Wax has proven to be a fine early flat bean. Hodson is fine, too, but much later.

Some excellent melons have been marketed in spite of the drought.

Gem, Osage and Honey Dew are the leading varieties. SECRETARY.

##### MANITOWOC.

The following is a synopsis of Mr. Bingham's discussion on Apple Culture at one of our meetings last year:

Mr. Bingham said that "Commercial orchards in this state were a success and could be a success in Manitowoc County if proper care was given the trees. He advocated mulching as essential and most of all spraying with the Bordeaux Mixture. This spraying should be begun as soon as the blossom opens, which should be thorough, shifting to the side of the trees from which the wind came if the wind was a hindrance at times. Spraying could be profitably done at least four times during the season, even if the fruit showed signs of the mixture this would generally ensure complete success.

He laid stress on proper pruning and recommended a low crown which would prevent careless laborers from injuring trees in many cases and would be easy picking. He recommended the red apple as the best sellers, although there were such as the Tolman Sweets which were good. Others recommended for commercial purposes were the McIntosh, Snow, Wealthy, Dudley, and thought it possible to make a success of the Duchess on account of being able to plant more trees to the acre, even if the price were but \$1.50 and others were \$3.00 per barrel.

C. W. MEISNEST. Secretary.

##### ALGOMA.

The Algoma Society held its regular meeting at Grange Hall, two miles west of Oshkosh, the evening of October 11. Twenty people were present; we had a pleasant family visit. Also an interesting discussion about the new publication, WISCONSIN HORTICULTURE. We had our regular lunch of coffee, biscuit and cake.

The meeting adjourned to meet again the second Tuesday in November. Wait till you hear from the Oshkosh society, then you will think that everything is not as quiet as it might be along the Fox that empties into beautiful Lake Winnebago.

Yours respectfully, J. B. NOYES.  
Only One Oshkosh.



### HOW CAN BETTER RESULTS BE OBTAINED IN A DRY SEASON, BY IRRIGATION OR BY CONSTANT CULTIVATION?

With the former I have had little experience so I will speak of the latter method and relate my experience with a patch of melons containing about two acres.

With an early and otherwise exceptionally favorable spring and with

very thorough examination of the seeds and decided it would be of no use to delay longer. On the morning of June 13 the disc was put into the melon patch. The land was thoroughly disced, next came the spring tooth harrow going over the land both ways, this was followed by the fine tooth harrow; next in turn came the crusher and last of all the mark-

sun had set June 14 the field was planted once more.

The weather was now more favorable and six days later the rows could plainly be seen. Large strong plants had appeared. As soon as the plants had a good start they were hoed and thinned to six or eight plants to the hill and when the danger from the striped melon bug was over we thinned them to three plants to the hill.

The fine tooth cultivator, a great friend of the melon and garden in general, was kept in constant use from the time of first planting until July 23 when the vines covered the ground so as to prohibit cultivating. That night a good shower of rain fell which, by the way, was the first rain the melons had had since planting June 14.

July 30 another light shower fell and today the vines entirely cover the ground and are in as fine condition as one could wish. There is plenty of fruit set and a great many are full grown and I think if we should have no more rain this fall we would still have a fair crop of melons.

N. A. RASMUSSEN.

Oshkosh.

Paper read at recent meeting of the Oshkosh Horticultural Society, one of the "live" ones.



Muskmelon Field, Rasmussen Fruit Farm, 1910

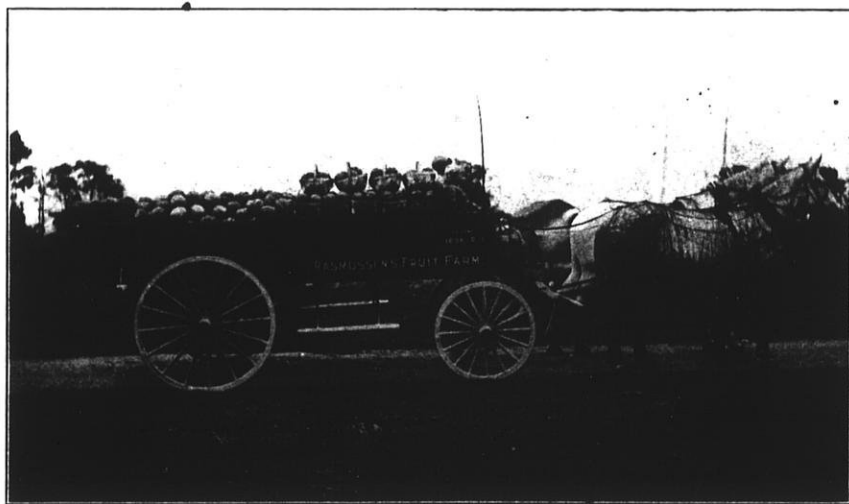
the land in fine condition, I planted this field May 16, this being somewhat earlier than usual. Soon after this, cold, damp weather set in and continued, and about ten days later I feared my seed was spoiled; so to make sure of a good stand I replanted about June 1. This time I planted from ten to fifteen seeds beside the first hills and I now felt sure I was safe, and continued to cultivate, wait for warm weather and watch results. I had also stirred the hills frequently with a garden rake.

Of the first seeds I planted but few came up and these looked yellow and weak, while the rest were just below the surface ready to break through the ground and remained in that condition until June 10 with practically no change. The seeds planted June 1 were in about the same condition and showed no signs of improvement.

What was to be done? It was twenty days late for planting and I had no seed left as I had saved only enough for twice planting and I do not, for various reasons, like to use melon seed bought from seed houses.

I waited three days more, made a

er going both ways. The land was now in excellent condition. While all this work was going on I went to find seed. I visited every seed store in Oshkosh, telegraphed the neigh-



A Load Ready for Market

boring towns and large growers but no seed could be obtained. However, a telegram to a neighboring state brought the seed to Oshkosh by mail early next morning and before the

The above pictures, recently received, show something of the final results.

Ed.

Apples to sell, not to keep. This is our battle-cry.

## VIA WIRELESS

BY OUR POET—LAUREATE.

The wireless is busy at far Sturgeon Bay  
And the news as it comes in this unusual  
way  
Would make you sit up and listen and  
laugh  
T'is Bingham he slings 'em until the car's  
full  
Of cherries and berries, it don't tell the  
whole  
But Bingham he slings 'em at a dollar  
and a half.

Now Lawrence and Bingham and Hatch  
and one Coe  
All have a large share in the deal you  
must know  
And they hoard up the profits in an old  
can or sock  
For they think that the banks are not  
founded on rock  
But their cherries and berries, it makes  
them to laugh  
And Bingham he slings 'em at a dollar  
and a half.

The poor fellows who can't get an eighty  
or more  
Up near the north pole on Michigan shore  
Must still stand the frosts and droughts,  
understand,  
They've bought the peninsula and own all  
the land.  
Their cherries and berries, it don't make  
us laugh.  
Yet Bingham he slings 'em at a dollar and  
a half.

Bayfield was boosted when winter was  
here,  
They planted bananas I think, I'm not  
clear,  
Their cherries and berries dried up, 'twas a  
fright;  
But the world wasn't made in a day or  
by Knight,  
And cherries and berries would make a  
N(0)urse laugh  
If Bingham would sling 'em at a dollar  
and a half.

Now Cranefield he heard in some sort of  
way  
What carloads they raised at far Sturgeon  
Bay;  
How they never had frosts to shorten  
their crop,  
Where insects don't trouble nor apples  
don't drop.  
So he says, "I'll go up there—" I don't  
believe half,  
They say Bingham slings 'em at a dollar  
and a half.

And since he returned from that great  
far northern land  
The state papers announce from his Italian  
hand  
That the half was not told (they're so  
modest up there).  
That the wonderful crops just results from  
the Air;  
That their cherries and berries, 'twould  
make a man laugh  
To see Bingham sling 'em at a dollar  
and a half.

The above touching ballad was inspired by reports of the enormous crops of cherries at Sturgeon Bay and the fabulous prices received. The author, whose modesty is one of his chiefest charms, begs to remain unknown for the present. If the pressure is sufficient, however, we will disclose his name in the December number. Ed.

## WANTED—AN ARTIST

Have we an artist in our family of fourteen hundred? We need an appropriate design for the front page of HORTICULTURE, something a little

better than any other publication puts out. The editor will receive and file all copies forwarded and present same to a committee to be appointed by the president of our Society. The design should not be over 3½x7¼ inches.

## WINTER PROTECTION FOR SMALL FRUITS

It is now time to be thinking seriously of winter protection for small fruits. For strawberries, the usual covering of straw is good. In mild locations, a layer of straw not less than four inches thick should be applied. In more severe locations this should be increased to six inches. In some years almost any covering will do; but winters that are hard on strawberries, and which injure and kill them out when not heavily covered, are sufficiently frequent to make it worth while to be well prepared.

It is important to have the straw free from weed seeds. Marsh hay is an ideal covering for small patches, when it is available. It is better than straw. Manure should not be used unless it is very light, because it is liable to settle down and smother the plants. The covering should be applied as soon as the ground is frozen hard enough to hold up a wagon. Sometimes a part of it is put on even before this time.

Raspberries and blackberries are nearly always sufficiently benefited, by laying them down and covering with earth, to make the expense and trouble more than pay. The work is done by bending the canes to the north and covering them with earth. If the canes are large and stiff, and growing in hills, the best way is to dig a forkful or two of earth away from in front of the plant before bending over. It is more convenient to begin at the north end of the row. The entire cane should be covered with earth.

This work may be done any time after the leaves fall, and before the ground freezes up. It can not be done while there is frost in the canes, for they will snap off. The only pruning necessary before laying down is to remove the old canes and some of the new ones, if they are too numerous. Leave just enough of the new canes to bear a good crop the follow-

ing year. If they are planted in hills, and the canes are large, stocky and well-branched, about four to six new canes in a hill will be sufficient. Horse power may be used in covering the canes, by first laying them down by hand and covering the tips with enough earth to hold them in place, and then plowing a furrow against the canes from each side. A man should then follow with a spade, and complete the covering in spots missed by the plow.

Currants need little protection except from deep snows, which sometimes break down the branches when settling in the spring. Bushes may be protected from such injury by simply tying them together, with light rope or binding-twine, tightly enough to hold them up straight, so that the snow can not bend them down and break them. A. R. KOHLER.

*Minnesota University Farm.*

## BEWARE OF DOUBLE CROPPING

I have an object lesson in my orchard what strawberries will do to cherry trees and currant bushes. I am done with strawberries in an orchard. An orchard should be given to trees and all other crops kept out if you want the best results with trees. W. K.

## FORTY - TWO YEARS.

## The Jewell Nursery Co.

Hardy Fruit and Ornamental  
Trees, Shrubs and Plants

Lake City, - Minnesota

FIFTEEN HUNDRED ACRES

## Hardy Nursery Stock

Adapted for the Northwest

We offer a complete line of Fruit,  
Shade and Ornamental stock.  
Varieties that will suit  
your needs.

Berry Plants, Grape Vines  
Asparagus, Rhubarb,  
in the Leading Sorts.

Garden and Commercial Orchard  
Planters will do well to write to us.  
Prices consistent with Quality.

## McKay Nursery Co.,

Pardeeville, Wis.

Nurseries at Waterloo, Wis.

**EARLY GRAPES**

Two fine early grapes for family use are the Green Mountain and Wyoming Red. This is not saying they would not be good for market, especially a local market where their excellence could be demonstrated to individual customers. They are among the very earliest, are heavy bearers, vigorous growers and high in quality. Those who like a very sweet grape, the Green Mountain will perfectly satisfy. The old well known Delaware is considered the standard of excellence in the grape family by which other kinds are compared. It is a small pink colored grape with sweet and acid rarely blended. It always sells at the highest price on the market where it has an established reputation, but under ordinary treatment is hardly prolific enough to be profitable.—Exchange.

**OUR FRIENDS ON THE HILL**

Only a few years since, in 1898 to be exact, students in the College of Agriculture to the number of *seven* elected horticulture as one of their studies and of these but one specialized in the subject. This year the number is somewhat larger as shown by the following from Prof. J. G. Moore:

"Some time ago I promised you to give you information relative to the number of students taking horticulture during the present semester. As yet all class cards are not in, but I am giving you data which we have at the present time. The registration to date in horticulture is as follows:

General horticulture, 125;

Vegetable forcing, 18;

Pomology, 13

Plant breeding, 5;

Thesis, 4;

Experimental horticulture, 1; making a total of 166 students enrolled in horticulture for the present semester. In the pomology and vegetable forcing courses, the enrollment is over seventy-five per cent greater than ever before.

Another note which might be of interest to you is the fact that last week ground was broken for the new \$50,000 horticultural building. This building in connection with the greenhouses and potting shed will house

the departments of Horticulture and Plant Pathology. The building, it is hoped, will be ready to be occupied at the beginning of the next school year. Work on the greenhouses and potting shed is progressing, and we hope to be able to move into them some time next month. There are 400 feet of greenhouses 20 feet wide, a potting house 20 by 68 feet, and the plant pathology laboratory 33 by 20 feet. I would be glad to give you a fuller description of the houses and also the plan of the new horticultural building if you desire to come out some time and talk over the matter with me and look over the plans. Very truly yours,

JAMES G. MOORE.

*Associate Horticulturist.*

THE UNIVERSITY OF WISCONSIN.

Madison, October 17, 1910.

Mr. Frederic Craneheld.

Madison, Wisconsin.

Dear Sir:

I want to congratulate you upon the appearance of the official organ of the Horticultural Society, a copy of which I have received. It seems to me that when you can present actual records of crop returns which show a sale of orchard fruit from \$500 to \$800 per acre, there is little necessity for our people interested in horticulture to pull up stakes and go to a new country to undertake such work. With the unlimited markets that obtain at our very doors, our people interested in horticulture can save the \$300 to \$400 freight per car which is necessary to transport fruits to the markets where the material is consumed. What our people need is a plain recital of the actual facts and opportunities that exist in our own midst, and through the medium of your paper I think this can be most thoroughly accomplished.

Yours truly,

H. L. RUSSELL.

These words of encouragement from the Dean of our Agricultural College will, we are certain, be deeply appreciated by our members.

Every member is invited to contribute to the columns of this magazine. News, notes, gossip, information.

**Wisconsin Grown Apple Trees**

For planting in Wisconsin, are proving their superiority more strongly each season. You will have to order quickly if you get ours. We excel all others on Native Plum and Compass Cherry, two year budded on native plum roots five to seven feet. : : : : :

Large stocks of Currants and Gooseberry plants. Minnetonka Red Raspberry. Strong transplants of the tip varieties. : :

We make a specialty of high class Shrubs and trees for public and private grounds. Our soil is a heavy upland clay timber growing soil and we do not compete with scrubby grown stock from poor soils. : : :

**HENRY LAKE SONS COMPANY,  
NURSERYMEN  
BLACK RIVER FALLS, WIS.**

**NOT THE BIGGEST****NURSERY  
PERHAPS****BUT WE ARE DOING THE  
BIGGEST BUSINESS**

We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

Attractive prices will be made to Market Gardeners and other large buyers of Nursery Stock.

**Our Catalog is an A B C Book**

In its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY  
Wauwatosa, Wisconsin**

Send For **PANSY GUIDE AND CATALOG**  
Our ..

of Flower Seeds and Plants

**FREE TO ANY ADDRESS**

**WILLIAM TOOLE & SONS**

**PANSY HEIGHTS, BARABOO, WIS.**

**EXPERIMENT STATION LITERATURE**

The different Agricultural Experiment Stations publish bulletins at least quarterly. Many of these relate to subjects of interest to our members and we shall endeavor to give lists occasionally of the ones which seem to us to be of greatest value.

The following have been received recently:

Diseases of Cultivated Plants in Ohio, Prof. A. D. Selby, botanist. 250 pp., Ohio Agr. Exp. Sta., Wooster.

Part I., concerning plant diseases in general, is an excellent treatise on fungous diseases.

Part II. gives descriptions of hundreds of diseases, with illustrations. A valuable bulletin.

Special Bulletin No. 51. Michigan Agr. Exp. Sta., East Lansing. Spray Practice and Outline for Fruit Growers. Eustace & Pettit. 16 pp. A spray calendar with hints on preparing mixtures. We think it almost as good as our Bulletin No. 19.

Windbreaks & Hedges. North Dakota Exp. Sta., Fargo, by C. B. Waldron. 11 pp. and 9 full page cuts.

The Country Schools of Ohio. A. B. Graham. Ohio State University, Columbus. A plea for the betterment of country schools. Good reading for some of our school officers.

Apple Orchard Survey of Niagara County, New York, John Craig. Cornell University, Ithaca. Describes orchard conditions in detail giving cost of production, etc., in large apple orchards. Worth reading.

Classification of the Peony. L. D. Batcheler, Cornell University. Supplementary to Bulletin 254 on same subject. An index or catalog of several hundred varieties of peony. Valuable to the specialist. Does not give cultural directions.

Arsenical Poisoning of Fruit Trees, by W. O. Headen, chemist, Colorado Station, Fort Collins. A brave argument in support of contentions previously set forth that the

heavy spraying of fruit trees in Colorado with arsenical poisons injures and destroys trees. Not much danger in Wisconsin so far. We have failed to hear of any one who has sprayed *too much*.

U. S. Department of Agriculture.

Bureau of Chemistry, Bull. 101. The Lime-Sulphur Wash and its Substitutes. A technical discussion of lime-sulphur and various substitutes. Too many scientific terms for easy reading but contains much of value.

Bureau of Entomology. Bull. 66. The Asparagus Miner and Notes on Asparagus Beetles. Brief but excellent.

Readers of HORTICULTURE may obtain copies of any of the above. For the state publications address Director, Agr. Exp. Station.

For U. S. Dept. bulletins write to Secretary of Agriculture, Washington, D. C.

**EXPATRIATES PLEASE TAKE NOTICE**

We are for Wisconsin first, last and all the time. This means the State Horticultural Society and its official organ, WISCONSIN HORTICULTURE. The editor of the one is secretary of the other and any time the members or officials object to this policy there will be a new man on the job.

Wisconsin is good enough for us. In richness and diversity of soils it is unsurpassed by any state we know. Opportunities for the successful and profitable raising of fruit are as great as in any other state. Apples yielding \$300 to \$700 per acre, cherries \$400 to \$800 and small fruits in like proportion tell only half the tale. Our nearness to market, next door to ten million people all hungry for our apples, cherries and berries and this population to be doubled in 25 years, makes Wisconsin the logical fruit basket of the upper Mississippi valley.

Clean, first-class barrel apples of the kinds we can raise in Wisconsin have sold on the Chicago market this fall at \$3.50 to \$4.00 per barrel and never enough of the right kind.

One hundred thousand acres might well be planted to fruit in this state next spring with a certainty of a market for the product at good prices. Don't worry about the western boomer; we can buy an acre of land in Wisconsin, raise an orchard on it, pick, pack and market the fruit for less than it costs the western grower to get a single car load of his fruit to our markets. See Dean Russell's letter in this issue.

So we say again we are for Wisconsin from January 1 until the day before the following New Year and we hope this is the sentiment of every one of our fellow Badgers. Is there a traitor among us. Put him out!

Wisconsin apples do not keep,—too good to keep.

## Vincennes Nurseries

Vincennes, Indiana

**W. C. REED,**  
**PROPRIETOR**

**Cherry Trees by the  
100 or 100000**

The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited

## Forest Hill Nursery

**George Rentschler, Proprietor**

Trees and shrubs for street and lawn. Bulbs and hardy garden plants. A full line of fruit trees, bush fruits and strawberry plants

**Madison - Wisconsin**



### THE NEGLECTED HOME ORCHARD

"How shall I bring my run-down, neglected orchard back to a state of profitable production?" is a question which if it were dealt with fully would probably need as many answers as there are neglected orchards. The very first thing to determine is the reason for the existing unprofitable condition. The reason is neglect, of course, but neglect may lead to a great variety of troubles, and we must try to find out just what the troubles in an individual case happen to be before we can remedy them.

It may be that the land is low and poorly drained and that the trees suffer from spring frosts and "wet feet." If so, that piece of ground was never meant for an apple or-

as much potash" as twenty crops of wheat would remove counting grain and straw with an annual average yield of fifteen bushels per acre. Where the trees are compelled to compete with other crops for a supply of food and water, it is no wonder that they sometimes succumb, considering the heavy demand they themselves must make in order to make good yields.

Not infrequently the neglected orchard is unprofitable because the trees are so crowded together that there is a struggle for bare distance between one tree and its neighbor. The results of this crowded condition may be seen in the long leggy tops, climbing skyward like forest trees, in the struggle for light and air. Such an orchard, with the tops out of

ing has very likely not been known to the orchard, and what fruit there is, is scabby, deformed and wormy. Pruning has probably been overlooked, or if it has been done at all, it has been done with an axe in a sort of kill or cure way, which left the trees in worse condition than before.

Much is being accomplished nowadays with these old neglected orchards by renovation. By renovation is meant plowing, pruning, fertilizing, spraying, digging out the borers, and in short giving the orchard a thorough house-cleaning.

After the brush is cleared away (and it is surprising to see how large a quantity of prunings a few neglected trees will yield), the orchard should be plowed and harrowed and the surface made fine. Any one who has broken a twenty-year old blue grass sod in an orchard will appreciate why the trees suffer from it. A few surface roots may be cut by this plowing. Never mind that but go ahead. Get the ground fine and keep it cultivated till mid-summer, then sow a cover crop which will protect the ground till it is turned under the following spring.

Along with the cultivation should go a liberal amount of fertilizer. In



De Soto Plum Poplar Trial Orchard, Sept. 1910. Planted May 1904

chard and the best thing to do is to cut the trees at once and get some good fire-wood at least, and then set out some young trees in a more favorable location.

The trees may have ceased to bear fruit because the land, possibly never any too good, has been called upon to furnish continuous crops of hay or grain as well as to support the apple trees. It has been shown by pretty conclusive experiments that apple trees set at the rate of thirty-five to the acre (which would equal being set thirty-five feet apart each way) yielding fifteen bushels of apples per tree, draw from the soil in twenty crops more than "twice as much nitrogen, half as much again of phosphoric and nearly three times

reach, and the ends of the branches interlocking, is impossible to care for properly and can never be made to yield satisfactorily while in such condition.

Beside the condition spoken of above, there is another whole class of troubles brought about by the omission of those operations of what may be termed orchard hygiene, which are performed by the commercial grower as a matter of course. The trees may be half choked in a thick tough old sod; this sod is liable to harbor mice and rabbits and the trees may be suffering from their attacks as well as from borers, which thrive and multiply under the conditions furnished by heavy sod close up to the tree trunks. Spray-

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CURRANTS, STRAWBERRIES

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Kellogg's Nursery  
Box 77, Janesville, Wisconsin

the use of fertilizer in orchards, you must avoid too much nitrogen. For this reason heavy mulching with barnyard manure is to be recommended only for such orchards as indicated by their small annual growth, and by their scanty and light colored foliage that nitrogen is lacking. For soils of fair natural fertility and where a nitrogen gathering cover crop, such as clover, crimson clover, cowpeas or vetch may be grown, the following formula is suggested:

A thousand to 1500 pounds per acre of a mixture containing one part (100 pounds) each of ground bone, acid phosphate, and muriate of potash. On soils that are somewhat exhausted, 125 pounds nitrate of soda may be used in addition.

In order to get the greatest returns from this fertilizer, it should be thoroughly worked into the soil. This can be accomplished very well, by applying it to the surface just before plowing. The plowing and working of the ground will get the fertilizer pretty thoroughly incorporated and the trees will soon show the beneficial effect of its presence.

After the neglected orchard has been thus treated, an intelligent application of the spray pump will generally complete its cure.—C. C. Woodbury in Green's Fruit Grower.

This is the month for protecting strawberries and cane fruits. Note the excellent directions by Mr. Kohler on another page. We clipped it from an exchange.

#### A BUMPER CRANBERRY CROP

The cranberry harvest will begin earlier this year than last, and despite all reports to the contrary there is every indication that it will surpass all previous records in Wisconsin. The crop in Barron and adjoining counties never looked better than it does this year. On account of the unusual droughts this summer, in some instances it has been necessary to irrigate the cranberry marshes, but with plenty of water through irrigation the berries have grown rapidly, are larger and better than usual and the vines have more fruit than ever before.

As the picking season is now on, and there have been no serious frosts as yet, no loss from that score is anticipated.—The Shield, Barron, Wis.

#### OUR ADVERTISERS

We have confidence in every firm and individual whose advertisement appears in this issue.

We feel that members ought to use our advertising columns. If you have anything to sell or exchange, even if not in regular horticultural lines, let us know and we will make you a special rate for short time "want ads." We need the money.

Do not fail to mention this paper when writing advertisers.

At the risk of seeming sacrilegious the editor rises to remark that in his opinion God never intended Wisconsin for a game preserve.

## CHERRY TREES

#### A PLEASED CUSTOMER

Wisconsin Nurseries:

Gentlemen:—In spite of the very dry summer you no doubt will be surprised to learn that out of the 325 cherry trees you sent me, we lost only 15. Those living have made a growth of from 12 to 14 inches.

Yours truly,

W. D. COOKE

Green Bay, Wis., Aug. 17th, 1910

These trees cost Mr. Cooke, 5 to 6 ft. 20 cents, 4 to 5 ft. 15 cents. Early Richmond and Montmorency.

We are going to do better by our customers for spring of 1911, and furnish them with 5 to 6 ft. trees at 18 cents, 4 to 5 ft. at 14 cents, 3 to 4 ft. at 10 cents.

These 10 cent trees are big value for the money and we prefer them personally for our own planting to the larger trees as they transplant with more certainty.

#### PLACE YOUR ORDER TODAY

for next spring delivery for 100, 1000 or 10,000 trees and get started right on the royal road to cherrydom.

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Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grape Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

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**DOOR COUNTY LAND CO.,  
STURGEON BAY, WIS.**

## WINTER PROTECTION OF SMALL FRUITS.

After twenty odd years' experience in handing out information, reliable and otherwise on horticultural topics we have learned that the simple things need telling often, that we are apt to take too much for granted. We propose, therefore, to discourse occasionally on the A. B. C.'s of our art. For instance, everybody who has a strawberry bed should know that it must be covered during winter, not to prevent freezing of the ground, that is impractical, but to prevent alternate freezing and thawing. A light mulch of leaves, clean straw or marsh hay is sufficient.

Raspberries and blackberries ought also to be protected to insure a crop next year. You *may* get a crop next year without covering or you may not. The earth protection is an insurance. See article by Mr. Kohler on "Protection."

Tender roses should also be protected. Cover the ground with manure and tie burlap around tops. Mulch all herbaceous perennial

plants, such as Iris, Phlox, etc., with manure. Don't forget the strawberry bed.

*Ask Your Neighbor  
to Subscribe for  
**Wisconsin  
Horticulture***

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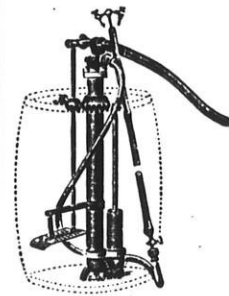
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## Beauty Spots in Spring.

Now is the time to purchase and plant groups of the different bulbs, such as Tulips, Hyacinths, Narcissus, Squills, Crocus, etc. The adornment of our homes can be accomplished at little cost and should be looked upon as a necessity rather than a luxury. To help transform our earth to Eden just start a little flower planting this fall and you can rest assured that others will emulate the following year. Its a low priced hobby, but an interesting one to the individual and also the community. : : : :

**J. E. MATTHEWSON & SON, 625 North Eighth St.  
SHEBOYGAN, WISCONSIN**

Watch for December  
Number of Wisconsin  
Horticulture.

## NOMINATION BLANK

*Applications for life membership must be accompanied by nomination blank, signed by a life member or annual member in good standing for two or more years.*

*I nominate* .....

*for Life Membership in The Wisconsin State Horticultural Society.*

*Name* .....

*P. O.* .....

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

December, 1910

No 4

## FACULTY OF DEPARTMENT OF HORTICULTURE, UNIVERSITY OF WISCONSIN

Some heading that; but on the whole not too pretentious. We thought, at first, of borrowing the head-line from the November number "Our Friends on the Hill" and we are a little sorry about it yet as it expresses the situation very nicely.

By way of explanation, not apol-



James G. Moore

ogy, we will say that this is in some sense a University of Wisconsin number; we want everyone of our members to become better acquainted with our fellow conspirators on the hill and to that end we print this month their portraits and something of a personal nature about each.

The "subjects" may wonder when they read this where, when and how we came into possession of their life histories and we will only say that though well informed gentlemen there are many things they don't know yet.

PROF. JAMES G. MOORE

*Associate Horticulturist, U. of W.*

Born at Shephard, Mich., in 1881; early education in the town and high school of Shephard, entering the

Michigan Agricultural College in the fall of 1899. After graduation in 1903 he was placed in charge of the orchards of the Horticultural Department of the Michigan College. In December following he was appointed horticultural editor on the staff of the Michigan Farmer where he remained for eight months, returning to the Michigan Agricultural College for advanced work, receiving his Master's Degree in June, 1905. July, 1905, he accepted a position as Assistant in Tobacco Investigations and Instructor in Horticulture at the University of Wisconsin, since which time he has been connected with the institution.

Prof. Moore's advancement to acting head of the Department following the resignation of Prof. E. P. Sandsten in June, 1909, was followed in June, 1910, by appointment as Associate Professor of Horticulture. In 1910 Prof. Moore was granted the honorary degree of Master of Horticulture by the Michigan Agricultural College.

Prof. Moore is well known to our members who attend the conventions and we hope all others will make his acquaintance. It is worth while.

AUGUSTUS J. ROGERS, JR.

*Assistant Horticulturist.*

Mr. Rogers was born in Milwaukee in 1885; received his early education in the Milwaukee schools, entering the University of Wisconsin in 1903, and was graduated in 1907 with the degree of Bachelor of Science in Agriculture. Upon Mr. Rogers' graduation he became Assistant in Horticulture, and during the two succeeding years in connection with his work in the department, pursued studies for the degree of Master of Science which was granted him in 1909. During his connection with the Horticultural Department he has devoted his time very largely to instructional work, experimental breeding and nursery

inspection. During the years 1908 and 1909 he was chief Nursery and Orchard Inspector.

Mr. Rogers' work along experimental breeding lines has been very largely concerned with the production of forcing tomatoes resistant to the mosaic disease. In this work he has crossed the Cherry and Peach tomatoes with the common garden



J. G. Milward

tomato, and has secured marked results. He has also been carrying on some work investigating the subject of production from large and small seeds of pure strains. He is also doing in connection with the Department on Plant Pathology some experimental work along the line of controlling the cabbage rot. Mr. Rogers' work in the future will be confined almost entirely to instructional and investigational lines.

JAMES G. MILWARD.

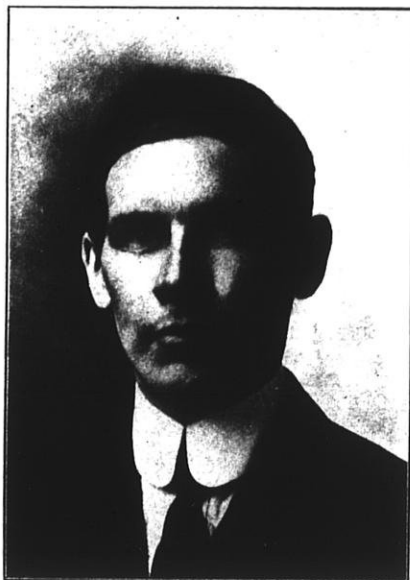
*Instructor in Horticulture.*

Born in Madison, April 5, 1881. Attended graded and high school in Madison, graduating in 1900. Graduated from Short Course in Agriculture, class of 1902. Entered Long



Course in Agriculture, University of Wisconsin, in 1903 and graduated with class of 1907.

During college course was first editor of *The Student Farmer*. Mem-



A. J. Rogers, Jr.

ber of Alpha Beta honorary fraternity.

Mr. Milward was awarded special honors by the Committee on Awards on his thesis "Agricultural and Botanical Status of the Early Blight Fungus (*Altenaria Solani*)."

Appointed Assistant in Horticulture in 1907 and Instructor in Horticulture in 1908. Awarded Master of Science Degree in 1909. Since graduation Mr. Milward has been engaged in Field Work in the University Extension Service covering Orchard and Potato Spraying.

Mr. Milward was married on July 6, 1910, to Goldie S. Mandt, of Windsor, Wis.

#### MR. JAMES JOHNSON.

Mr. James Johnson was born in 1886 in Deerfield and received his education in the Deerfield public schools, graduating from the Deerfield high school in 1904, after which he entered the university. Mr. Johnson's vacations during his high school course were spent on farms in Wisconsin and Minnesota. Owing to illness Mr. Johnson was unable to complete his course at the university until 1909, at which time he received the degree of Bachelor of Science in

Agriculture, and was made Assistant in Horticulture. Mr. Johnson's work in the Horticultural Department has been given almost entirely to tobacco experimental and breeding work. This branch of agriculture has been placed under the supervision of the Horticultural Department and Mr. Johnson's time is very largely devoted to this line of work. During the past two years he has been developing improved strains of the Wisconsin grown Connecticut-Havana which has been disseminated so widely by the station. He also has charge of the investigational work and extension work in tobacco culture.

#### DR. O. BUTLER.

Dr. O. Butler has had occasion to verify Johnson's remark that it is a delusive error to think that there is any opposition or conflict between Science and Art, between Theory and Practice. After two winters at the Agricultural School, Lausanne, Switzerland, he went to California, spent a few months in Placer County where the cultivation of early peaches is an important industry, afterwards settling in the neighborhood of Los Ga-



J. Johnson

tos, Santa Clara County. While at Los Gatos Dr. Butler was actively engaged in the cultivation of grapes, plums, peaches, and apricots. After a few years, however, Science proved more attractive than Art and he entered the Agricultural College, Uni-

versity of California, where he devoted himself mainly to the study of Viticulture and cognate subjects, and Plant Pathology. While an assistant in the Viticultural Department physiological diseases were called particularly to his notice, and his studies in this field have been partly placed before the public in *Observations on some vine diseases in Sonoma County, California*, California Agr. Exp. Sta. Bulletin 168 and *Observations on the California vine disease*, Torrey Botanical Club Memoirs. Following his studies on the physiological diseases of the grape vine, Dr. Butler while assistant to Professor R. E. Smith, Pathological Laboratory, Whittier, California, began the study of certain physiological diseases of the *Citrus*. In collaboration with Professor Smith he published *Gum Diseases of Citrus Trees in California*, California Agr. Exp. Sta. Bull. 200 which paper has since been elaborated by the junior author into a memoir on *Gummosis of Prunus and Citrus*.

Dr. Butler was appointed instructor in horticulture July, 1910, and will devote his time largely to research work.

#### NOW WILL YOU BE GOOD!

"He laughs best who laughs last." The writer of this item is much pleased and laughing a little, too. Unfortunately the joke will be apparent to only a few of our readers.

The immediate reason for the "laugh" comes from the announcement in another column regarding the incorporation of the Gays Mills Fruit Farm. For six long years the secretary has been talking about the clay hills of Crawford county as one of the very best apple sections in the upper Mississippi valley, if not in the entire country. His reward, until now, has been mostly good natured remarks concerning his "boundless optimism" and indulgent smiles.

F. CRANFELD.  
*Secretary.*

"Our apple and cherry trees are in full leaf yet but are beginning to turn brown and I hope will drop soon so as not to hold snow."

K. W.  
Bayfield, Nov. 19.

**41,000 FRUIT TREES****Immense Order Placed Within the Week****Probably Represents the Largest Single Order Ever Placed in the State**

D. E. Bingham returned this week from a trip to Vincennes, Ind., where he placed an order for 41,000 fruit trees for delivery at Sturgeon Bay.

Of this amount 26,000 cherry trees are for the immense new fruit plantation on the Reynolds Preserve Co.'s property which will plant 260 of the 670 acres it is proposed to put to fruit, and 15,000 trees for Bingham & Lawrence.

**FRUIT LAND BOUGHT UP.**

Bingham & Lawrence this week bought up eighty acres from the Reynolds Preserve Co. in the town of Sevastipol, comprising what was formerly the Donovan and Henry Rohde adjoining forties. The consideration is \$10,000. Messrs. Bingham & Lawrence will put the whole eighty acres to apples, making a large addition to their already extensive fruit properties.

Thomas Boyce, of Milwaukee, and other Milwaukee gentlemen, while up here last week, bought up sixty acres in the eastern part of Sturgeon Bay town which they intend to plant to fruit. Forty of the sixty acres were purchased from Geo. Klumb and twenty acres from Richard Gilbert, brother-in-law of Mr. Boyce.—Door County Democrat.

The above item reached this office from several different sources recently and we immediately sought confirmation and further particulars as it seemed almost too good and too big to be true.

The following letter, from Mr. A. L. Hatch, confirms the report in every particular:

The Reynolds Preserving Co. of this place has organized a company to develop cherry and apple orchards on a tract of 670 acres of land, three miles or more north of the city of Sturgeon Bay. The cherry trees for planting 250 acres are purchased and several car loads are now being received for spring planting. If apple trees of the right sort can be had

they will plant ten thousand or more also in the spring.

This plant will be the largest ever attempted in the state. The acreage planted next spring will take 26,000 cherry trees alone. The land is being plowed now and will be finished in a few days if the weather permits. Two hundred and fifty acres of the tract will be fitted for planting in the spring of 1912 and the balance of the tract in 1913.

The company for the development of this tract is a stock company with all stock sold and money paid in. When developed, it is expected to sell the growing orchards to actual settlers in small tracts. Besides this the Preserving Co. has another tract of land, 400 acres, that they expect to develop with another stock company on the same general plan. They have been operating a canning factory here for fifteen years, putting up millions of cans of peas. They have been investigating the cherry business for several years and feel certain that should the market ever prove slow for the fresh fruit, there is a practically unlimited market for canned cherries and at profitable prices. It is likely that our surplus crop, if we have any, would not only include the ordinary canned product, but also fancy fruit put up in glass.

Besides these enterprises Bingham & Lawrence expect to plant 10,000 or more apple trees in the spring. They have recently added a fine improved farm of 80 acres to their holdings, 60 acres of which is fall plowed ready for planting next spring.

From the foregoing and the further fact of more than one hundred individual orchards being grown near here you can readily see that Sturgeon Bay has arrived!

Yours cordially,

A. L. HATCH.

**NOT SO MANY CRANBERRIES**

I was very much pleased to receive copy of WISCONSIN HORTICULTURE and I find much of interest in it and will try to send you some extra members for the society. I fully indorse all that Dean Russell says. I have only one fault to find, on page 15 (November number) there is a piece

taken from The Shield, Barron, which is a falsehood from start to finish. I own and operate the largest and most productive cranberry marsh in Barron county at Cameron, six miles from Barron. I picked near 2,000 bushels last year and less than 300 this. Walter Case at Rice Lake picked over 400 bushels last year and 60 bushels this year. I don't know where there was picked in Barron county ten bushels outside of these two marshes. The National Fruit Exchange estimate the Wisconsin crop this year before picking time at 12,000 barrels (36,000 bushels) less than last year after a personal inspection by A. N. Chaney. Berries were all picked in September in Wisconsin this year and not a third as many injured by frost as last year.

Mr. O. G. Malde of the state experiment station, P. O. address Grand Rapids, Wis., R. F. D. 3, visited nearly every marsh of any extent in this state and will confirm all I have said and in future aid you in giving your readers reliable information on the cranberry business. I saw that same piece in some other papers and would like to know where it originated. With many wishes for your success,

Yours truly,

A. C. BENNETT.

We stand rebuked.

**SOME APPLES, BUT NOT ENOUGH**

The final apple report submitted by the Orange Judd Farmer gives the total in the United States as 24,000,000 barrels or a little less than the average of the last two or three years. Owing, however, to the uneven distribution of the crop and excessive transportation charges, prices are apt to be high in some sections. The Upper Mississippi region suffered an almost total loss owing to the severe storms of April 23 to 25, which followed an abnormally warm March. The Pacific states have a bumper crop but freight charges of \$400 per car of 600 to 800 bushels take much from the profits of the grower.

Please do not send postage stamps for membership fees if there is any possible way to avoid it.

### AN EXPLANATION

Our worthy friend D. E. Bingham, of Sturgeon Bay, sends the following in explanation, protest and self defense. We are awfully glad that Mr. Bingham has got in the way of writing for HORTICULTURE, even if it required an incorrect quotation to do it. Somehow, when Mr. Bingham talks about orchard management it seems worth while to listen.

Just a word before you begin: we are absolutely certain that Secretary Meisnest had no intention of misquoting, but a synopsis may easily leave unsaid words that may wholly change the speaker's meaning. To the Editor:

In the November issue of WISCONSIN HORTICULTURE and under the heading "Reports of Local Societies," there are some quotations from my talk at Manitowoc which need a little more light.

(1) This synopsis says, "Mr. Bingham advocated mulching as essential." Now what I did say was that either thorough cultivation or mulching was essential to success and this was with reference to old orchards where the owner did not wish to plow, that mulching would be beneficial and practically necessary to success and it should be done thoroughly to produce almost the same conditions as cultivation, giving trees a supply of plant food and aeration of feeding roots.

This can only be done by applying plenty of mulch yearly to protect feeding roots, for as mulch is applied the feeding roots come near the surface, and unless more is applied the roots dry out and the tree suffers, but by applying more each year pretty good results can be obtained, much depending, however, on amount of rain fall.

Again, about spraying, this article makes me say "begin spraying as soon as blossoms open." Now we all know we do not spray when trees are in full bloom; but rather when blossoms begin falling or have fallen, we should begin. One application being given the trees before bloom, however,

Low headed trees were also recommended, not low crowned trees.

The red apples recommended are the Snow, McIntosh, Dudley, Wealthy and Duchess for money makers.

In reference to Duchess as a money maker at \$1.50 per barrel, I claimed that many times one can make more money from Duchess at \$1.50 per barrel than from some varieties that are being planted at \$3.00 per barrel. Of course, we would have to take the figures from the orchard for a period of years and not a single year, but as we are all planting our orchards not for any single crop but for the income year after year, we must consider productiveness, hardiness of tree and average price for apples for a term of years. D. E. BINGHAM.

### THE KICKAPOO NOW ON THE MAP

The Gays Mills Fruit Farm and Nursery Co., recently incorporated with a capital of \$20,000 will plant one hundred acres of apples within the next three years. Twenty-five acres will be planted next spring.

The incorporators, John A. Hays, O. A. Sherwood and H. W. Stuckey are all of Gays Mills but the capital is largely subscribed by Milwaukee men, members of the State Horticultural Society.

The land purchased by the company is a part of the splendid ridge farm owned by John A. Hays comprising 270 acres on which is located our trial orchard and vineyard. These ridge lands on the east side of the Kickapoo valley have been pronounced the very best apple lands in Wisconsin by competent judges.

This company represents in the highest degree the kind of progress in fruit growing most earnestly to be desired in this state. The subscribers are men of modest means who have invested their money in this enterprise for the sole purpose of raising fruit and not to speculate in land nor to devise "unit" or acre schemes to sell to the unwary. Nor have the stockholders any get-rich-quick ideas about thousand dollar per acre crops but expect fair returns. We predict success for this venture.

Just east of the Hays tract lies a forty acre farm most beautifully diversified and having fully 30 acres available for planting. This has been

purchased by Mr. T. Corneliuson of Madison, who will develop it the coming season as a fruit farm.

Other companies and private deals are in prospect in the immediate vicinity of Gays Mills and we confidently expect to see five hundred acres of tree fruits planted within five years on the clay hills of the Kickapoo region. Outside capital will start the ball rolling but the "Kickapooogians" will "come to" soon and take a hand in developing their own county.

### STORAGE OF HUBBARD SQUASH

The following directions for handling and storing squash are by Prof. W. Stuart of the Vermont Agr. Exp. Sta.

The conditions tending to minimize losses in storage are stated to be:

1. The squash should be well matured before harvest.
2. They should be cut or carefully broken from the vine, leaving the stem attached to the squash.
3. If possible they should be placed in small piles to ripen and harden up for two or three days before hauling from the field.
4. They should be hauled in a spring wagon, the box of which is lined with burlap or other material, to prevent bruising.
5. The storage room should be dry and moderately warm at least for the first two weeks, to harden up the shells, after which a lower temperature, provided the room is dry, may be maintained.
6. Finally, squash from harvest to sale should be handled as one would handle eggs. Broken stems and bruised skin are sure to cause decay.

In general, Prof. Stuart concludes that "squashes properly grown and handled may be held in storage till mid-winter or later with a reasonable assurance that the moisture and decay loss will be amply covered by the increased price received."

There is an additional advantage to be considered, viz., that if the squashes are stored a saving of time may be effected and the hauling to market done at a time when farm work is less urgent.

## Local Societies

### LAKE GENEVA FLOWER SHOW

The sixth annual Chrysanthemum exhibition of the Lake Geneva Gardeners' and Foremen's Association passed into history November 7 and 8 and was a pronounced success. The quality of the exhibits exceeded by far any other year. The large blooms of mums such as Dr. Englehardt, Mrs. Weeks, Yellow Eaton, Col. Appleton, Major Bonnafon and many others were the best ever exhibited at Lake Geneva. The specimen Chrysanthemum plants were one of the chief attractions of the show. A large single variety, Catherine Livingston, a product of Lake Geneva, was shown by A. J. Smith, the plant measuring 18 feet in circumference. Other well known specimens, Golden Gate, May Foster, Miss Filkins, Cosmos, Dr. Englehardt and others were shown in splendid condition. The large groups of Chrysanthemums with palms and ferns included was a great attraction, A. J. Smith, gardener to J. J. Mitchell, winning first, Joseph Krupa, gardener to N. W. Harris, second, Axel Johnson, gardener to R. T. Crane, third. Wm. P. Longland, gardener to C. L. Hutchinson, showed two very creditable groups of Anemones and Pompons. Groups of single flowering varieties were keenly competed for with Smith and Longland carrying off the honors. A splendid specimen plant of *Ficus Parcellii* was shown by A. J. Smith, Joseph Krupa coming a close second with a perfectly grown plant of *Diffenbachia Magnifica*. The groups of foliage plants were simply perfection, the plants being well grown and exquisitely colored. Roses, Carnations, Glorie de Lorraine Begonia, Lilies and Violets were all shown in fine condition. The vegetable collection surpassed anything shown here before. The Boddington prizes were won by Robt. Sampson, first; A. J. Smith, second; Joseph Krupa, third. The Vaughan prizes for collection of vegetables were won by Joseph Krupa, first; A. J. Smith, second; Robt. Sampson, third. Mr. William Currie from Milwaukee and

Mr. Blackwood of Lake Geneva acted as judges.

The annual banquet of the society was held on the evening of November 7 at the Y. M. C. A. where 125 guests assembled for an enjoyable evening, the chief speakers being Mr. Frederic Crane, Madison, whose topic on Reminiscences was very interesting and amusing; Mrs. W. Currie spoke on Attainments of Horticulture; A. J. Smith, secretary of the society, gave an interesting history of what the society has accomplished since its organization. Mr. Frank Higgins acted as toastmaster. There is only one Frank Higgins around here. Music and singing by Mrs. Dr. Matter was simply superb and altogether another beautiful evening passed into history.

A. S.

### NOTES FROM THE OSHKOSH SOCIETY

The October meeting was held at the home of Mr. N. A. Rasmussen. One thing noticeable about the meetings held at the homes—the attendance of the ladies is much larger than when held in a hall. The serving of dainty refreshments by the host and hostess added much to the sociability of the meeting.

The November meeting was held at the city hall in connection with an illustrated lecture and demonstration in preparing spray mixtures by Prof. Milward. In spite of very unfavorable weather the attendance was fairly good and considerable interest has been awakened by the experimental work in spraying that has been carried on in this vicinity the past summer.

Mr. James Brainerd, a charter member of our society, died at his home on Merritt St., Nov. 11 at the advanced age of eighty years. Mr. Brainerd was an enthusiastic horticulturist; well informed and always willing to help his fellows over hard places.

Enthusiastic, hard working horticulturists rarely die younger.—Editor.

To the Editor:

The third number of your, or rather our paper, WISCONSIN HORTICULTURE, is before me.

I have always been deeply interested in both the state and local horticul-

tural societies and have watched the efforts to build up both and noted the clever and original ways in which the matter was placed before the public as well as the phenomenal success which rewarded these efforts. But along with this pride and satisfaction was a feeling of regret that our state society was slipping away from us—that it would soon become an association of fruit growers, professional, profound and prominent. Instead our cozy society of "people who just grow fruit," the dear common every day people whom Lincoln said "God must have loved because he made so many of them," lately began to cast about for some way in which individual members could take part and be brought to feel a "live" interest in the state society, when lo and behold, as if in answer to my thoughts I drew from its wrapper our little paper. You have sized up the situation and covered the ground exactly—as to making it one dollar—not yet as to subscriptions, patience, work and wait.

We have been accused of being just a social society and of not doing horticultural work. As to this, I will only say that this plant called sociability which we have been cultivating, has borne some beautiful blossoms of friendship, sympathy and good will.

During the illness of two of our members last spring, so great was the sympathy felt that our horticultural meetings were almost entirely suspended and following their death we find it hard to take up the work with this double sorrow in our hearts, but we are trying to revive our interest.

Hoping to assist you further,

Very respectfully,

MRS. S. L.

We publish the above extracts from a letter which has just been received with considerable hesitation, as we are not certain that it was meant for publication. It is from a lady who lives south of Ashland and north of Beloit and a member of one of our oldest local societies.

The thoughts expressed about the changed attitude of the state society are, we know, the thoughts of very many of our older members and we



want to say that no one regrets it more keenly than the ones who have in some measure been responsible for the change.

It is true that the society of today is not the society of twenty, or even ten years ago. Then it was composed of the pioneers who laid the foundation of things in the state, men and women who "just grew fruit." We of a later day need to be reminded occasionally of the patience and persistence of those early day members who bravely met and overcame difficulties greater than any we now have. For be it known to all men, the work we are now doing, the big orchards, the berry fields and all else we have and expect to have, were an impossibility without a sound foundation to build upon and this foundation was laid by the state society in its earlier days.

Then the membership moved up and down between the 100 and 200 mark; the annual meetings were *cozy* affairs and all was well. The change began when a lusty youth called Commercial Horticulture stepped in and demanded help; insisted on trial orchards; demonstration plats; help in raising fruit for market. The call was heeded for this was the logical outcome. Of what was all this pioneer work if not to pave the way for bigger things?

So it has come about; we must acknowledge that the funds and policy of the State Horticultural Society are devoted very largely to commercial horticulture. And it must of necessity be so if we are to continue to enjoy the bounty of the state.

The taxpayers of Wisconsin have a right to demand some tangible returns for their investment of eight thousand dollars a year in our Society, a right to demand that we *do* something. And we *are* doing things! The rapid advance of fruit raising in Wisconsin during the past ten years is due in a very large measure to the efforts, past and present, of this society, and every member may justly feel proud of being a part of it. That the society has changed in some respects should be no cause for regret but rather for felicitation.

We are bigger, better, stronger and

withal a power in the land. Nor is there any need that the bigger things swallow the lesser ones. There is still abundant room and need for the amateur, still need for the fraternal and social spirit.

Our society should not be considered as a corporate body, but as a brotherhood; its affairs must be controlled by the practical horticulturist of the state, either amateur or professional. We must all pull together for the common good and as long as we do that we will thrive. The stronger this fraternal feeling the stronger we will be.

If this letter inspires others like it the editor will feel that our paper is coming to be what it should be, a common meeting ground for all.

#### AMONG OURSELVES

To the Editor of WISCONSIN HORTICULTURE:

I agree with you about those blessed rabbits. Yes, I agree with you that they ought to be exterminated. I planted a lot of Delicious apples one year old and the way those rabbits went for them was something awful. I tried to poison them, but of course they would not eat poison; I spoke to one of my farmer friends here about the rabbit pest and he said they are bad and no mistake but set traps for them in their runways and supply the boys with guns and plenty of bullets and it may do some good. I did not know that they were protected by law. Why not also have a law to protect burglars and thieves; it would be about the same.

Yes, we are planting some trees on Washington Island, mostly cherries, so in a few years from now you may probably see cargoes of cherries go away from here as we are now shipping cargoes of potatoes averaging from 20,000 to 40,000 bushels per year. You see we have no railroad here so everything goes by cargoes or half or even quarter cargoes according to the supply, and I suppose it will be the same when we have cherries and apples to ship.

I see that you do not favor the Home Nursery Co., of Bloomington, Ill. Neither do I. I had the good luck when those smooth-tongued agents of

the Home Nursery Co. were here to be away from home or I suppose I would have been roped in, too. But they did a good business here, selling all the way from fifty to a thousand trees to the different farmers here at 55 cents each and half of the fourth year's crop. When a man only wanted a dozen or so they would charge him one dollar apiece and would tell him they were doing him a special favor when they sold so small a quantity. The variety sold was all supposed to be Ostheim, the only kind to plant in this locality they said. The promise of putting up a canning factory was largely used to induce the farmers to set out as many acres as they possibly could or else they could not have the canning factory. See! It will not be long now before those special Russian Ostheims will commence to bear and then we will have a chance to see what they are like. One man who had bought 500 Ostheims of those fellows and who had a canning factory in his head said to me one day when we met that I would set up there with my scrub trees and starve while he with his pure stock from the Home Nursery Co. would reap a fortune. Well, we will see.

Hoping success to WISCONSIN HORTICULTURE and that it may grow larger every year and that those pesky rabbits will pretty near all get killed, I remain yours truly,

CHRISTIAN SAABYE.

Detroit Harbor, Wis.

(Washington Island.)

Word comes from Washburn of the organization of a local horticultural society of 100 members, as a start. The following are officers: President, Wm. Daly; vice-president, F. J. Meehan; secretary, George F. Morgan; treasurer, O. M. Olson.

You are the loser,—if you do not attend the Convention. Remember the dates, January 10-12. And keep in mind that the only printed announcement appears in WISCONSIN HORTICULTURE. Old members who have been accustomed to receive separate programs must keep this in mind.

## A BRIEF HISTORY OF THE LAKE GENEVA GARDENERS AND FOREMEN'S ASSOCIATION

By A. J. SMITH, SECRETARY.

Nearly seven years ago we organized a society for the advancement of horticulture and floriculture with some misgivings as to our success, but with a determination to win out if possible. With the permission and co-operation of our employers, the moral support and good will of the people of Lake Geneva we have accomplished a great deal more than we anticipated. We are just passing our sixth Chrysanthemum Exhibition and every one of these shows has been a success both in patronage, appreciation and financially. The friendly rivalry and competition amongst the members grows keener every year.

The purpose for which this society was organized was strictly educational and the seven years existence of the society shows very plainly at our exhibitions the value of the work. We have doubled our entries and show a better grade of exhibits. It is not the question now, as it used to be, can we fill the hall? The question has reversed itself, can we get into the hall after the exhibits are staged. If the purchase of the Whiting house property had not passed into history so suddenly it is quite possible our exhibitions at this time would have been presented to you in a building suitable for the occasion.

Our society has a roll of 48 active members, 37 honorary members and 31 associate members, making a total of 116 members. The six exhibitions given by our society to the people of Lake Geneva have cost \$3,500, while the receipts amounted to \$4,700, leaving a balance of \$1,200 for the six exhibitions.

Our society is a branch of the State Horticultural Society which has a membership of 1,400. We are represented by two of our members on the Executive Board.

In the past four years we have distributed over two thousand plants to the school children with the object of creating a love for flowers. We have paid to the children over \$300 in premiums, thus adding a more lively interest in the growing of the plants.

We are satisfied with the experiment and hope to continue.

I wish to say on behalf of our society that we thank you for your presence here tonight. We appreciate your good will and support, which you have always cheerfully given us and in conclusion will say while the shows we have given you in the past have been commendable we hope in the future under more favorable accommodations to present to you a chrysanthemum exhibition second to none.

## IS THE RED APPLE ENTITLED TO THE PREFERENCE COMMONLY GIVEN IT?

The notion has become so prevalent that the red apple is so much more in demand by consumers than other kinds, that some growers, as well as as nurserymen, do not care to consider any variety not known to be adorned with this primitive color.

The real fact is, beauty helps to sell an apple and is an essential thing in securing high prices, but beauty is not the only thing requisite, and the "red" apple is not always beautiful, and other apples may have adequate beauty to win and hold though less "stunning" in appearance.

Apple beauty is something more than color just as beauty in a woman is something besides complexion.

The Ben Davis is a red apple but not beautiful and this season sold at a little more than half the price of varieties not red, while the Wolf River from the "Far West," brought fancy prices, though only slightly colored, because it made a beautiful appearance, and its poor quality unknown.

Grimes Golden is usually a beautiful apple, because symmetrical, smooth, waxy and brilliant and if its quality was unknown would sell as well as any unknown red apple of the same size. The Maiden Blush, McMahan (white), Grimes Golden, Yellow Bellflower and Newtown Pippin will compare favorably in their seasons, with any red apples. The modern method of marking all packages with the name of the variety enables buyers to quickly become acquainted with varieties so that an apple must either be choice for pies as the Maiden Blush, McMahan and Bellflower or for dessert as the Jonathan

and Grimes Golden. In the future it will not make any difference whether an apple belongs to the "blonde" or "brunette" type, but should be beautiful and fit for pies "like mother used to make" or choice enough to serve your rich relative whom you expect will remember you in his will.

G. H. TOWNSEND.

Who says Wisconsin is not a fruit state? Forty-one thousand trees to be planted in one county next spring in the northeast corner of the state and one hundred thousand more to follow; one hundred and forty acres of apples in the extreme southwestern part; one hundred and thirty-five acres by one man way up at the tip top point and at least one thousand acres in small lots is surely going some.

You people of little faith; rainbow chasers with little unit shares of "volcanic ashes" in Oregon and elsewhere; state officials and all others who enjoy the bounty of the state and invest your money elsewhere; please step aside and let the procession go by,—or better still step in the ranks and be counted in the years to come among the goodly numbers that helped put Wisconsin on the map as a fruit state. Who dared say, twenty-five years ago that Wisconsin would rank *first* of all the states in the production of butter and cheese? Who dares say that Wisconsin will not rank first in fruit production? Is there one amongst us, one with the spirit of prophecy,—let him speak.

To those who have kept the faith, who have believed when belief was heresy, who have borne with patience the carping criticism of the unbelievers we extend congratulations. Wisconsin has arrived.

## WE ARE INDEPENDENT

Nursery sharks, western land exploiters and other fakers please take notice. This paper is absolutely independent of any "interests," financial, political or otherwise and we propose to handle your schemes barehanded. We are for Wisconsin first, last and all the time and we do not propose to stop short of our ambition, clean business methods in horticulture in this state.

# Wisconsin Horticulture

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FREDERIC CRANFIELD, Editor

Secretary W. S. H. S., Madison, Wis.

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Remit to Secretary W. S. H. S.  
Madison, Wis.

No arrests yet.

Invite your friends and neighbors to attend the Convention.

Five hundred extra copies of this number for free distribution. First come, first served.

We also have the Spaulding Nursery Company, of Bloomington, Ill., on our list of "undesirable citizens."

We also have judges, lawyers, doctors, state officials, legislators, etc., among our members, but they are well behaved as a rule.

How many know that we number two real, live mayors in list of members? Our worthy treasurer, L. G. Kellogg, is mayor of Ripon and F. C. Edward rules with a gentle hand the citizens of Ft. Atkinson.

We ask again for names of people in your neighborhood who are not members of our society. In response to requests in October and November issues we have received two lists, 16 names in all. How many will respond this month.

We have no quarrel with the dairyman, we are brothers, but in spite of this intimate relation, if he continues in the future to belittle the fruit growing business in this state as in the past, we intend to swat him one on the jaw. We now have a suitable weapon.

If you fail to receive WISCONSIN HORTICULTURE promptly don't blame this office,—until you have looked at your last number. If you find a blue pencil mark in the Delinquent Square remember that your membership has expired and that your name has been dropped from the list. We need the money.

D. E. Bingham has been reappointed special horticultural lecturer on the Farm Institute force and will begin at Rice Lake December 6. Mr. Bingham talks only horticulture and is the only special worker on the institute force. One-half his salary and expenses is paid by the State Horticultural Society.

Hand memberships to Mr. Bingham.

The Peninsula Fruit Farm, a Milwaukee corporation, capital \$30,000, will plant 60 acres of cherries on lands near the city of Sturgeon Bay.

The company is composed of Mil-

waukee men. Thos. Boyce, president; R. L. Cooley, vice-president; and W. C. Sieker, secretary and treasurer.

## FOR MEMBERS ONLY

Members of the State Horticultural Society must distinctly understand that the future of this paper rests entirely with them. It may or may not be continued. As stated in the first number it is an experiment. It is not designed to be a scientific journal nor one that will take the place of regular agricultural journals but rather a common meeting ground for members where they may express their opinions freely; a family paper which may bring together more closely our family of 1500. If then the paper is to be a success members must contribute to its columns. Write for the paper if you want it continued.

Secondly the question of financial support must be considered. It begins to appear very doubtful if the fees from annual membership and advertisements will pay the bills. If the membership increases to 2000 or 2500 we can raise our advertising rates and also get more business. Advertisers want circulation.

If, therefore, you want the paper continued get more members. It may be considered best to raise the fee next year. In the meantime fifty cents goes.

Irving C. Smith of Ashland,—everybody knows Irving,—was reared at Green Bay as a gardener, then was lured away to teach in Northland College at Ashland but the sight of so much rich, red loam with nothing but hay and grass and fodder of all kinds growing on it while Ashland people were starving for vegetables was too much of a temptation, so last spring he bought some land and drifted easily back to his old habits.

How well he has succeeded is shown in part by the pictures in this number. We could attest still further as to his success in the mere matter of dollars and cents but that is the lesser part after all. Brother Smith and his good wife are engaged at once in two noble occupations, the raising of boys and vegetables and making a grand success of both.

## Questions and Answers

*Question.*—1. Assuming that the land is in proper state to grow a crop of potatoes, may I plant a crop of potatoes on the ground the same year that I plant fruit trees?

*Answer.*—Potatoes may be planted on a part of the land, leaving four or five feet on each side of the tree rows. This strip must be kept cultivated and free from weeds and grass during the entire season. Five rows of potatoes may easily be planted in each space between tree rows. If this cropping plan is kept up for four or five years the orchard should be manured once or twice unless the soil is now very rich. You will remember that you are raising a crop of trees, that is your main purpose not to raise potatoes or other crops.

*Question.*—2. What varieties of apples should be planted taking into account hardiness and commercial value?

*Answer.*—We recommend fall apples for planting in this state as these find the best markets. Duchess, Wealthy and McMahan are probably the three best money makers. To these might be added Fameuse, McIntosh and some others.

*Question.*—3. Where can the trees be best procured and at about what price?

*Answer.*—We have several reliable nurserymen in Wisconsin who will furnish trees. We are unable to give an exact price at which trees can be purchased as apple trees are rather scarce this season. I think, however, that you can get good trees at about \$35.00 per hundred.

*Question.*—4. At what distance apart should the trees be planted, and do you advise the quincunx form of arrangement.

*Answer.*—There is a great deal of discussion among fruit men as to the best distance for apple trees but most of them agree upon 24x24 feet which gives about 75 trees to the acre. We do not advise the quincunx form of planting as it does not permit of economical cultivation. Plant in squares.

*Question.*—5. As the tract is exposed to the north and west winds, would you recommend planting a wind-break of some variety of quick growing trees and if so what varieties of trees would you advise and how close should they be planted?

*Answer.*—Do not under any circumstances plant a wind-break as trees need a free circulation of air. Orchards shut in by wind-breaks are invariably exposed to attacks of insects and disease.

My orchard blossomed heavily this spring but it developed later when the apples were small that every one was wormy while most of them fell; those that remained are small, wormy and disfigured. The other day I examined the trees and discovered every trunk and the larger limbs bored just full of holes and what is queer these holes are in line as if some one had taken a nail and driven in and withdrawn again; it also seems as if there are worms in them. Having no idea what it might be or what could be done to prevent damage and when to spray of what solution to use, if there is anything you could do and advise me how to make an orchard profitable by proper care I shall be very thankful indeed.

Yours faithfully, E. A. S.

Your trouble is a very common one but one that is easily controlled. Wormy apples are caused by the codling moth, a night-flying insect which lays eggs in the apples which later hatch into the well known apple worm. The trouble may be prevented by timely spraying with Paris Green in water or some other arsenical poison. Full directions are given in our Bulletin No. 19, a copy of which may be had on application. We are inclined to think that the holes in the trunk of the tree which you mention have no connection with the wormy apples and suspect these are made by woodpeckers or sap-suckers as these birds not infrequently hammer holes in apple trees for the purpose of feeding on bark lice and other similar insects. There is no remedy nor in fact is any really needed as little damage results from this.

You say that the apples are also

deformed and this I suspect is caused by apple scab or other fungus diseases which may also be readily controlled by spraying. By reading carefully bulletin No. 19 you will find that both troubles may be controlled by one operation.

### ONE YEAR VS. TWO YEAR CHERRY TREES

For the beginner in cherry culture there may be advantages in a 2-year cherry as the top is formed and he is not so apt to make mistakes that will cause trouble later on as in the case with a 1-year cherry as the top on 1-year needs different pruning than on 2-year. The root system on 1-year beats the 2-year. The tree is shorter from bud to end of roots, making easier planting but top is lower and needs more careful handling, so the good points on each about balance. If price is the same then there isn't much choice, and usually there isn't much difference in price. Either can be bought for \$25.00 to \$30.00 per hundred delivered to the farmer's home in a No. 1 condition in 100 lots. For the large orchard, for convenience in handling, etc., the 1-year cherry is hard to beat if one knows how much to prune off when planting and knows when to stop. The cherry should be cut back very severely, say three-fourths of the top should be removed in a systematic manner.

D. E. B.

I notice in the last number of WISCONSIN HORTICULTURE that a member asks if anyone has had trouble with English sparrows eating plum buds. Several years ago I wrote you about this matter and reported that there was trouble from this source, especially when trees are near a hedge. I have had buds taken for several years, mostly from upper part of tree. Have sprayed a few times with Paris Green. It did not poison any sparrows because they did not eat any buds because of color of buds after spraying, thus this prevented further loss.

H. E.

Oconomowoc, Wis.

To invite your neighbor to attend the Convention is your privilege and your duty.



**A CITY MAN ON A SMALL FRUIT FARM**

G. W. REIGLE, MADISON, WIS.

This theme in all of its varied aspects is decidedly common and vitally important. It is so common that when a speaker arises to address an audience on the general subject of farm lands in specific outline he realizes that much is expected of him and that the multitude remain to listen through cultivated politeness only. Something novel is wanted. Some new discovery is looked for by which honest labor with one's hand and brain may be reduced to an infinitesimal quantity. It might be said in passing that the trick of deceiving dame nature whereby she is forced to bestow generous returns without labor and compensating values is yet to be discovered.

I feel, therefore, that before I finish this tedious history that some of you will have urgent business outside this hall while those who remain will liken the speaker to two musical instruments mentioned in holy writ, viz.: "Though I have the tongues of men and of angels and have not *ideas* I am but sounding brass and a clanging cymbal."

For many generations there has been a movement from the land into the cities and a counter current of humanity from the cities to the farms. During the past few years, however, the rush for farm lands has been greatly augmented by the very

high prices of farm products and by the oft-times selfish activity of none too honest real estate agencies, reporting exceptional yields which might not recur in a lifetime, or publishing statements and data which an expert only can attain has already given rise to discontent whereby comfortable homes have been sacrificed, snug little bank accounts have been swallowed up in the vortex of rubber plantations, banana groves, Florida and Saskatchewan cheap lands and the glitter of the golden mountain sides and green valleys of the Pacific border.

Inoculating any man or woman with the poison of such discontent is guilty of the blackest crime. There are hundreds of cases throughout our fair land where this accusation needs no qualification whatever. There is, however, a *bona fide* opportunity awaiting every man whose wages range between \$40 and \$70 per month. He must be able to think for himself and be able to plan and bring to a successful termination minor undertakings; but he who cannot work unless he is stationed at the tail-end of a threshing machine where he must work or be buried would better stick to his mule-driving at his \$10 a week.

The city man from clerkships and other occupations where clean hands and clothing are requirements, will not take kindly to soiled hands, dirty shoes, and spotted linen. The odors

of the cow, the horse and the barnyard will offend his delicate olfactory organs.

The wife on the farm cannot command an army of deliverymen to lay at her feet in the kitchen all the necessities of living.

But the children—God bless their little hearts—are just where the supreme intelligence intended they should be born and reared. The farm surroundings are their native element. The pure air and sunshine, the blue sky, the babbling brook, the birds, the growing vegetation and the every-day home duties contribute wonderfully towards developing that mental, moral and physical fiber so much desired in budding manhood and womanhood.

No longer may Mr. Newfarms arise at 7 a. m. No longer eight hours a day. Now eighteen hours will be the limit while scalding sun is hazing him. The hail may pelt him and the bugs will surely bite him and his neighbors will wish to borrow his tooth brush and his safety razor.

Remember that this is Mr. Newfarms' first year. Nothing comes his way except an enormous harvest of disappointments. In fact he is simply reaping the harvest of ignorance and inexperience which every *freshman* must endure or quit the game. It is nothing but hard work six days every week and continuous labor on the seventh.

His club life for the present must be suspended. The church will be remote, the public school will be small and inferior judged by present-day standards.

Mr. Newfarms gives the orders now and his help must obey. This situation is agreeable, but strange to him. He will now learn independence of thought and action. His mistakes, by thoughtful consideration, may be transformed into partial success; daily contact with plant life will reveal many secrets of nature whose vital forces he will learn to control, resulting in health, wealth and happiness to himself and his family.

There is one commendable virtue Mr. Newfarms possesses which makes his shine like a morning glory in comparison to old Buff Whiskers who lives just over the wire fence on a 640



Some potatoes raised by Irving Smith of Ashland. Weight 33 lbs. Irving will send a picture of some large ones some time

acre farm. Mr. Newfarms can tell you to a farthing whether his half acre of strawberries were more or less profitable this year than last year. He can tell you whether the currants were marketed at a profit or loss and how much. Now if you ply old Buff Whiskers with a series of like questions for exact information relative to the farm crops he is growing, his stereotyped reply is apt to be that "I reckon I am a little somethin' ahead every year for I have lived right here nigh unto forty year and I have about forty dollars in the savin' bank."

A thirty acre farm having ten acres of woodland situated near his home city on a main highway would make a large fruit farm and an ideal home for our fruit grower from the city. To learn intensive fruit growing on this farm; to stand out in the open without dodging or trying to hide behind his own monumental ignorance when the grape and canister of nitrates and phosphates and Bordeaux and lime-sulphurs are shot at him by the professors of the experiment stations will require all the nerve our city man can assemble.

And should he escape death at the hands of the bloodthirsty professors and get away by sailing out to sea, Mr. Newfarms will there be doomed to shipwreck and a watery grave should he allow his life boat to be caught in the doldrums of dubious dalliance.

Seriously, is a failure under the blue dome of heaven more humiliating than a failure in the midst of your unsympathetic rivals who have long been conspiring against you?

Mr. Newfarms should begin on a moderate scale and increase his plantings as he discovers on what fruit his home market is short.

Fifty trees each of apple, plum and cherry will make a respectable beginning in trees. These may be supplemented by planting three hundred hardy grape vines, one hundred bushes of currants, one hundred each of red raspberries and black raspberries, and fifty Downing gooseberries. Plant one-half acre of strawberries and one-eighth of an acre each of rhubarb and asparagus.

For advice in regard to the planting and the culture of this garden I will refer you respectfully to the distinguished gentlemen who have a prominent part in this program, to the bulletins of the United States Dept. of Agriculture, to the bulletins published by our own experiment station and the experiment stations of other states. I must not omit the annual report of the Wisconsin State Horticultural Society and the free bulletins issued by the same society. In addition to all these aids the secretary of the society, F. Cranefield, Madison, Wisconsin, conducts a free correspondence course in relation to all questions horticultural.

A new periodical has now been launched by the W. S. H. S. in which the very latest discoveries in the great field of horticulture will be disseminated.

Where circumstances will permit it is advisable to plant in long rows so that a horse may be used in cultivation. Mr. Newfarms should provide for family use two good cows, a pig and a flock of hens so that all waste about the farm may be utilized.

An aggressive colony of black bees might be added. These will at odd spells help Mr. Newfarms to forget some of his other troubles.

There are only two fundamental truths or principles underlying this business:

1. Production at the lowest possible cost.

2. Distribution to the consumer at the highest market price.

Quality and appearance of fruit and package will bring the highest market price. My own experience is that it is easier to produce A-1 fruit than it is to collect from grocer or consumer the maximum price. When a man's dignity prevents his selling a private customer a dozen of the freshest eggs for twenty-four cents while his grocer will allow him only eighteen cents in trade you see we have an exact measure of that man's dignity. It is worth just thirty-three and one-third cents on every dollar. The idea then to strive for is the largest crop possible without allowing the quality to fall below the best. Having the best in the market you will command maximum prices.

In summing the situation I will offer the following advice:

1. In middle life, without capital, do not leave a good city business for an uncertainty on any farm.

2. If you feel you are lacking in initiative do not leave a salaried position for the farm. Initiative means the ability to do the right thing at the right time without being told.

a. Let the sissy sizzle in silence in the sickly city.

3. My city neighbor, if you have brains, the fruit farm offers you the grandest opportunity of your life to exercise them in bringing to you commensurate returns.

*Continued on Page 12.*



Not dead beets but rutabagas from the red clay of Ashland. Either tremendous turnips or a small wheelbarrow. Ask Irving Smith

# Wisconsin State Horticultural Society

## ANNUAL CONVENTION

TO BE HELD AT

**Madison, January 10, 11 and 12 1911**

The Convention will be held at the Madison Free Library, Cor. Dayton and Carroll Sts., one block from the Capitol Square.

The Avenue Hotel will be headquarters for officers, members and visiting delegates. Rates \$2 and \$2.50 per day, American plan.

### PROVISIONAL PROGRAM.

SUBJECT TO CHANGE IN JANUARY ISSUE.

Opening Session, Tuesday Afternoon, January 10, 2:00 O'clock.

A Word of Welcome, ..... Hon. J. C. Schubert  
Mayor of Madison

Greeting from the College of Agriculture, U. of W. .... H. L. Russell  
Dean of the College

Introduction of Delegates from Iowa, Illinois, Minnesota and Michigan.

### SMALL FRUIT SESSION.

Lessons Learned in a Dry Season, ..... E. A. Richardson, Sparta  
Fruit Raising in Jackson County, ..... E. W. Sullivan, Alma Center  
Frost, Drought,—and Strawberries, ..... H. B. Blackman, Richland Center

### QUESTION BOX.

TUESDAY EVENING, 8:00 O'CLOCK.

Some Things Fruit Growers Ought to Know About Insects, (Illustrated)  
..... J. G. Sanders  
Prof. of Entomology, University of Wisconsin

WEDNESDAY FORENOON, 9:00 O'CLOCK.

### Business Session

President's Address.

Report of Secretary.

Report of Treasurer.

Report of Chairman Trial Orchard Committee.

Reports from delegates to other state societies. (Verbal or written reports limited to five minutes each.)

Reports of delegates from Local Societies:

Algoma, Bayfield, Lake Geneva, Manitowoc, Omro, Oshkosh, Poysippi,

Rushford, Sheboygan, Madison. (Two minute reports.)

Election of Officers and Members of Executive Committee.

Ways and Means to Improve our Society. Two minute talks by members.

Varieties of Apples for Commercial Orchards:

For the Twenty-Five Acre Orchard, ..... D. E. Bingham

For the Ten Acre Orchard, ..... L. G. Kellogg

For the Twenty-Five Acre Orchard, ..... D. E. Bingham

For the Fifty Acre Orchard, ..... D. E. Bingham

For the One Hundred Acre Orchard, ..... R. J. Coe

Only lists and brief comments to be submitted; time two minutes each, as many questions may be asked as desired.

The Lure of the Land, ..... Dr. E. W. Walker, Delevan

*Continued from Page 11.*

4. There is easy money raising good fruit, affording a delightful occupation, a table with most wholesome food and brings you in personal contact with the best families.

5. Many a laborer in factories, stores and mills has prolonged his life ten or fifteen years by moving onto the land where the virtues of out-door exercise have wrought their miracle of healing.

6. We need more horticulturists in the field and fewer make-believe horticulturists in real estate offices.

7. Horticulture is the most healthful, the most useful, and the most noble employment of man.

Read by W. G. Reigle at Summer Meeting, Oconomowoc, Wis., August 17, 1910.

Send names of people who ought to be members and we will send each a copy of **WISCONSIN HORTICULTURE**.

## Vincennes Nurseries

Vincennes, Indiana

**W. C. REED,**  
**PROPRIETOR**

**Cherry Trees by the  
100 or 100000**

The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited

## WEDNESDAY AFTERNOON, 2:00 O'CLOCK.

Some Soil Moisture Problems .....Prof. F. H. King  
Apple Tree Canker

A Discussion opened by L. R. Jones, Prof. of Plant Pathology, U. of W.  
Self Boiled Lime Sulphur Wash

Discussion opened by Mr. G. W. Keitt, Dept. Plant Pathology, U. of W.  
Experiences with Lime Sulphur in 1910.

A general Discussion led by the President

Minnesota Orchards .....Prof. A. H. Kohler  
The Rabbit Problem

Discussion, opened by C. L. Richardson

## QUESTION BOX

## WEDNESDAY EVENING, 8:00 O'CLOCK.

Some Choice Music

Program by the Horticultural Department of the University of Wisconsin  
(Perhaps Some More Music)

## THURSDAY FORENOON, 9:00 O'CLOCK.

Grapes in New York .....Rev. C. Knight, Baraboo  
The Cabbage Raising Industry in Southeastern Wisconsin.....

.....W. J. Moyle, Union Grove  
GARDENS—Small Ones

A Garden Fifty by Ninety Feet....Mrs. W. H. Richardson, Wauwatosa  
Possibilities on One-Eighth Acre—(75 feet square).....

.....Irving Smith, Ashland

## PLANTING AN ORCHARD

The A B C of Starting an Orchard

(1) Selection of Site

(2) Preparation of the Ground

(3) Best Size (age) of Trees, Apple, Cherry

(4) Laying out the Orchard

(5) Details of Planting a Tree (Illustrated)

(6) Pruning or Cutting Back Roots and Tops—(first-class cherry and  
apple trees will be used for demonstrations)

(7) Care of the Orchard the First Season—when to cultivate, best tools  
to use, crops if any, etc.

Discussion opened by R. J. Coe. D. E. Bingham, L. G. Kellogg, J. S.  
Palmer and other expert orchardists will participate.

Thousands of fruit trees will be planted next spring by beginners. If  
there are any who want to know the very best way to start let them come  
and ask questions. The simple facts will be explained by the best orchardists  
in the state under direction of Mr. Coe.

## QUESTION BOX

## THURSDAY AFTERNOON, 2:00 O'CLOCK.

## MARKET GARDENING

Hotbeds and Cold Frames .....J. W. Roe, Oshkosh

Sweet Corn .....Wm. Nelson, Oshkosh

Onions .....H. C. Christensen, Oshkosh

School Grounds .....Arrangements not completed but at least two  
papers will be given on this subject.

# JEWELL MINNESOTA GROWN Nursery Stock

Complete assortment of Fruit  
and Ornamental stock in all  
varieties suited to northern cul-  
ture. A specialty of Hardy  
Shade Trees, Windbreak Stock,  
Evergreens (Coniferous), Decid-  
uous Shrubs, Apples and Na-  
tive Plums.

## THE JEWELL NURSERY CO. LAKE CITY, MINN.

1500 Acres

Established 1868

## FIRST CLASS NURSERY STOCK

### IN GREAT VARIETY

Consisting of

## FRUIT, SHADE AND ORNA- MENTAL TREES

Strawberries, Raspberries, Black-  
berries, Currants, Gooseberries, Grape  
Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs,  
Vines and Perennials. Roses Ever-  
greens etc.

If you would like to see a *really*  
*good Catalogue* we would be glad  
to send you ours. It has more than  
fifty pages and describes every-  
thing in the plainest language with-  
out any extravagant or overdrawn  
descriptions.

The Coe, Converse & Edwards Co.

FORT ATKINSON,

WISCONSIN

Wisconsin's Largest Nursery



# PREMIUM LIST

OF THE

## Wisconsin State Horticultural Society

The Following Premiums are Offered for Exhibits of  
Fruit at the Annual Convention

Madison, January 10, 11 and 12, 1911

	1st. Pre.	2nd. Pre.	3rd. Pre.	4th. Pre.
1. Best collection of apples, not less than 15 varieties .....	\$10 00	\$5 00	\$3 00	\$2 00
2. Best 5 plates (5 varieties) commercial apples for Wisconsin .....	5 00	3 00	2 00	
3. Best Plate Avista .....	1 00	75	50	
4. Best Plate Baldwin .....	1 00	75	50	
5. Best Plate Ben Davis .....	1 00	75	50	
6. Best Plate Dudley .....	1 00	75	50	
7. Best Plate Eureka .....	1 00	75	50	
8. Best Plate Fall Orange .....	1 00	75	50	
9. Best Plate Fameuse .....	1 00	75	50	
10. Best Plate Gano .....	1 00	75	50	
11. Best Plate Gem .....	1 00	75	50	
12. Best Plate Gideon .....	1 00	75	50	
13. Best Plate Golden Russet .....	1 00	75	50	
14. Best Plate Hibernial .....	1 00	75	50	
15. Best Plate Longfield .....	1 00	75	50	
16. Best Plate Malinda .....	1 00	75	50	
17. Best Plate Mann .....	1 00	75	50	
18. Best Plate McIntosh .....	1 00	75	50	
19. Best Plate McMahan .....	1 00	75	50	
20. Best Plate Milwaukee .....	1 00	75	50	
21. Best Plate Newell .....	1 00	75	50	
22. Best Plate Northern Spy .....	1 00	75	50	
23. Best Plate Northwestern Greening ..	1 00	75	50	
24. Best Plate Patten .....	1 00	75	50	
25. Best Plate Pawaukee .....	1 00	75	50	
26. Best Plate Plum Cider .....	1 00	75	50	
27. Best Plate Seek-no-Further .....	1 00	75	50	
28. Best Plate Scott Winter .....	1 00	75	50	
29. Best Plate Sutton Beauty .....	1 00	75	50	
30. Best Plate Spitzenberg .....	1 00	75	50	
31. Best Plate Tolman .....	1 00	75	50	
32. Best Plate Twenty Ounce .....	1 00	75	50	
33. Best Plate Utter .....	1 00	75	50	
34. Best Plate Wagner .....	1 00	75	50	
35. Best Plate Walbridge .....	1 00	75	50	
36. Best Plate Wealthy .....	1 00	75	50	
37. Best Plate Windsor .....	1 00	75	50	
38. Best Plate Wolf River .....	1 00	75	50	
39. Best Plate York Imperial .....	1 00	75	50	
40. Best peck of each of following varieties: Dudley, Fameuse, Gem, Golden Russet, McIntosh, McMahan, N. W. Greening, Tolman, Wealthy, Windsor and Wolf River .....	2 00	1 00	75	
41. Best Exhibit Pears .....	1 00	75	50	
42. Best Exhibit Crabs .....	1 00	75	50	
43. Best Exhibit Grapes .....	1 00	75	50	
44. Best Plate Seedling Apples .....	2 00			

### Wisconsin Grown Apple Trees

For planting commercial orchards. Begin your orchard on modern scientific and proved business lines and get success. Adopt the western irrigated orchard policy of planting one year top trees and fill Wisconsin markets with Wisconsin grown apples. Present Wisconsin orchards started with large 5 to 7 foot three year old trees ought to be all the proof needed that this out of date beginning means failure.

We are now ready to book your order for delivery fall 1911 and spring 1912, with one year top trees, both budded and grafted. If interested send for particulars that may save you a large financial loss.

**HENRY LAKE SONS COMPANY,**  
BLACK RIVER FALLS, WIS.

### NOT THE BIGGEST

### NURSERY PERHAPS

### BUT WE ARE DOING THE BIGGEST BUSINESS

We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

Attractive prices will be made to Market Gardeners and other large buyers of Nursery Stock.

#### Our Catalog is an A B C Book

in its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY**  
**Wauwatosa, Wisconsin**

Send For **PANSY GUIDE AND CATALOG**  
... Our ...  
of Flower Seeds and Plants  
**FREE TO ANY ADDRESS**  
**WILLIAM TOOLE & SONS**  
**PANSY HEIGHTS, BARABOO, WIS.**

## RULES OF ENTRY.

1. All entries must be filed with the secretary before 5 P. M., Tuesday, January 10.
2. Fruit must be arranged ready for judges by 9 A. M., Wednesday, January 11.
3. Four apples constitute a plate, no more, no less.
4. Separate samples must be furnished for each entry, except for No. 1, which may include all entries.
5. Competition open to all residents of Wisconsin, but premiums paid only to members. Successful exhibitors, if not members, must forward fee for membership before receiving check for premium; fee for annual membership, fifty cents.

Members or others unable to attend the meeting may send fruit to the secretary, who will make entries and place fruit on exhibition. Transportation charges must be prepaid.

All entries must be made on regular entry blanks which will be furnished by the secretary on application.

For further information address:

F. CRANFIELD, *Secretary W. S. H. S.*  
Madison, Wisconsin.

## STUDENTS JUDGING CONTEST.

Twenty dollars in prizes will be awarded to students in the long and middle courses, Horticultural Department, College of Agriculture, for the best scores in identifying and judging varieties of fruit on exhibit.

Under rules prepared by Prof. J. G. Moore.

Final awards to be decided by a judge appointed by the president.

# Door County Lands

## ARE THE BEST IN THE STATE OF WISCONSIN

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

**DOOR COUNTY LAND CO.,**  
**STURGEON BAY, WIS.**

# CHERRY TREES

## A PLEASED CUSTOMER

Green Bay, Wis., Aug. 17th, 1910

Wisconsin Nurseries:

Gentlemen:—In spite of the very dry summer you no doubt will be surprised to learn that out of the 325 cherry trees you sent me, we lost only 15. Those living have made a growth of from 12 to 14 inches.

Yours truly,  
W. D. COOKE

These trees cost Mr. Cooke, 5 to 6 ft. 20 cents, 4 to 5 ft. 15 cents. Early Richmond and Montmorency.

We are going to do better by our customers for spring of 1911, and furnish them with 5 to 6 ft. trees at 18 cents, 4 to 5 ft. at 14 cents, 3 to 4 ft. at 10 cents.

These 10 cent trees are big value for the money and we prefer them personally for our own planting to the larger trees as they transplant with more certainty.

## PLACE YOUR ORDER TODAY

for next spring delivery for 100, 1000 or 10,000 trees and get started right on the royal road to cherrydom.

**Wisconsin, Nurseries, Union Grove, Wisconsin**

## Forest Hill Nursery

George Rentschler, Proprietor

Trees and shrubs for street and lawn. Bulbs and hardy garden plants. A full line of fruit trees, bush fruit and strawberry plants

Madison - Wisconsin

## FORTY - TWO YEARS

## The Jewell Nursery Co.

Hardy Fruit and Ornamental  
Trees, Shrubs and Plants

Lake City, - Minnesota

FIFTEEN HUNDRED ACRES

One session of the Convention saved me Five Hundred Dollars.

I. G. M.

This was the 1909 Convention. The 1911 will be much better.

As free as daylight to everybody,—the Annual Convention. NOT limited to members.

## THE ANNUAL CONVENTION

We give on another page the program and premium list for our Annual Convention to be held in Madison January 10th to 12th. Some changes may be made before Convention but the general scheme will be as outlined here. *Members please take notice that no other program will be issued nor any other notices sent members. Please preserve this paper for reference.*

While we know our members will read the program and appreciate all the good things offered we cannot refrain from calling attention to certain features. We have, for instance, a little change in the order of exercises on the opening day. In other years we have at once proceeded to the business in hand while this year the mayor of Madison, who is also president of the Park and Pleasure Drive Association, will have a word to say about Madison's parks. Dean Russell of the Agricultural College will also make remarks, the subject is not important, we know that all will listen.

Prof. Sanders, who talks Tuesday evening, is our professor of Entomology at the College.

## Get The Best



A Good Spray Pump earns big profits and lasts for years. THE ECLIPSE is a good pump. As practical fruit growers we were using common sprayers in our own orchards—found their defects and invented the Eclipse. Its

success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

**MORRILL & MORLEY**  
Benton Harbor, Michigan

## Hardy Nursery Stock Adapted for the Northwest

We offer a complete line of Fruit,  
Shade and Ornamental stock.  
Varieties that will suit  
your needs.

Berry Plants, Grape Vines  
Asparagus, Rhubarb,  
in the Leading Sorts.

Garden and Commercial Orchard  
Planters will do well to write to us.  
Prices consistent with Quality.

**McKay Nursery Co.,**  
Pardeeville, Wis.  
Nurseries at Waterloo, Wis.

## FRUIT GROWERS' SUPPLY DEPOT

Raney Cannery, Farm Evaporators, Barrel  
Pressers, Pointed and Step Ladders, Wilson  
California Picking Bags, Etc.

## FODDER BINDERS

SOMETHING NEW—You can save your FOD-  
DER with Little Labor. Send for new catalog to

## E. G. MENDENHALL

Gen. Agent Clark's Cutaway Tools  
and Fruit Growers' Supply Depot  
Box 321 KINMUNDY, ILLINOIS

## GRAPE VINES

Largest Stock, Best Varieties, Best Grade.  
Guaranteed True. We invite correspond-  
ence from parties intending to plant.  
Catalogue and Price List Free.

**T. S. HUBBARD COMPANY,** GRAPE VINE  
SPECIALISTS  
Established 45 Years. FREDONIA, N. Y.

Prof. Jones and his assistant Mr. Keitt will lead discussions on Apple Canker and Lime Sulphur. Members should come prepared to ask questions and offer suggestions.

These are some of the things offered, read carefully the entire program, also the premium lists. Not much of a year for apples, so do not hesitate to bring along whatever you have. You might as well have a part of the \$125.00 offered.

Once more, remember that the program as here printed takes the place of the circulars formerly sent to members.

**THE FARMERS NURSERY CO., OF TROY,  
MIAMI COUNTY, OHIO**

This company has sold cherry trees for \$97.50 per hundred and in addition one-half of the 1914 and 1915 crops. We have one of their contracts and some very interesting facts relating to their operations in the state. These we will publish soon and in the meantime would like further information. Anyone who has purchased trees from this company during the past five years can help us by sending to Secretary State Horticultural Society, Madison, Wis., his contracts and any facts regarding the deal. Contracts will be carefully preserved and returned within a week of receipt by registered letter. Who will help?

### CREDIT LIST FOR NOVEMBER

These members helped in November. You are next.

A. K. Bassett, 4;  
Dr. Eames, 1;  
E. W. Sullivan, 1;  
E. C. Stevens, 1;  
Dr. Chas. Babcock, 2;  
C. H. Marvin, 1;  
H. Albrecht, 2;  
Fred Beck, 3;  
F. W. Boyce, 2;  
Geo. A. Burton, 2.

### TO THE LADIES

We want notes on care of house plants, also photographs of your flowers. If you have had success, tell us how. The very simple things need telling often. Professional florists will be barred in this column.

## WANTED

Fruit grower or farmer to raise apple trees on shares or for cash. Grafted roots furnished but nothing else—Also want to hear from owners of land that is suitable for orchards, who would like to engage in orchard developing and selling as a business enterprise, or who merely want to sell their land.

**G. H. TOWNSEND**

Madison, Wisconsin

## WISCONSIN GROWN NURSERY STOCK

—FOR—  
**WISCONSIN PLANTERS**

A full line of Fruit and  
Ornamental Stock

**OUR SPECIALTIES:**  
**APPLE AND PLUM TREES,**  
**CURRENTS, STRAWBERRIES**

Get our Price List before Placing your  
order. Satisfaction Guaranteed

—ESTABLISHED IN 1854—

ADDRESS

**Kellogg's Nursery**  
Box 77, Janesville, Wisconsin

## Beauty Spots in Spring.

Now is the time to purchase and plant groups of the different bulbs, such as Tulips, Hyacinths, Narcissus, Squills, Crocus, etc. The adornment of our homes can be accomplished at little cost and should be looked upon as a necessity rather than a luxury. To help transform our earth to Eden just start a little flower planting this fall and you can rest assured that others will emulate the following year. Its a low priced hobby, but an interesting one to the individual and also the community.

**J. E. MATTHEWSON & SON,** 625 North  
Eighth St.  
SHEBOYGAN, WISCONSIN

# Wisconsin Horticulture

*Official Organ of the Wisconsin State Horticultural Society*

Vol. I

January, 1911

No. 5

## THE CONSERVATION OF THE CITY DWELLER AND THE GARDEN

C. B. WHITNALL, MILWAUKEE.

The value of the garden is too seldom appreciated excepting as it may be measured by money. Such a measure indicates its importance to mankind but partially.

The money value of flowers is based on the strength of our natural yearn-

to life, the other sustains us. Our Creator and our sustainer appear to be one and the same power.

When we examine into the lower stages of life, it is found difficult at times to tell whether the structure is animal or vegetable. Following upwards there is a separation and it becomes quite easy to tell which is which, but we find that both continue to be as interdependent as when all

vegetable life is virtually a part of our life.

Man, having grown together with flowers and fruits, (which are simply further developed flowers), for so many generations, we have come to see and feel their influence instinctively—nature's incessant care of us, made reasoning unnecessary. We have crowded into cities, denying ourselves or ignoring these vegetative in-



"Nature Makes Horticulture a Business"

ing for them. When so situated that we cannot help ourselves to them. Where some one has been delegated by Mammon to stand between us and our instinctive desire to exact compensation and tribute for such natural influences. This is too true of all large cities, there is not enough there to go around, and many of us go short.

The reason we like flowers is that they are the ecstasy of the regeneration of vegetable life on which we are dependent. It is the same love we have for our mother—one brings us

functions were contained in the one structure. And when animal is deprived of functioning with vegetation disease is the natural consequence.

Vegetative influences, not only of diet, but for environmental effects, are as necessary as the blood in our veins—in fact our blood could not be cleansed but for vegetation—influence on the atmosphere.

Although many of us do not stop to reason nature's clever arrangements to the desired understanding of them, it takes a small amount of serious reflection to convince us that

fluences, for the most part unconscious, until we wake up to realize that we have been sacrificing health for dollars.

It is the unsatisfied love that has brought into service the Wisconsin Horticultural Society. It is the business of this society to gratify mankind's love—love for flowers and fruit which is not essentially different from our love for each other—when you come to dissect love. You may be excused for not being able to distinguish love or draw a definite line between love and selfishness. This may



sound queer to some of you. You may dispute it, but you will have a job on your hands to prove the assertion entirely wrong.

You will all agree to this,—we do love flowers and fruit, and you must admit that we cannot live a natural life without them.

Our Indian didn't have a Horticultural Society. He didn't need one. He obeyed the dictates of nature, and nature makes horticulture a business.

The so-called progress of civilization appears to have been actuated by the desire to get something for nothing. This has forced a division of labor with its consequent development—an occasional sacrifice of first one attribute to our well being, then another, until now we have one-third of our population crowded into large cities, where deterioration is universal, where the third generation of city born are more or less degenerate, where the race would become extinct were it not for new blood injected from fruit laden and floral decorated environments. This is a fact born out by statistics. A thorough study of the matter requires its consideration from three aspects—the physical, the sociological and the economic. It will be in order today to consider the physical only. The more beautiful the landscape, as measured by our initiative sense of beauty—with flowers and fruits in more or less perfection,—the better will the atmosphere be for animal life—we cannot have pure water or utilize sunlight without them.

Atmosphere, water and light are the three God-given forces which, if withheld, or diverted from universal use, cause pestilence.

It is the crippling of vegetative functions of which the tree is the dominant factor—that is leaving our city dwellers in distress. Although we have much to say about good or poor land, let us not overlook the fact that our vegetation absorbs about 90 per cent of its material from atmosphere, chiefly noxious gases, which if left in the atmosphere, as is common within the confines of our large cities, we slowly starve, just as we do by insufficient or adulterated food for our stomach. On the other hand, if vegetation does not have this impure

atmosphere to cleanse for us, it also takes on a sorry look. We do most of our talking about the elements that are visible, when we take elements from soil without returning it. We see the results and say the land is exhausted and call it poor. These chemicals have been measured and given a commercial rating. I am told that in Germany it has been agreed that the elementary land value in sewage is \$2 a year per acre. According to this Milwaukee is dumping \$500,000 in its pond of drinking water annually. Yet some of our business men declare that if the Socialists undertake to stop this waste, we will bankrupt the city. Surely there are no members of this Horticultural Society that do not know that Wisconsin's rate of productivity is being lessened.

But do they all realize that a corresponding depletion of humanity is taking place? The waste of one causes the waste of the other—like the positive and negative poles of electric forces, there is an endless circuit or vibration of the elements between the animal and vegetable forces which, if interrupted, causes deterioration, we call disease.

We are civilized in Milwaukee as well as other large cities. That means we have assented to the rules of the game regardless of results in physique and morality. In spite of this we have agreed that cleanliness is necessary for safety.

But what is cleanliness? Many of us do not know. But we have learned what it looks like, and we have undertaken to deceive the laws of nature by keeping up appearances. We put our filth out of sight—run sewers underground—into rivers—keep receptacles in back yards and alleys. Yet we arrest a man for carrying a concealed weapon, and allow him to live in a room without sunlight. We cannot break natural laws and escape. To keep clean means to feed to, or return to, vegetation promptly all animal waste. There is no other way. The land, the garden, if you please, is our only safeguard.

I have spoken of the tree being the dominant factor in vegetation. While it may be permissible to call it dominant, how helpless it is alone.

Strange as it may seem, the average farmer appears to be as heedless of the fact as the city dweller. Notice how quickly nature covers up with shrubbery and flowers a gap in the wood, to keep out the drying winds. Notice how spraying becomes necessary when the natural floor covering and wind breaks are not maintained around our fruits. If our hills are not kept covered with trees, shrubbery and perennials the level or lower fields will suffer for moisture. The attempt of the modern Horticulturist to ignore the natural companionship or co-operation of various plants is one reason why we are fighting insect pests. There is a vegetable sociology as well as human. There is an interdependence between the classes of vegetation as well as between vegetable and animal.

I feel that humidity is the most important factor in horticulture or agriculture that may be considered as being within our control—and our control comes within the functions of applied forestry.

Now in view of these statements or assertions, let us consider the city dweller and the garden. The city dweller has become a machine attachment divorced from the garden. The division of specialized labor has increased our producing capacity. But a man who keeps doing the same work from Monday a. m. to Saturday p. m., stops thinking, activity of mind is impossible—like the non-use of a muscle—his thinker loses power. Therefore while factories have grown larger the average mind for a while deteriorates.

This fact, together with the devitalizing environment in which his home and labor is situated, puts him in a sorry plight. He has been going to pieces. This is why Great Britain has lowered its army standard of humanity for the third time—and why Germany has been replanting her cities, and is now devoting so much time and attention to land utility for physical security.

It is why Milwaukee is now establishing its first Agricultural School of which we want three right away. It is why the city dweller's ranks are constantly replenished by fresh blood from the agricultural districts. It is

why 80 per cent of the controlling energy of our cities was born on the farm. In short, it is why the land worker is destined soon to become the power and brains of our country. Our modern captains of industries and finances are proving their narrow minds and near-sightedness to have been entirely wasteful of our natural resources and humanity alike.

Of course, much of what is required for the restoration of normal conditions cannot be accomplished by individual effort. The individual finds himself handicapped by conditions over which he, as an individual, has not control.

The city and state must accept the responsibility for conditions which the city creates. *But*, the city is made of the individuals who in themselves must direct, and it is therefore incumbent on ourselves to acquire the personal experience necessary for intelligent control.

The fundamental basis for a higher and better living, therefore, is the individual garden experience. It is really astonishing what influence over a whole family can be acquired by getting the children interested in gardening a piece of ground twenty-five feet square.

There is the economic value of such a garden—it is very attractive to housekeepers.

Then the pleasurable exercise of all the faculties—there is no occupation that utilizes all your knowledge, be it much or little, like garden work. It is nature's laboratory that is sure to exercise your intelligence.

The success of the garden necessitates the combined physical and mental exercise under atmospheric conditions that build healthy bodies.

The school garden is by far more important today than commercial trickery.

Children take to it as natural as a duck to water. To punish a truant is like poisoning an invalid.

Gardening is the never-failing cure for truancy, because it fills a gap in our city life for which every soul yearns.

The garden is the only leverage that can lift the city dweller into normal activity.

The intelligence to manipulate the

leverage will be forthcoming from the cultivators of vegetation, whether they be called horticulturists, agriculturists or foresters—it matters little. They are simply divisions of the one great garden of our inheritance of which we must be the care-takers—individually as well as collectively—in order that we may breathe well, eat well and work to advantage.

Paper read at the Summer Meeting, Oconomowoc, Aug. 1910.

#### APPLE GROWING IN WESTERN WISCONSIN

S. RUNNING, MENOMONIE, WIS.

At the junction of Dunn and St. Croix counties and extending south into Pepin and Pierce are high tablelands and ridges having a most fertile soil of clay loam. There the foundation is limestone mixed with iron ore. There the basswood and hard maple flourishes and there the apple seems particularly to thrive, after the land is cleared and brought under cultivation.

The Wealthy, McMahan, Northwestern Greening, Wolf River and Duchess are there at their best. Exhibits of these and other kinds at the yearly county fairs have taken visitors by surprise. The apples from this region excel in size, color, beauty and texture all other regions and though not sprayed are entirely free from insects or fungi and not affected by pests of any kind.

My attention was called by these exhibits to the possibilities existing in said region for apple growing and negotiations were entered into with Mr. William J. Starr of Eau Claire, who owns large tracts of land there, with the result that the Western Orchard Company was incorporated with Mr. Starr president and the writer as manager of same. This company has set to orchard already 70 acres in the first year of its existence and 40 acres or more each year will be planted for commercial orchard.

To develop the soil region with so rich possibilities for commercial apple growing it does seem especially fitting and proper that the state should assist. The money that the state would judiciously spend for such a purpose would flow back to it

a thousand fold. There is in this region a probability that even the best winter apples would thrive, such as the Delicious, King David, Stayman Winesap, Senator, Champion Winter Banana, Spitzberg, Jonathan, Black Ben, etc., and just think if the state would demonstrate by trial that some of these kinds can be grown to perfection upon those high tablelands and ridges in these western counties of the state and be handled and marketed as well as by the western states, what a bonanza to the state of Wisconsin in the years to come!

But even with the varieties we have and are sure of the state could, with them, make a remarkable demonstration in this region. A high colored Wealthy as it here reaches perfection will compare most favorably with any apple, east or west, both in looks and quality, if rightly handled and presented to the consuming public, and our state has hitherto no institution wherein this science is learned by the people of the present generation or the next.

I call the attention of the members of this society to these facts. I started to set out apple trees some thirty years ago when apple growing was declared a failure in Wisconsin and I a lunatic for planting them. Yet those four acres I set to apple trees have returned me more money than any other four acres I have, and with the possibilities existing in the region described in this western tier of counties it is a proper function for the state to ascertain same and by example show the people the way to actual betterment by raising apples for commerce in western Wisconsin.

The increased interest in orchard work all over the state will, we predict, bring out more people to the convention than ever before.

It is the duty of every member to attend and bring a neighbor. This is the opportunity of the whole year to learn the things we want to know about that new orchard.

If mice are troublesome tramp the snow firmly around the base of the tree to form a conical mound. Mice turn aside for such obstructions.

### THE VALUE OF CONIFERS IN THE LANDSCAPE PLAN

"While we can secure much pleasure from the observation of trees in their bark, twig and fruit formation, yet the most impressive winter effects are largely produced by using the hardy coniferous evergreen with a lavish hand. In this connection, it may be said that an infinite variety of evergreens is not necessary to produce fine effects; while the list of the iron-clad evergreens suitable for Northern climate is woefully short, yet we have no reason to be disturbed. On larger places the liberal planting of pines and hemlocks for screening unsightly buildings and checking the force of the winter winds, will have much to do with the successful treatment of the place, for one can better appreciate the subtle beauties of a winter landscape if protected from the force of the icy wind by an effective screen of tall and stately evergreen trees.

#### THE PINES.

The most useful large growing pines for Northern planting are the white pine (*P. Strobus*), the Austrian pine (*P. Austriaca*), and the Scotch pine (*P. sylvestris*). The soft effect of the delicate needles of the white pine when young, and its stately appearance when old, place it pre-eminently in the lead, while the larger needles of the Austrian and Scotch pines contrast well and give variety. The only objection to the use of the American hemlock is that it cannot be employed near large cities on account of the smoke and sulphur gases, which are always present in manufacturing districts. In both large and small places the Douglas spruce (*Pseudotsuga Douglasi*) with its dark green foliage, and the Colorado green spruce (*Picea pungens*) and its varieties (*glauca* and *Kosteriana*), give variety to the winter landscape.

#### IMMEDIATE EFFECTS.

For immediate effect and for filling in between the more permanent pines and spruces the Norway spruce (*Picea excelsa*) is useful, but as it very often outlives its usefulness at an early age it is only useful for the purpose of temporary effects. The mountain pine

(*P. Mughus*) is the most useful of the low growing evergreens for our Northern climate and is not out of place on the smallest lawn. When massed at the foot of larger evergreens, it is extremely effective. Some of the junipers can safely be employed in the North. And by far the most effective of all is *Juniperus Virginiana glauca*, the glaucous form of the common red cedar. It is much more hardy than the type and it will thrive in the smoky atmosphere of the city as will no other cedar. Its whitish effect, like that of the Colorado blue spruce, is particularly striking. *Juniperus Chinensis stricta* is also an evergreen of the first rank for the North.

#### LOW PLANTING.

For low planting, *Juniperus Sabina*, the Savin Juniper is excellent, while *Juniperus communis* var. *nana*, which is still lower in growth, gives



Austrian Pine

us an opportunity to produce an evergreen carpet when it is desired. As a useful, hardy evergreen, we cannot overlook the Japanese yew (*Taxus baccata*). Its golden variety (var. *aurea*) is extremely useful, as it is really golden and adds a touch of bright color, which harmonizes well with the prevailing deep green of the majority of evergreens. In sheltered positions it is safe to use the pea fruited retin-

ispora (*R. pisifera*) and in some cases the silver retinispora (*R. squarrosa* var. *Veitchii*), but although this is fairly hardy it is often injured by the winter sun. While the evergreens enumerated do not include all of the coniferae that are hardy along the region of the Great Lakes, yet they do include the very hardiest species and these are sufficient to produce a winter picture which, as far as coniferae are concerned, will be effective and leave little to be desired.

What is true of the paucity of the really hardy coniferous evergreens in the Great Lake or Northern region, is still more true of the broad leaved evergreens. One of the very few which is hardy under all conditions is the Yucca (*Y. filamentosa*); when planted in large masses it is a cheering sight in winter, to say nothing of its profusion of bloom in summer. It is doubly welcome, but its value as a winter plant is its chief asset; even a solitary specimen on the lawn is an evidence of life in the snow.—Park and Cemetery.

### THE 1910 CABBAGE CROP

Indications are that the 1910 crop of late cabbage will be much smaller than last year, especially in the western growing sections. According to the Crop Reporter for August the condition of the cabbage crop in the principal cabbage growing states on August 1 as compared with a four-year average was as follows:

STATE	FOUR-YEAR	
	1910	AVERAGE.
New York.....	84	88
Pennsylvania.....	86	86
Ohio.....	87	92
Indiana.....	85	88
Illinois.....	86	88
Michigan.....	74	86
Wisconsin.....	55	87
Minnesota.....	57	89
Iowa.....	69	93
Colorado.....	81	89

If these figures are correct, and there is every reason to accept them as being so, it is fairly certain that there will be a premium on storage cabbage this winter. It is therefore wise for the grower who proposes to store to see to it that this crop is housed under the best possible conditions.—Market Growers' Journal.

**PLUMS IN THE NORTH**

B. M. VAUGHAN, WISCONSIN.

I live in central Wisconsin where, in winter, the thermometer often registers 30 and sometimes 40 degrees below zero, but in spite of our severe winters I have in bearing a plum orchard of over 500 trees. Of these nearly 300 are of so-called tame varieties, and all of them are Americans.

No fruit that I know is adapted to a greater range of soils than the American plum. I have it growing on rather stiff clay, on light sand, and on several varieties of soil ranging between the two. I also know of its growing luxuriantly, and bearing well on drained muck, and on black prairie soil. It also thrives and fruits well in a great variety of locations, in respect to moisture. However, on wet, soggy clay or muck it does not thrive, nor does it do well on extremely light sand, unless well fertilized. Soils too rich in humus are apt to cause too much wood growth on native plum trees, at the expense of fruit, and to cause them to break from overload of foliage.

Because the American varieties are so liable to split, it is desirable that the plum orchard be protected from heavy winds. If you must plant in a windy place surround your plum orchard with a good evergreen, willow or other hedge that will grow high enough for a windbreak.

**TREES FOR SETTING.**

If possible get your young plum trees on their own roots, not grafted. Such trees are known as root sprouts or suckers. Those from  $\frac{3}{8}$  to  $\frac{1}{2}$  inch thick at the ground line start better, grow better and bear quicker than large trees. A root sprout planted when the size of a lead pencil will usually bear fruit the second year. If you can get only grafted trees plant them at least 6 inches deeper than they originally grew. This will permit the tree to throw out new roots above the union, and you will soon have trees on their own roots.

Practically the only American trees that I have ever lost, after they were well started, were grafted trees, and the roots died first. No small advantage of having trees on their own

roots is that the suckers or root sprouts that come from them will be of like variety with the original tree, and can be reset to enlarge the plantation.

**BEST VARIETIES.**

Many varieties of American plums do well with us on a great range of soil. Among these are Wolf, De Soto, Forest Garden, Hawkeye, Comfort, Cheney and City. Some varieties, however, have a very decided soil preference. The Rollingsone on clay, heavy clay loam or muck produces small crops of small, ill-flavored or insipid fruit, and that of dull color; while on sandy loam, sandy clay loam, and even on light sand, it bears abundant crops of medium to large fruits, of good color and excellent quality. Knudson's peach plum, with us, gives more satisfactory results on rather heavy clay or clay loam.

The color of the same variety often varies much under varying soil conditions. De Soto on heavy soil is much more red than on lighter soil. On the latter it takes on a golden yellow color.

For the average grower, either for commercial purposes or for home use, no matter what his soil, the following are probably as good as any of the widely tested varieties: Cheney for early; Forest Garden, City, Comfort, De Soto and Wolf for succession in mid-season and Hawkeye for late.—Orange Judd Farmer.

**CARE OF MANURE IN WINTER**

One of the important problems on the farm is to conserve as much of the fertility as possible, and still produce good crops. It is well recognized that one of the best ways of doing this is to feed to live stock a large proportion of the crops grown, and to return the by-product, manure, to the land. This brings up the important question of how best to handle this manure so that it will be best conserved.

It is quite generally considered, now, that the most economical way, both as to the economy of labor and elements of fertility, is to haul the manure direct from the barn to the field. Of course there are some days in the winter when it is difficult to

get manure onto the field. However, every day that it is possible, manure should be hauled directly to the field and spread.

There are two ways by which the fertilizing value is lost; the first is by heating, and the second is by leaching. If manure is left in piles about the barn, it soon begins to heat, even in winter, especially if it contains any large proportion of horse manure. When it heats, the manure is decomposed and the element of most value, nitrogen, is lost in the form of gas. In the spring and early summer, if manure is lying about the yards where rain can fall on it, much of the fertility is leached out and carried away. If manure is spread on the field directly from the barn, heating is prevented until the manure is covered up in the soil. Then any elements that are liberated by decomposition are taken up by the soil and saved. When manure is spread out on the field, it dries out; and, as the larger part of the manure is in insoluble form, even if it does rain on the fields, very little fertility is washed out, because it is not soluble. It does not become soluble until covered up in the ground, where it is kept moist and where decomposition can take place. Then the leaching leaves the fertility in the soil, where it is used.

Considering these facts, and the fact that manure is handled fewer times when hauled direct from the barn to the field, makes it quite evident that, from the standpoint of economy, this is the practical way of handling manure.—A. D. Wilson, Minnesota, in the Market Growers' Journal.

**PIEPLANT IN THE WINTER**

By the middle of winter there is always a longing for something fresh in the vegetable or fruit line. Canned and dried fruits make a welcome addition to the bill-of-fare, but do not take the place of something freshly grown. Lettuce and radishes and other greenhouse grown vegetables are beyond the reach of most farmers, but fresh rhubarb, far more delicate in flavor and attractive in appearance than that grown out of doors, may be easily forced in any farmer's cellar.

To accomplish this, dig up or plow



out several strong clumps of rhubarb, retaining unbroken as much of the large fleshy roots as possible. Do this late in the fall, but before the ground has frozen. If dug while the ground is moist so that plenty of dirt clings to the roots, they may be left where they were dug, until frozen solid. If the dirt falls away from the roots, pile them together in some handy place, on some old boards, then throw enough straw or litter over them to keep the roots from drying out. Leave them there until frozen. After being frozen, those left in the garden should be piled on boards where they may easily be got at during the winter.

After the roots are well frozen, take a few of them into the cellar in a place where little light will get to them. Pack sand, dirt or wet straw among and around the roots, then water thoroughly. After this water when it is seen that watering is needed. If placed in a cool cellar the growth will be quite slow, but if in a warmer cellar such as a furnace room, the growth will be rapid and in a few weeks fresh pie plant may be had for short-cake, pies or sauce. Other lots may be brought in at intervals to furnish a succession. It is very essential that the roots be thoroughly frozen first, otherwise it will make but a poor growth.

When grown in a dark cellar there will be but a small amount of leaf, and the color of the stalk will be a most beautiful pale, shell pink, that adds greatly to its attractiveness.

The rhubarb does not take any of its nourishment from the soil when forced in this way, but lives on the food stored up in the roots. There is not much vitality left in these roots after furnishing a crop so that it is hardly worth while to plant them out in the garden again. It will take two or three years to regain enough strength to again make them available for forcing. A more satisfactory way to keep up the supply of roots is to sow the seeds, which grow readily, and will make good strong roots in a couple of years. Another way to increase them is to divide and replant the old roots. Most of these divided plants will be large enough to force after one year's growth.

I expect most of the readers of this will not have fresh pie plant this winter, not because they lack the rhubarb roots, or the time or the cellar, but because it is so easy to put such things off to the tomorrow that never comes.—W. A. Toole in Wisconsin Agriculturist.

#### PROFITS IN FRUIT GROWING

The following interesting statements by President J. G. Schurman of Cornell University at the meeting of the New York State Fruit Growers in Rochester, January, 1910, will be of interest to Wisconsin fruit growers. In this connection we offer a query

If this nine acre Baldwin orchard yielding gross only \$266.71 per acre is computed to be worth \$3,271 per acre, how much are some of our Richland county apple orchards yielding as high as \$450 per acre worth?

Or again, how much computation will it require to find the capitalized value of the eight acre cherry orchard at Sturgeon Bay which averaged \$836 per acre? New York, Michigan and Oregon fruit men are requested to reply.

"Capital is not attracted to any enterprise unless remunerative, but in the case of fruit growing, the people are not aware how profitable the enterprise really is or may be made. A study of the income from 178 New York farms has been made by the Experiment Station at Cornell, these not the smaller or average farms, but averaging a capitalization of \$11,000, and the investigation shows that there are good chances

for making money in agriculture in New York. But the most striking thing in this investigation is the showing made by the fruit farms, a per cent of 19.8 having been realized on investments in fruit farms as against an average of all farms (including fruit farms) of 11.1 per cent. The farmer's salary or labor income on these 178 farms averaged \$981, while the labor income on the fruit farms alone averaged \$2,209. Eleven fruit growers of the group cleared above \$2,500 each annually, while only one dairyman and no general farmer did this.

"A noteworthy showing of expenses and returns on a fruit farm of nine acres has been made by a recent graduate of the College of Agriculture at Cornell, which represents his first year of work after graduation on his home farm.

#### EXPENSE OF CARE.

Area of 9 acres, mostly Baldwins, 34 years old.	
Pruning	\$20 00
Spraying twice, labor and team	30 20
Spray materials	22 00
Plowing	15 33
Tillage, 5 times	17 50
Drawing and spreading 100 loads manure	17 50
Harvesting, picking, packing and picking drops	196 50
Hauling	10 00
Barrels	325 00
Total expense	\$634 03
Yield	900 bbls.
Gross income	\$2,400 39
Net income	1,766 36
let, per acre	196 26

"Valued at \$200 per acre, this orchard returned 100 per cent on the investment, or, considering 6 per cent a fair return on any investment, then this farm was worth \$3,271 per acre."

Mention this paper when writing to advertisers.



A Cover Crop at Poplar, Oats planted July 15th, Photo September

### RASPBERRY CULTURE

The following is not in one sense timely but we print it in January hoping that some of our berryless readers may be induced thereby to purchase a few raspberry plants next spring.

"While it is true that raspberries will give a fair return when planted in an ordinary place, there is no place like an open place for them when the soil is all right. Should the ground be heavy work in vegetable refuse, decayed leaves for instance, or sand, if nothing better offers. On the other hand, if it be too light, trench it deeply and work in stable manure with it.

The distance apart is to be regulated by the size of the garden somewhat. There is rarely anything lost by giving ample room. Rows five feet apart and plants three feet apart in the rows, is about the right distance. It is usual to leave some length of cane for the convenience of handling when planting, but before spring these tops should be cut almost to the ground, as it is the young canes which spring up from the ground which bear the fruit the next season, and the old ones, from having been transplanted, would be too weak to fruit to give satisfaction.

As to training in amateur gardens, the plan is either to have a stake to each clump or else to have a stout post at each end of the row, with a strand of wire from one to the other, and fasten the canes to the wire. Some prefer to let the canes support themselves, heading them off when growing to make them stocky, but in small lots it is better to tie them.

When the plants are established, mulch the ground with manure every fall. A moist, rich soil is what raspberries delight in. They do not require much pruning. A third or fourth of the cane will be enough to cut away. After fruiting is over and the new canes are well advanced the old ones may be cut away. It makes no difference whether it be red or black cap raspberries, the treatment is the same.

A well cared for raspberry bed will last for years. Sometimes after the lapse of time the new canes get so

far away from their places that a new bed is as well started. The red ones are started from young canes set where required, but black caps are increased from the points of the canes. About mid-summer they are bent over and a peg or stone holds the extreme end to the ground. Soon roots push out in every direction, and in the spring these rooted plants are set in their places in the bed that is to be."  
—Greene's Fruit Grower.

### NORWAY POPLAR

A Green Bay correspondent asks about Norway poplar. C. S. Harrison of York, Neb., writes as follows in the Fruitman and Gardener concerning this rapid growing tree:

This never saw Norway, but was found growing among the Norwegians of Minnesota—hence its name. Its origin, like that of the Carolina poplar, is unknown. Prof. Hanson thinks that it was one of Prof. Budd's importations under the name of the Giant Asiatic poplar. I think I had the same thing thirty years ago. Attention was first called to it by Prof. Green of the Horticultural Department of Minnesota Agricultural college. He says "It is the most rapid growing tree on our grounds." We secured some for this station and in one year had hundreds of trees eight or nine feet tall from cuttings set in the spring. One fall I cut some for fence posts which at four years measured 15 inches in circumference three feet from the ground.

A farmer in Minnesota in fifteen years had trees 17 inches through and 55 feet tall. The groves among the Norwegians were examined by a U. S. Government expert and he made a favorable report, which was published in Forestry and Irrigation.

Clarence Wedge, a prominent nurseryman in Minnesota, and for years president of the Horticultural Society, speaks in the highest terms of them. He says "We noted a number of trees that would make logs 60 feet long that had a difference of only 10 inches between the ends." Instead of wasting itself in side branches it retains its size as it mounts upward as if in great haste to make a good saw log. It grows

very straight which makes it very desirable for quick results for wind breaks, driveways and avenues. It is now in great demand for excelsior and wood pulp. It is in such a hurry to get there, that there is the greatest call for it of any tree, being the most rapid grower of any for our Northern states.

It is some like the Carolina, so much so that for the first few months you may think them identical, but wait—there is a difference.

### FOR FENCE POSTS.

Nebraska alone spends a million dollars a year for fence posts. Plant Norways, care for them and in five or six years you have several thousand from an acre. Cut and peel them in August, pile them up cob fashion and let them dry thoroughly. Throw them on a burning brush pile and char them slightly about three feet up or dip them in hot coal tar and you have a post costing about 5 cents that will last for years. We have seen the lumber. It is better than pine for bridge planks, for framing, for sheathing and flooring, and dressed with hard oil it does well for casings.

When you find a tree in such a desperate hurry you ought to help it along. Most farms have low rich spots, the ideal place for weeds where you have been growing them successfully for years, just the place for Norways. Set these unproductive spots to raising houses and barns and you can get a good crop of them in 20 years. Hundreds of men have cut \$300 worth of cottonwood to an acre in 25 years and had the land left all the better for the trees. Can you guess what lumber will be 20 years from now, with the great timber famine coming down upon us ravenously devouring our forests. Your hundred dollar land should get busy. You can't afford to keep idle places when they might bring you a rental of \$12 to \$15 per acre per year. You just plant it and look on. The trees do the work.

We have asked the boys and girls some simple questions this month but grown-ups may also answer. Please give your age.

# Wisconsin Horticulture

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Remit to Secretary W. S. H. S.  
Madison, Wis.

We have a new motto for our office; here it is: "If you would avoid unkind criticism, say nothing; do nothing; be nothing."—*Fra Elbertus*.

We commend it to all of our readers as sound philosophy.

Jan. 10, 11, 12, 1911.

Annual convention of the State Horticultural Society.

All indications are for the largest attendance in the history of the society.

The Executive Committee will meet at the secretary's office Monday evening at 7:30.

Everybody should be on hand Tuesday morning; the opening exercises, talks by Mayor Schubert and Dean Russell will be of interest to all.

The office of the secretary is at 24 E. Mifflin St., third floor, telephone No. 411. Members coming in on Monday are invited to call.

Special rates will be given on "want" or "for sale" ads. Have you something to sell? Advertise in WISCONSIN HORTICULTURE.

Rooms have been reserved at the Avenue Hotel for officers, delegates and all whose names appear on the program; others who expect to attend should write the secretary for reservations.

February HORTICULTURE will be a pruning number. We want hints and suggestions on pruning from members. Fruit and shade trees, berry bushes, roses, vines, any kind of pruning.

The program as given on another page is only a part of the convention. The discussions following each topic, the question box, the time between sessions and best of all, the "round-table" talks at the Avenue after evening adjournment, these things are not in the program but constitute the most interesting feature of the meeting and something that cannot be had from the annual report. It is contact with the men who are *doing things* and interchange of opinion that counts.

None of our members can afford to miss the convention.

## OUR LIST OF UNDESIRABLE CITIZENS

The Farmers Nursery Co., of Troy, Miami County, Ohio. R. C. Bell, Agent.

This company has been operating extensively in Wisconsin for at least three years. The first news we had of this company was in the summer of 1908 through a telephone message from Walworth county, asking if the State Horticultural Society had in its employ representatives selling nursery stock in Walworth county. This, as may be imagined, was enough to cause the secretary to have several kinds of fits, followed by convulsions. The story of what followed is a long one, but we will condense it as much as possible.

It was a beastly hot, scorching day in July, when the secretary followed the trail of the serpent through Troy, East Troy, and over towards Elkhorn. The story was the same all along the line; a very honest *appearing* party by the name of Wood had worked the territory in western Walworth county, representing himself as an authorized representative of the Wisconsin State Horticultural Society sent out to teach the farmers how to properly prune and care for orchards; if Mr. Farmer would kindly step out to his orchard a few minutes he would be shown the proper method of pruning, etc. At the close of the lesson the victim was told that the Horticultural Society paid the salary of the "instructor" but in order to pay expenses orders were taken for nursery stock, guaranteed, etc., etc.

Who wouldn't fall for such a pretty story? And they did *fall* every time, —until two farmers were found who were willing to admit in a court of law that they had been the victims of a bunko game. One of these men secured a warrant for G. W. Wood, agent of the Farmers Nursery Company, then operating from Tippicanoe, Ohio. Mr. Wood was arrested and held for trial on the charge of obtaining money under false pretense, but owing to the representations made by his attorney as to the results in a personal way following conviction on such a serious charge and promises on the part of Wood to get out of the state and stay out, he was allowed to enter a plea of *nolo contendere*.

which a lawyer will define for you. To our mind it means "I will quit if you will."

A moderate fine was imposed and we heard no more of the

case. We are not prepared to say that the Farmers Nursery Company instructed Wood to use such means as here described to obtain orders, but we do know that the company was

fully aware of the practices and wrote a long letter to this office defending Wood.

This is the company which has been selling cherry trees in Wisconsin the past season at \$97.50 per hundred and other considerations. We give herewith a sample contract. It certainly is a corking good contract and no loop-holes as far as we can see. It is signed by the buyer and his wife, the Farmers Nursery Company, by R. C. Bell, "Commercial Orchard Manager," and witnessed by one H. H. Bell.

The first humbug in this contract is the price. Early Richmond and Montmorency cherry trees may be bought in one hundred lots for \$35.00 delivered. If one thousand lots are wanted write to our advertisers and you will be quoted prices much less than \$35.00.

It may not be fraud to charge for a tree three times its actual worth but it is, to say the least, a cussed mean trick.

And then there is that Diagram and Book of Instructions! These must be very important documents, (we have not been able to secure copies) as the entire liability on the part of the company appears to rest on the fulfillment by the buyer of these instructions.

And then the horticulturist who is to trim these trees free for three years! We would like to have a look at him trimming. We will pay five dollars in cash for a good photograph of any horticulturist employed by the Farmers Nursery Company of Troy and Tippecanoe, Miami county, Ohio, caught in the act of trimming cherry trees in pursuance of one of these contracts.

And again, and yet once more, note the generous whole-hearted concessions granted the buyer by the clause which permits him to cancel the contract "within thirty days after the date hereof, by giving first party written notice of their intention to do so, and by paying fifty per cent of the cash payment, either in cash or by draft, the same to accompany said notice."

This is really magnanimous, the opportunity to let go before getting the trees on payment of the very

THIS AGREEMENT, made and entered into by and between the FARMER'S NURSERY COMPANY of TROY, County of MIAMI, State of OHIO, party of the first part, and \_\_\_\_\_ and his wife

\_\_\_\_\_ of \_\_\_\_\_, County of \_\_\_\_\_, State of Wisconsin, parties of the second part.

WITNESSETH: That for and in consideration of the sum of ninety-seven 50/100 dollars, and a further consideration hereinafter stated, said first party agrees to deliver to the said second parties at New London, in the said county and state, in the fall of 1910, Commercial Orchard No. 333, consisting of one hundred fruit trees five feet and up of the following varieties:

100 Cherry, varieties, 50 E. Richmond and 50 Montmorency.

\_\_\_\_\_ Pear varieties, \_\_\_\_\_ and \_\_\_\_\_ varieties \_\_\_\_\_ and \_\_\_\_\_

Said second parties agree to pay to said first party forty-eight 75/100 dollars in cash, of said designated sum of money on the day said trees are delivered at the aforesaid delivery point; the balance of said money to be paid in three equal annual payments, the first of said payments to be made on the 25th day of October, 1911, the remaining payments to be made on the same date of each year until the balance in full is paid, and in addition to said sum of money to be paid in the manner aforesaid, first party is to have one-fourth of all fruit grown upon said trees during the years 1914 and 1915, said fruit to be divided by each party taking its proportional number of trees in each row, first party to take charge of its fruit on the tree and harvest the same.

Said second parties agree to take charge of said fruit trees, transplant, and care for them in accordance with the Diagram and Book of Instructions to be furnished by first party on the day said trees are delivered at said delivery point.

It is understood and agreed by the parties hereto that after second parties have settled for, transplanted, and cared for said trees in the manner above specified, said first party agrees and binds itself to furnish a Horticulturist, without extra charge, to trim said Commercial Orchard for a period of three years, at such time during each year, and in such manner as said Horticulturist may deem best. Said first party also agrees to furnish free of charge, each year, all trees that have died from natural causes up to the date of trimming.

It is further understood and agreed by the parties hereto, that in the event second parties refuse to settle for said trees as above specified, or refuse to permit said Horticulturist to trim said orchard as above stated, the amount in full unpaid shall become due and payable at once.

It is finally agreed by the parties hereto that the second parties reserve the right to cancel this contract within thirty days after the date hereof, by giving first party written notice of their intention so to do, and by paying fifty per cent of the cash payment, either in cash or by draft, the same to accompany said notice.

It is understood and agreed by the parties hereto that this agreement embraces the entire contract between the parties, and that any verbal statements made by the parties in connection herewith shall not be binding on either party.

This agreement is signed in duplicate, each party holding a copy.

Witness our hands on this 10th day of May, 1910.

THE FARMER'S NURSERY CO.

By R. C. BELL, Commercial Orchard Manager.

Witness to signatures: \_\_\_\_\_

N. N. BELL. \_\_\_\_\_



modest sum of \$24.37 but on the whole, from what we know of this company, it might be the cheapest plan.

One more comment and we will quit, leaving our readers to decide on the merits of the case. During the summer of 1909 we found the Home Nursery Company, of Bloomington, Illinois, (see November HORTICULTURE) selling cherry trees at \$69.50 per hundred, around Marshfield, and giving with each order a share of stock in the Eastern Preserving & Canning Company, of Harrisburg, Virginia. These stock certificates were signed by R. C. Bell, president. A most remarkable similarity of names,—and games.

#### GOING SOME AT BAYFIELD

I enclose report of our society for the last year. We have not done much in the way of meetings and exhibits, but nearly every member has been hard at work getting lands ready and fruits started to growing and are about in position where information such as the state society furnishes will be of great interest and advantage to us. There is still a great and growing interest here in the development of fruit culture. There must be now about 100,000 fruit trees planted and quite an area, probably 175 to 200 acres, in small fruits in the district around Bayfield. We hope for a successful season next year in the small fruits which we think will greatly stimulate the interest in the fruit business.

Extract from annual report of Bayfield County Horticultural Society.

We have not been overburdened with contributions recently but live in hope. Long articles are not wanted, short notes, observations and comments are most welcome; six to ten lines.

We are still looking for notes on culture of house plants from the ladies. We had no idea our lady friends were so bashful.

We ought to have at least one hundred members in attendance at the opening on Tuesday morning.

#### THE MUTUAL INTERESTS OF THE FRUIT GROWER AND COMMISSION MAN

Mr. H. C. Christensen of Oshkosh is a market gardener and fruit grower and one of the wide-awake and progressive kind. Pres. Toole selected Mr. Christensen as our delegate to attend the convention of Northern Illinois Horticultural Society at Princeton December 8 and 9. The paper which he read on that occasion follows:

I am from Wisconsin, three miles west of Oshkosh, a city of 36,000, a fine town, with as good a market as one could wish for. We have half a dozen more cities, somewhat smaller in size, all located in the Fox river valley within twenty-five miles of Oshkosh. If our home market is overstocked there is usually a ready market in some of these, so you will see my goods are sold mostly to hotels and retailers, although the commission men get a fair proportion.

I have some advantages not available to all gardeners. We have city telephone connection, so there is no toll, and interurban cars that carry freight at a very reasonable rate, passing our door every hour. Our local commission men have found it very convenient when they get their orders for quick delivery, to forward them to us with instructions for shipping and grade of goods wanted. We then crate and ship, and it is seldom if ever the commission man even sees the goods, for he knows from former dealings they are right and can be depended upon. In this way he receives compensation without expense. The retailer also finds it beneficial to get goods in this way. If goods are always picked, graded and packed as they should be the commission man will pay the highest possible price, for he needs the goods and must depend upon the grower for them. He also can command a good price from the retailers, as they, too, are looking for the best.

One very important thing the fruit growers and gardeners very often neglect to do, is to keep the commission men posted as to when their crops are ready for market. I have known of a great many instances when the commission men received a large shipment of fruit or vegetables the

very day the home goods were brought in. Consequently the market was flooded. Home goods are, of course, preferable. The grower outsells the commission man but does not get the best price possible, the commission man is obliged to sell at a very small margin, if any, and both are losers simply because they did not co-operate, and, in place of creating a brotherly feeling, this tends to lead to rivalry.

When selling to commission men one ought also to consider the condition of fruit when packed, and mode of packing. Only good sound fruit should be packed and this in neat, small packages whenever possible, for it is the package that sells the goods. A small neat package that does not have to be broken is what the dealer is looking for. Too many poor and dishonestly packed goods are forced on the market. This is particularly the case with berries and apples, when a few choice ones are placed on the top and the balance frequently unfit for use. If fruit is properly graded this difficulty is easily overcome. Do not misrepresent the goods. Of course, we all want our product to look the best and it is natural the very choicest should have the best place, but be sure the rest is not far behind.

In marketing our berries we stamp our name on each individual box, as well as crate, and guarantee every package. We also stamp our melon and tomato baskets and crates and in fact every thing we pack. We always find the commission men, as well as the retailers, ready to handle goods that are guaranteed.

In selling to the outside market we send regular quotations by mail or, by wire if necessary, and unless we are overstocked we never send goods to be sold on commission; but even when we have been compelled to do this we have received very fair treatment and the returns have always been satisfactory. In return, when we have received orders which we were unable to fill we always tried to obtain the goods elsewhere, thereby supplying the customer and often helping a neighbor to dispose of his entire crop.

Very often we read of some organization formed to do away with the

middle man, to get the goods more directly from producer to consumer. It seems to me that in every case it calls for a man to sell the goods at the other end. He is in a strange place, dealing with strange people and he is there without equipment. Before he has established himself, learned the class of goods wanted and had his expenses paid, it appears as though he would be about as expensive a middle man as the already established commission man.

One of the most serious problems that confront the commission man, the grower, and the consumer today is the short-measure berry box. Nothing would be of greater benefit to us all than a standard size, full measure box and a law governing same. We ought not to have a Horticulture convention without a paper on this vital subject and let every State Horticultural Society appoint a committee to draft a bill to this effect. Let us have it brought before the Legislature and keep at work until it becomes a law, not only in Illinois and Wisconsin, but in every state that grows a berry.

#### A DEFINITION

We asked Brother Richardson of Stanley, who is an attorney, to give us the law about rabbits at the convention. His reply is too good to keep until next week and we give it herewith:

STANLEY, WIS., Dec. 17, 1910.

MR. FRED CRANFIELD,  
Madison, Wis.

Dear Cranfield:

Yours received. I will try to swim the Hellespont that separates Law and Rabbits. Have looked all over for a definition of a rabbit in the books—and there is none. I shall define a rabbit as "A perpetual perigrinating nuisance, moving rapidly from place to place, equipped with a bunch of hair at one end where a tail ought to be, and a set of strong teeth at the other end where a brain ought to be, and direct-connected to the teeth, a 40-horse power appetite for apple tree bark."

Yours truly,

C. L. RICHARDSON,

Attorney.

# Wisconsin State Horticultural Society

## ANNUAL CONVENTION

TO BE HELD AT

Madison, January 10, 11 and 12 1911

The convention will be held at the Madison Free Library, Corner Dayton and Carroll Sts., one block from the Capitol Square.

The Avenue Hotel will be headquarters for officers, members and visiting delegates. Rates \$2 and \$2.50 per day, American plan.

Opening Session, Tuesday Forenoon, January 10, 9:00 O'clock.

A Word of Welcome.....Hon. J. C. Schubert  
Mayor of Madison.

Greeting from the College of Agriculture, U. of W.....H. L. Russell  
Dean of the College.

Introduction of delegates from Iowa, Illinois, Minnesota and Michigan.

#### SMALL FRUITS.

Lessons Learned in a Dry Season.....E. A. Richardson, Sparta  
Fruit Raising in Jackson County.....E. W. Sullivan, Alma Center  
Raspberries and Blackberries.....W. R. Soverhill  
President N. Ill. Horticultural Society.

Frost, Drought, and Strawberries.....A. B. Blackman, Richland Center  
A Visit to a Farmer's Up-to-Date Garden.....H. G. Street, Hebron, Ill.

#### QUESTION BOX.

TUESDAY AFTERNOON, 2:00 O'CLOCK.

The Lure of the Land.....Dr. E. W. Walker, Delavan  
Soil Moisture and Plant Feeding.....Prof. F. H. King, Madison  
Apple Tree Canker—

A Discussion, opened by L. R. Jones, Prof. Plant Pathology, U. of W.  
Self Boiled Lime Sulphur Wash—

Discussion, opened by G. W. Keitt, Dept. Plant Pathology, U. of W.

TUESDAY EVENING, 8:00 O'CLOCK.

Some Things Fruit Growers Ought to Know About Insects, (Illustrated)  
J. G. Sanders, Prof. of Entomology, University of Wisconsin.

WEDNESDAY FORENOON, 9:00 O'CLOCK.

#### BUSINESS SESSION.

President's Address.

Report of Secretary.

Report of Treasurer.

Report of Chairman Trial Orchard Committee.

Reports from delegates to other state societies. (Verbal or written reports limited to five minutes each.)

Reports of delegates from local societies:

Algoma, Bayfield, Lake Geneva, Maritowoc, Omro, Oshkosh, Poyssippi.  
Rushford, Sheboygan, Madison. (Two minute reports.)

Election of officers and members of Executive Committee.

Ways and Means to Improve our Society. Two minute talks by members.

Varieties of Apples for Commercial Orchards:

For the Ten Acre Orchard.....L. G. Kellogg

For the Twenty-five Acre Orchard.....J. S. Palmer

For the Fifty Acre Orchard.....D. E. Bingham

For the One Hundred Acre Orchard.....R. J. Coe

Only lists and brief comments to be submitted; time two minutes each, as many questions may be asked as desired.

WEDNESDAY AFTERNOON, 2:00 O'CLOCK.

Minnesota Orchards.....Prof. A. R. Kohler, Minnesota Agr. College  
 Michigan Grapes.....R. A. Smythe  
 Pres. Michigan State Horticultural Society.  
 The Apple Seed.....G. D. Black, Independence, Iowa  
 Grapes in New York.....Rev. C. Knight, Baraboo

## STUDENTS' CONTEST.

TEN DOLLARS IN PRIZES.

The STATE HORTICULTURAL SOCIETY offers through the Department of Horticulture of the university three prizes of *Five, Three and Two Dollars* each for the *three best five-minute talks* given by students

## REQUIREMENT FOR ENTRANCE.

Any student above the first year in the long or middle courses in Agriculture may compete for these prizes.

Application for entrance to the contest shall be made in writing to James G. Moore of the Horticultural Department not later than December 15, 1910. The applicant shall state on his application the subject of his talk.

The contestant may select his subject, the only requirement being that it be along some line of horticulture.

Manuscript for the talk, not to exceed 500 words, shall be submitted to Prof. Moore on or before January 1, 1911. From the manuscripts submitted not to exceed ten shall be chosen for the final competition.

Prizes will be awarded by a jury chosen by the president.

WEDNESDAY EVENING, 8:00 O'CLOCK.

Some Choice Music.

Program by the Horticultural Department of the University of Wisconsin.  
 Cross Pollination as a Factor in Fruit Growing.....H. G. Smith  
 Forcing and Garden Culture of Rhubarb.....H. D. White  
 Recent Development in Lime-Sulphur as a Summer Spray.....W. W. Clark  
 What the Horticultural Department Is Doing in Horticultural  
 Extension.....J. G. Milward

THURSDAY FORENOON, 9:00 O'CLOCK.

The Cabbage Raising Industry in Southeastern Wisconsin.....  
 .....W. J. Moyle, Union Grove  
 Hotbeds and Cold Frames.....J. W. Roe, Oshkosh  
 Sweet Corn.....Wm. Nelson, Oshkosh  
 Onions.....H. C. Christensen, Oshkosh  
 Rabbits.....C. L. Richardson, Stanley

THURSDAY AFTERNOON, 2:00 O'CLOCK.

## GARDENS—Small Ones

A Garden Fifty by Ninety Feet....Mrs. W. H. Richardson, Wauwatosa  
 Possibilities on One-Eighth Acre—(75 feet square).....  
 .....Irving Smith, Ashland

## PLANTING AN ORCHARD.

## The A B C of Starting an Orchard—

- (1) Selection of Site.
- (2) Preparation of the Ground.
- (3) Best Size (age) of Trees, Apple, Cherry.
- (4) Laying Out the Orchard.
- (5) Details of Planting a Tree (Illustrated).
- (6) Pruning or Cutting Back Roots and Tops—(first-class cherry and apple trees will be used for demonstrations)
- (7) Care of the Orchard the First Season—when to cultivate, best tools to use, crops if any, etc.

Discussion opened by R. J. Coe. D. E. Bingham, L. G. Kellogg, J. S. Palmer and other expert orchardists will participate

Thousands of fruit trees will be planted next spring by beginners. If there are any who want to know the very best way to start let them come and ask questions. The simple facts will be explained by the best orchardists in the state.

The Improvement of Rural School Grounds.....W. E. Larsen  
 State Inspector of Rural Schools

# JEWELL MINNESOTA GROWN Nursery Stock

Complete assortment of Fruit and Ornamental stock in all varieties suited to northern culture. A specialty of Hardy Shade Trees, Windbreak Stock, Evergreens (Coniferous), Deciduous Shrubs, Apples and Native Plums.

## THE JEWELL NURSERY CO. LAKE CITY, MINN.

1500 Acres

Established 1868

## FIRST CLASS NURSERY STOCK IN GREAT VARIETY

Consisting of

## FRUIT, SHADE AND ORNAMENTAL TREES

Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grape Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

The Coe, Converse & Edwards Co.  
 FORT ATKINSON, WISCONSIN  
 Wisconsin's Largest Nursery



One of our boys, Alden W. Smith of Ashland, just 7 years old. Also some celery.

#### FOR BOYS AND GIRLS

Will some of our young friends tell us how many kinds of birds winter in Wisconsin? We will take pleasure in publishing letters from boys and girls on this subject.

If a cat is up a tree how does it come down, head first or tail first? How about the squirrel.

Mr. — has just been out to look over his orchard and tells me that he will have a big crop of cherries and apples next year if the winter is not too severe and spring frosts keep away. How does he know, or on what does he base his opinion?

Can you distinguish between the track of a fox and that of a dog in the snow? How many toes has a dog?

Answer some of these questions and we will print your answers.

#### THE MAKING OF A MARKET GARDENER

One of the most characteristic features of market gardening is its extreme intensive nature. In fact, on this one point success in the market garden largely depends. Not every

soil, not every crop, not every man is adapted to this line of agriculture. This in no way reflects unfavorable criticism on the soil, the crop, or the man, but suggests an adjustment of the round peg to the round hole.

This point is often brought to our attention in the labor problem. A man or boy, who may be a good workman in caring for stock or the larger crops, may work at an actual loss to the gardener. A large part of the gardening work is not heavy or difficult, but it does require rapid work, quick fingers, and a large supply of "stick-to-it-tiveness," or capacity for detail work as the scientist expresses it. The boy or man who is not quick at transplanting would soon make that crop much more expensive to produce than the opposite type of man. The fellow who does not have a keen sympathy with his plants can not care for their wants with regularity and precision and realize the most out of them.—J. H. Gurley in Market Growers' Journal.

#### HINTS FOR HORTICULTURAL SOCIETIES

Local or community horticultural societies thrive exceedingly in Canada, many of them exceeding in membership and extent of work neighboring state societies over the line in Uncle Sam's dominions. Prof. H. L. Hutt of Guelph gives, in the National Horticulturist, some excellent suggestions for making more effective the work of such organizations.

"The twofold purpose of the work of the Horticultural Societies is to benefit the members themselves and the whole community about them. The success of the work, we believe, is usually in direct proportion to the unselfishness of the members in seeking their own good, and their desire on the other hand to benefit the community at large.

We wish to call attention first to some of the means by which the work of the society may be made a benefit to the members.

First, by holding at least four or five meetings during the year at which timely topics are introduced and fully discussed, the members encouraged to introduce subjects themselves and take an active part in all discussions.

#### Hardy Nursery Stock Adapted for the Northwest

We offer a complete line of Fruit,  
Shade and Ornamental stock.  
Varieties that will suit  
your needs.

Berry Plants, Grape Vines  
Asparagus, Rhubarb,  
in the Leading Sorts.

Garden and Commercial Orchard  
Planters will do well to write to us.  
Prices consistent with Quality.

**McKay Nursery Co.,**  
Pardeeville, Wis.  
Nurseries at Waterloo, Wis.

#### Vincennes Nurseries

Vincennes, Indiana

**W. C. REED,**  
PROPRIETOR

Cherry Trees by the  
100 or 100000

The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited

Second, by furnishing good literature in a choice of one or more of the leading horticultural magazines, or good horticultural books, either as premiums or at a greatly reduced rate.

Third, a choice of a small selection of good reliable seeds, bulbs, plants or trees. The premium list should be prepared with a view to enabling each member to choose something of particular value to himself either for house or outdoor culture. Great care should be taken in the selection of



# PREMIUM LIST

OF THE

## Wisconsin State Horticultural Society

The Following Premiums are Offered for Exhibits of  
Fruit at the Annual Convention

Madison, January 10, 11 and 12, 1911

	1st. Pre.	2nd. Pre.	3rd. Pre.	4th. Pre.
1. Best collection of apples, not less than 15 varieties .....	\$10 00	\$5 00	\$3 00	\$2 00
2. Best 5 plates (5 varieties) commercial apples for Wisconsin .....	5 00	3 00	2 00	
3. Best Plate Avista .....	1 00	75	50	
4. Best Plate Baldwin .....	1 00	75	50	
5. Best Plate Ben Davis .....	1 00	75	50	
6. Best Plate Dudley .....	1 00	75	50	
7. Best Plate Eureka .....	1 00	75	50	
8. Best Plate Fall Orange .....	1 00	75	50	
9. Best Plate Fameuse .....	1 00	75	50	
10. Best Plate Gano .....	1 00	75	50	
11. Best Plate Gem .....	1 00	75	50	
12. Best Plate Gideon .....	1 00	75	50	
13. Best Plate Golden Russet .....	1 00	75	50	
14. Best Plate Hibernial .....	1 00	75	50	
15. Best Plate Longfield .....	1 00	75	50	
16. Best Plate Malinda .....	1 00	75	50	
17. Best Plate Mann .....	1 00	75	50	
18. Best Plate McIntosh .....	1 00	75	50	
19. Best Plate McMahan .....	1 00	75	50	
20. Best Plate Milwaukee .....	1 00	75	50	
21. Best Plate Newell .....	1 00	75	50	
22. Best Plate Northern Spy .....	1 00	75	50	
23. Best Plate Northwestern Greening ..	1 00	75	50	
24. Best Plate Patten .....	1 00	75	50	
25. Best Plate Pewaukee .....	1 00	75	50	
26. Best Plate Plum Cider .....	1 00	75	50	
27. Best Plate Seek-no-Further .....	1 00	75	50	
28. Best Plate Scott Winter .....	1 00	75	50	
29. Best Plate Sutton Beauty .....	1 00	75	50	
30. Best Plate Spitzenberg .....	1 00	75	50	
31. Best Plate Tolman .....	1 00	75	50	
32. Best Plate Twenty Ounce .....	1 00	75	50	
33. Best Plate Utter .....	1 00	75	50	
34. Best Plate Wagner .....	1 00	75	50	
35. Best Plate Walbridge .....	1 00	75	50	
36. Best Plate Wealthy .....	1 00	75	50	
37. Best Plate Windsor .....	1 00	75	50	
38. Best Plate Wolf River .....	1 00	75	50	
39. Best Plate York Imperial .....	1 00	75	50	
40. Best peck of each of following varieties: Dudley, Fameuse, Gem, Golden Russet, McIntosh, McMahan, N. W. Greening, Tolman, Wealthy, Windsor and Wolf River .....	2 00	1 00	75	
41. Best Exhibit Pears .....	1 00	75	50	
42. Best Exhibit Crabs .....	1 00	75	50	
43. Best Exhibit Grapes .....	1 00	75	50	
44. Best Plate Seedling Apples .....	2 00			

varieties that they are suitable for the locality.

We believe there is a danger, however, of societies putting too much stress upon their premium lists, thus over-emphasizing the importance of the value of the work to members, and not emphasizing enough the good the societies may do as an educational institution to encourage the work through the whole community.

Read the program carefully and note changes.

So many good things seemed to need discussion that the program has been enlarged to cover three whole days. Note that sessions begin Tuesday morning at nine instead of Tuesday noon.

Send For **PANSY GUIDE AND CATALOG**  
Our ..  
of Flower Seeds and Plants  
**FREE TO ANY ADDRESS**  
**WILLIAM TOOLE & SONS**  
**PANSY HEIGHTS, BARABOO, WIS.**

**Forest Hill Nursery**  
**George Rentschler, Proprietor**

Trees and shrubs for street and lawn. Bulbs and hardy garden plants. A full line of fruit trees, bush fruits and strawberry plants

**Madison - Wisconsin**

**WISCONSIN GROWN**  
**NURSERY STOCK**  
**FOR**  
**WISCONSIN PLANTERS**

A full line of Fruit and Ornamental Stock

**OUR SPECIALTIES:**  
**APPLE AND PLUM TREES,**  
**CURRENTS, STRAWBERRIES**

Get our Price List before Placing your order. Satisfaction Guaranteed

— ESTABLISHED IN 1854 —

ADDRESS

**Kellogg's Nursery**  
Box 77, Janesville, Wisconsin

## RULES OF ENTRY.

1. All entries must be filed with the secretary before 5 P. M., Tuesday, January 10.

2. Fruit must be arranged ready for judges by 9 A. M., Wednesday, January 11.

3. Four apples constitute a plate, no more, no less.

4. Separate samples must be furnished for each entry, except for No. 1, which may include all entries.

5. Competition open to all residents of Wisconsin, but premiums paid only to members. Successful exhibitors, if not members, must forward fee for membership before receiving check for premium; fee for annual membership, fifty cents.

Members or others unable to attend the meeting may send fruit to the secretary, who will make entries and place fruit on exhibition. Transportation charges must be prepaid.

All entries must be made on regular entry blanks which will be furnished by the secretary on application.

For further information address:

F. CRANFIELD, *Secretary W. S. H. S.*

Madison, Wisconsin.

## STUDENTS JUDGING CONTEST.

Twenty dollars in prizes will be awarded to students in the long and middle courses, Horticultural Department, College of Agriculture, for the best scores in identifying and judging varieties of fruit on exhibit.

Under rules prepared by Prof. J. G. Moore.

Final awards to be decided by a judge appointed by the president.

## WISCONSIN NURSERIES

EXTENDS TO ALL READERS OF WISCONSIN HORTICULTURE

## A HAPPY NEW YEAR

¶ We are looking for a share of your business for 1911. While we are not the only nursery, or the largest, or doing the biggest business in the state, yet we are confident that we can save you from 40 to 50 per cent if you deal with us, as we sell direct, employing no agents or middlemen.

¶ Our Mr. W. J. Moyle will give your orders his personal supervision, thus insuring the best of treatment.

## LANDSCAPE DEPARTMENT

PLANS DRAWN. FREE ADVISE.

¶ Write Mr. Moyle if you wish the same in remodeling or fixing up a pretty home.

**Wisconsin Nurseries, Union Grove, Wisconsin**

W. J. MOYLE, Proprietor

**Door**

**County**

**Lands**

ARE THE BEST IN THE STATE OF WISCONSIN

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

**DOOR COUNTY LAND CO.,  
STURGEON BAY, WIS.**

## NOT THE BIGGEST

NURSERY  
PERHAPSBUT WE ARE DOING THE  
BIGGEST BUSINESS

We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

Attractive prices will be made to Market Gardeners and other large buyers of Nursery Stock.

## Our Catalog is an A B C Book

in its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY**  
**Wauwatosa, Wisconsin**

## FORTY - TWO YEARS

**The Jewell Nursery Co.**

Hardy Fruit and Ornamental  
Trees, Shrubs and Plants

Lake City, - - - - - Minnesota

FIFTEEN HUNDRED ACRES

## GRAPE VINES

Largest Stock, Best Varieties, Best Grade. Guaranteed True. We invite correspondence from parties intending to plant.

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## EXCHANGES

Our Society receives in exchange for its publications about sixty weekly and monthly papers from all parts of the country, many of which are filed. In addition we have the following foreign exchanges:

Agricultural Journal, Cape Town, South Africa.

Boletim da Agricultura, San Paulo, Brazil.

Chronique Agricole du Canton du Vaud, Lausanne, Switzerland.

Garden and Field, Adelaide, South Australia.

La Zacualpa Botanical Sta., Apartado 133 Bis. Mexico, D. F. Mexico.

Natal Agricultural Journal, Pietermaritzburg, Natal.

Transvaal Agricultural Journal, Pretoria, South Africa.

The South African and Australian journals are interesting and odd from a north temperate viewpoint. Spring is just past there now and mid-summer rapidly approaching. The Boers have imported lots of things from this country including the Wolf River apple.

## WINTER APPLES OF QUALITY

**Y**OUR attention is called to three great Wisconsin winter apples. Gem City, Tuttle's Winter and Hanko. Quality excellent, will keep in ordinary cellar until spring. Trees are hardy. What more do you want? Write us now and secure some of these trees for delivery fall 1911 or spring 1912. If you delay you may be too late.

We still have a fine line of all stocks that are hardy for this climate. Send us a list of your wants. New Catalogue in January.

## SPECIAL PRICES ON THE FOLLOWING STOCK IN QUANTITIES

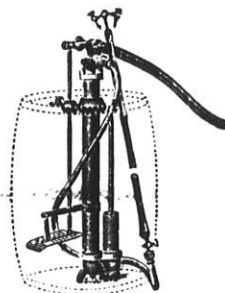
300 American White Elm..... 5 to 6 feet	150 American White Elm..... 8 to 10 feet
200 American White Elm..... 7 to 8 feet	100 European Mt. Ash, 100 Butternut,
100 Black Walnut, 1800 White Snowberry, 700 Spirea Vanhouttei,	

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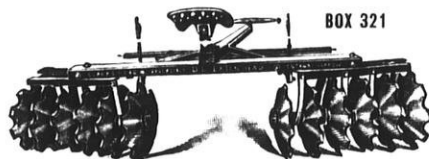


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success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

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<p><b>Red River Early Acme</b></p> <p>Acme is like Ohio but a little earlier and more productive. Our stock this year is very fine smooth, clean and handsome. Plant our famous Red River grown potatoes if you want a profitable crop.</p>	<p><b>Red River Early Ohio</b></p> <p>Early Ohio is the most popular early in the country. Olds' Red River Ohios are unsurpassed for purity, smoothness, fine appearance and strong vitality. We sell thousands of bushels every year. Get our prices.</p>	<p><b>Red River White Ohio</b></p> <p>Similar to Red Early Ohio except in color, which is a fine white, or nearly so. Just as early, just as good in quality and more productive. 557 bushels have been grown on one acre.</p>	<p><b>Red River Triumph</b></p> <p>Triumph is the earliest of all potatoes. Our Red River Triumphs produce the largest yields as well as growing the quickest crops. The seed is not excelled by any other in the United States.</p>
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Olds' Seed Potatoes have a national reputation. 22 years' experience growing and handling; our potatoes are known in every section and we are acknowledged headquarters for pure seed of the best varieties. Send Postal for 88 page Catalog giving correct descriptions and true illustrations of the best in Seed Potatoes, Corn, Oats, Barley, Field Seeds, Garden Seeds, Poultry Supplies and Tools. Prices right.

**L. L. OLDS SEED CO.,** Drawer 65, Madison, Wisconsin

## WANTED

Fruit grower or farmer to raise apple trees on shares or for cash. Grafted roots furnished but nothing else—Also want to hear from owners of land that is suitable for orchards, who would like to engage in orchard developing and selling as a business enterprise, or who merely want to sell their land.

**G. H. TOWNSEND**

Madison, Wisconsin

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

February, 1911

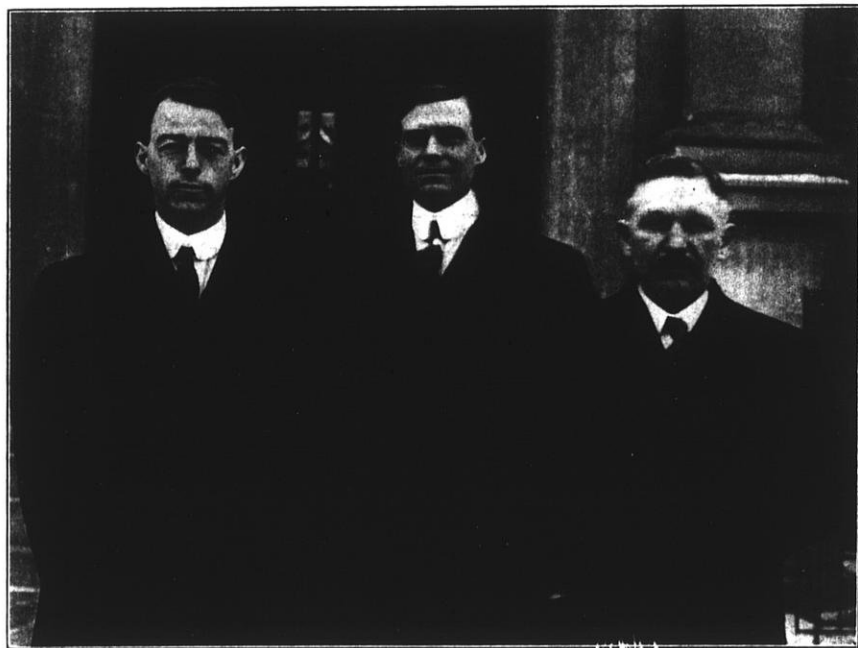
No. 6

## THE CONVENTION

We propose to give but a brief account of the convention. Any attempt to cover the three-day program would require too much space.

There was no skip or break in the program from beginning to end; every one down for a part was present and on time. This is remarkable and unusual. Every number was excellent and it would be an injustice to point to any particular ones as worthy of special mention. The

it happens that there is yet anyone in this state who questions the interest in horticulture and the devotion of its followers he should attend one of our conventions and observe the audience. From Tuesday morning until Thursday evening one hundred or more members sat from beginning to end of each session taking in every word and asking for more. Some of these men came three hundred miles to learn and went home abundantly satisfied.



From left to right; Vice-pres. Richardson, Pres. Bingham, Treas. Kellogg. The Secretary fell off the steps just before the camera snapped.

shorter papers will be published in these columns, one or more each month until the Annual Report appears.

While the attendance was not quite up to that of last year it was satisfactory. Madison furnished many counter-attractions convention week and the usual heavy local attendance was lacking.

If there was anything lacking in attendance it was more than made up in enthusiasm and attention. If

It was a splendid feast of things horticultural and as long as we have such interest shown we need not fear either for the future of our society or for horticulture in Wisconsin.

We will not particularize, everything was good and to those of our brotherhood who did not or could not attend we will only say you missed more than you can realize. Begin now to make plans to attend next year.

## PRUNING ORCHARD TREES

F. CRANFIELD.

Reprint Bulletin No. 8, W. S. H. S., Published March, 1906.

*Pruning is the removal of a part of a plant, in order that the remainder may better serve our purpose.*—Goff in Principles of Plant Culture.

It is the office of the gardener to assist nature. In every neglected tree top may be found evidence of pruning, rudimentary branches that have failed to develop for lack of air and sunlight; branches broken by wind or affected by disease and removed by the processes of decay. This is natural pruning. The skilled gardener anticipates these contingencies by careful and regular pruning.

In order to prune intelligently it is necessary to be acquainted with the principles of plant growth. A brief outline of some of these follow:

### HOW PLANTS FEED.

The food of plants is derived in part from the soil. This crude (undigested) material is taken up by the roots and conveyed through the outer wood layers to the leaves, where by action of the sunlight it is changed (digested) and distributed to bud, branch and root to be used in growth or stored as reserve.

It follows from this that the removal of any large part of the leaves, —pruning in summer,—deprives the plant of its power to assimilate food, —checks wood growth. In like manner the removal of roots, at any season, checks wood growth by depriving the plant of the power to appropriate food.

### BALANCE BETWEEN ROOT AND BRANCH.

Under normal—undisturbed—conditions a balance exists in a tree or plant between roots and top, i. e., a certain number of roots for a certain number of buds and branches.

The removal of one without disturbing the other upsets the balance.



If one-fourth of the branches of a tree are removed during the dormant period when feeding time, spring, comes again the roots send up food for all. The result is greatly increased wood growth, the revival of dormant buds and in some cases growth of sap-sprouts. Conversely root-pruning without a corresponding removal of branches causes a check to wood growth.

#### LENGTH OF GROWING SEASON.

Orchard trees in Wisconsin grow, in length of shoots, but little after midsummer. Growth during the remainder of the season is in the direction of wood maturity, the ripening of fruit, and the development of fruit buds for the following season.

From these facts the conclusion may be drawn that pruning during the dormant season induces wood growth and pruning in summer, i. e., pinching shoots early in summer to check wood growth, or removing branches later in summer induces fruit bearing.

#### CHECKING GROWTH INDUCES FRUIT BEARING.

Any practice which serves to check growth, if it does not interfere with the health of the plant, will induce fruit-bearing. While this principle may not be as readily demonstrated

as the others, it is yet a matter of common observation.

#### BUDS.

Two kinds of buds may be observed on orchard trees during the leafless season, leaf-buds and flower or fruit-



Fig. 3.



Fig. 4.

Fig. 3. Fruit buds of the cherry. Each of these clusters contain one or more leaf buds. On old cherry trees the fruit is borne on the outside of the tree because the spurs in the center of the tree perish for lack of light. An occasional heavy pruning serves to renew the fruiting wood of such trees. Fig. 4. Branches of Green Gage Plum. Figs. 1 to 4, inclusive, from Principles of Plant Culture by E. S. Goff.

In the apple and pear the fruit buds are borne on spurs, i. e., short and thickened branches.

#### HOW WOUNDS HEAL.

The stems of fruit trees consist of, (a) the bark, (b) the cambium layer or sap carrier, (c) a layer of softer sap-wood, and (d) a central cylinder

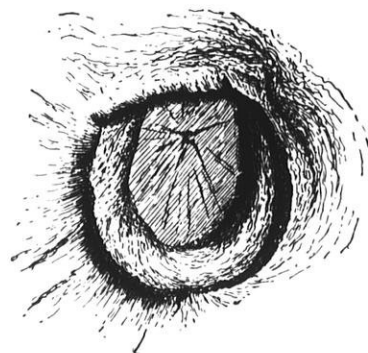


Fig. 5. A ring of callus on the sides of a wound. The callus will in time cover the entire surface of the heartwood. The checking of the wood shown in the cut could have been prevented by a coat of thick paint.

or heart-wood. The heart wood never heals. When a branch is properly cut in pruning the wound is covered with a cushion or layer of woody material called callus. This callus is composed of food material prepared in the



Fig. 6. Showing the wrong way to make the wound in removing large branches, side and front views. The cut has been made at a right angle to the branch rather than parallel with the trunk leaving the smallest possible exposed surface but a stub which will not readily heal, if at all.

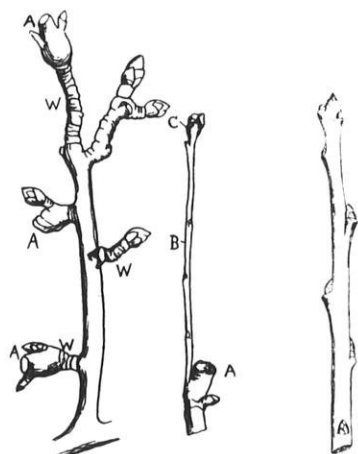


Fig. 1.

Fig. 2.

Fig. 1. Fruit buds of the apple borne on short and thickened branches called spurs. In addition to the plump fruit buds shown each spur bears one or more leaf buds and when the fruit buds fall, or following heavy pruning these sometimes push out into slender leaf bearing branches as shown in the right hand illustration Fig. 2. Leaf buds of the apple.

buds. These may usually be distinguished by a difference in size and position, the leaf-buds, those which in spring will produce only leaves, being smaller than the fruit-buds and lying closer to the branch.

leaves above or beyond the cut.

It follows then that no callus can be formed and no healing take place unless there are leaves beyond the cut to prepare food. Stubs therefore never heal.

IN PRUNING CUT CLOSE TO THE TRUNK  
AND PARALLEL WITH IT.

At the base of every branch will be found a bulge or swelling. In pruning the cut should be made so as to remove this or a stub will result.



Fig. 7. Side and front views of a properly made cut. The exposed surface is greater than in Fig. 6 but the bulge at the base of the branch has been removed leaving no stub. This wound will heal rapidly.

#### DRESSING FOR WOUNDS.

As the heart wood never heals and remains always moist it is essential to cover all large wounds as soon as made with some material which will prevent the entrance of germs which cause disease and decay until the callus cushion or healing tissue covers the wound. For this purpose grafting-wax is a most excellent material. If this is not available lead and oil paint affords an excellent substitute. Wounds under one inch in diameter will usually heal in one season; all larger than this should have a thorough dressing of wax or paint.

#### SPECIFIC DIRECTIONS.

It is difficult to give definite directions for pruning and still more difficult to follow such directions, as every tree and plant possess a certain individuality which must be considered in pruning.

The orchardist's beginning in pruning comes when the trees are planted. Before the tree was removed from the nursery row it had sufficient roots to

supply all of its buds with water. When the tree was dug most of the roots were removed without a corresponding reduction of the buds, thus disturbing the normal balance. As soon as warm weather comes after planting every healthy bud will push out and call for water to feed its new-born leaves. As many of the

We must then reduce these water pumps or buds to correspond to the reduced root-system. An illustration of the method of doing this is shown in Figs. 9 to 12. The drier the ground and the weather the more we should cut off.

#### THE FORMATIVE PERIOD.

Pruning at planting time involves more than the shortening of branches. Whether the future tree shall be high headed or low headed, open center or with a central axis depends in a large measure on the pruning the first season. Orchardists in the Eastern and Southern states prefer a high-headed tree with an open top. In Wisconsin such trees are apt to suffer from sunscald and wind storms. Trees headed 18 to 24 inches from the ground are to be preferred.

Nursery grown trees are usually headed much higher than this, commonly three and four feet, due to crowding in closely planted rows. It is difficult if not impossible in the case of such trees of the apple, pear and cherry to lower the head or induce heading at 18 to 24 inches by pruning at time of planting. The remedy lies in planting younger (two year old) trees or in demanding trees with lower heads. Nurserymen,

roots which formerly supplied these buds have been torn away by the tree digger and the remainder have not yet begun work the reserve supply of

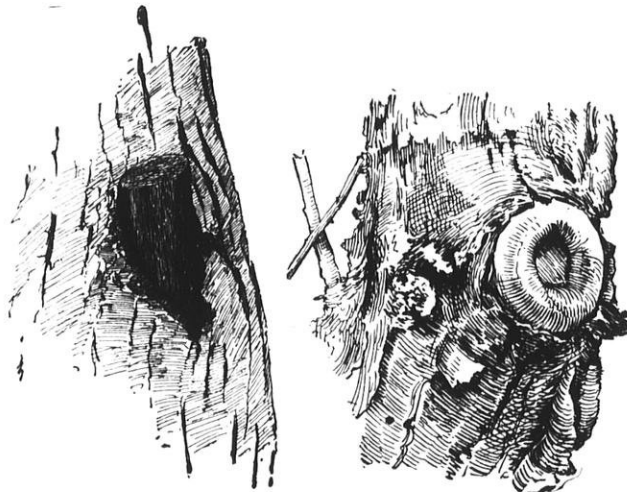


Fig. 8. Improper cutting of limb (left). Proper cutting of limb (right). The stub in the former case will never heal. The decay of such stubs usually extends to the heartwood.

food and water stored in trunk and branch the previous season must be used; if this is exhausted before new roots can be developed the tree will perish.

like other producers, are willing and anxious to provide what the market demands.

In pruning the newly-set tree it must not be forgotten that the frame-

work on which the branch system is built is determined at this time. Aim to leave the main branches, the "scaffold" limbs, spirally about the stem rather than opposite. The lower op-

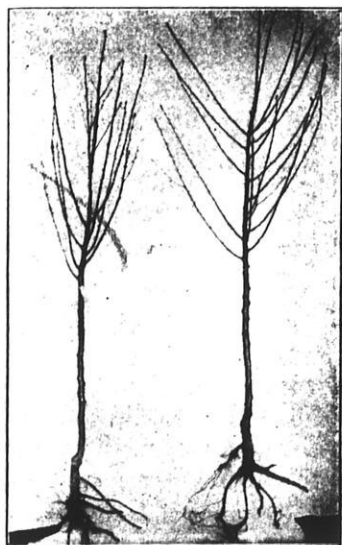


Fig. 9. Good cherry trees.

posite branches in fruit trees form bad forks that may split down later and ruin the tree.

Pruning the second and succeeding years will consist mainly in removing crossing and interfering branches and correcting as far as possible the faults of the tree that it may approach the ideal of the grower. In

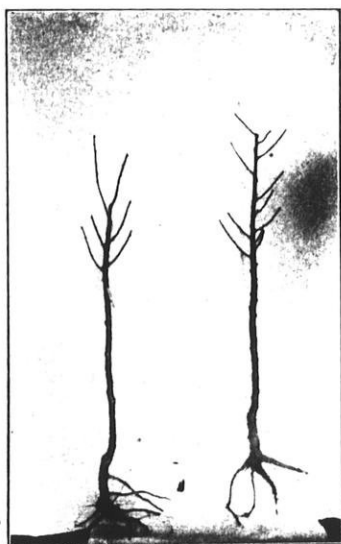


Fig. 10. Trees shown in Fig. 9 cut back for planting.

from two to five years from planting, according to the species, the tree will have assumed the bearing habit and less pruning will be required. It is

not well, however, to entirely neglect the tree in respect to pruning. Regular, annual pruning insures stability, while if pruning is neglected for three or four years followed by heavy pruning the balance of root and top growth is disturbed, resulting in an increased wood growth at the expense of fruit.

#### RENOVATING NEGLECTED TREES.

In pruning such trees the main effort must be directed to thinning the branches. The tops of neglected fruit trees will usually bear a surplus of branches as well as stubs and broken branches. The removal of these will be followed by a heavy growth of wood, a portion of which must be re-

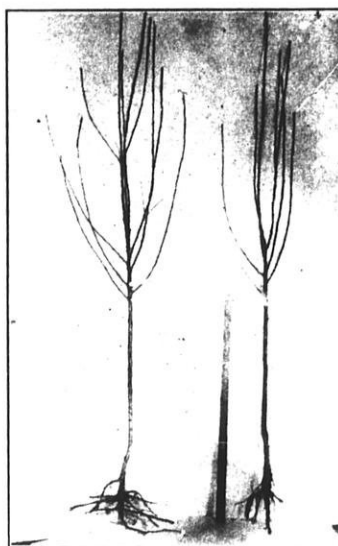


Fig. 11. Good specimens of "three year old" apple trees as received from nursery.

moved the following year, but if to pruning is added tillage and enrichment of the soil the tree will soon settle down to fruit bearing.

#### SEASON FOR PRUNING.

"The conclusion,—and my general opinion,—in respect to season of pruning, so far as the healing of wounds is concerned, is this: The ideal time is in the spring, before growth begins . . . but more depends on the position of the wound in the tree and the length of stub than on the time of year."—L. H. Bailey in *The Pruning Book*.

The most favorable time for pruning in Wisconsin is March and early April, or after the coldest period of winter and before growth begins.

#### SUMMER PRUNING.

Theoretically we may check wood growth and induce formation of flower buds in fruit trees by pinching or cutting back the more vigorous shoots during the growing season, but in

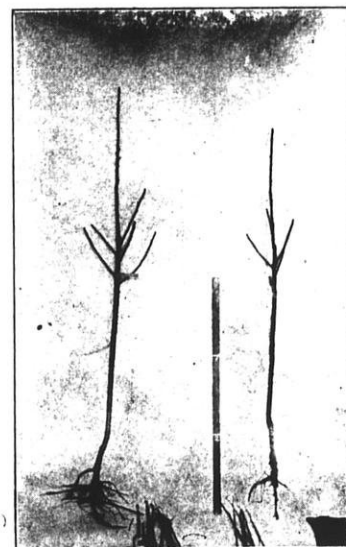


Fig. 12. Trees shown in Fig. 11 cut back for planting. The "leaders" too long in both cases.

practice it is rarely that these objects are attained. If the tips of the branches are removed too early in the season the buds immediately back of the cut will push out into secondary branches, resulting in an increased rather than a lessened production of wood. If pinching is delayed until the active growth has ceased for the season no check to growth will result.

"The greatest success will attend this process if the pinching takes place just at the period when the buds have still sufficient time to swell up and become stored with food material, but when the supply of water



Fig. 13. Pruning knife.

begins to diminish, so that the upper buds do not grow out into long laterals."

"To prevent disappointment, we state emphatically, as the practice is very common, that no fixed rule can be laid down for the commencement of summer-pruning. Trees may even be pinched to death. The favorable

time for this operation depends upon the climate, the soil, the variety, and even upon the individual characteristics of the plant. The cultivator must himself judge whether the shoots have reached such a stage of maturity that an elongation of the uppermost buds will not take place."—Sorauer in *The Physiology of Plants*.



Fig. 14. Pruning saw. A "two edge" saw like the one shown above is thought to be an advantage to prevent "pinching" but it is not a necessity. Key-hole saws with detachable blades of different sizes may be had at hardware stores and are excellent pruning saws.

Pruning after midsummer, when active growth has ceased, approaches in its effect on the tree pruning during the winter and early spring.

#### PRUNING TOOLS.

The tool commonly used in removing small branches is a strong knife with a curved or "hawk-bill" blade; for large branches a pruning saw.

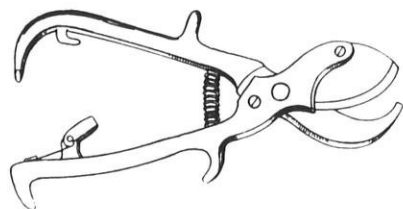


Fig. 15. Pruning shears.

Pruning shears are useful in pruning vines, shrubs, etc., but in pruning trees it is difficult to remove branches with the shears without leaving a stub or crushing the bark on the stem.

#### A BIG LITTLE STRAWBERRY PATCH

Over in South Madison, just across the bay from the city, lives one of our members, Mr. R. A. Phelps, who is a builder of houses but last spring by way of recreation he rented a lot 75x150 feet and planted strawberries.

Last year gross income from this patch of Dunlap and Warfield was \$160.00 and all things considered this was just about net. A large part of the berries brought 20 cents per box. Mr. Phelps may not be able to do as well this year but if this back lot yields only one-fourth as much there will be a good hint for his neighbors.

#### MUST LICENSE NURSERY AGENTS

The State Nursery Inspection Law passed in June, 1909, requires that all nurserymen, dealers or agents selling or handling nursery stock shall obtain a proper license from the Chief Nursery Inspector, Prof. J. G. Sanders, at the Agricultural Experiment Station, Madison. There are many agents working in the state who have not yet secured their licenses and they are hereby warned that compliance with the requirements of this law will be enforced. Farmers and fruit growers are cautioned not to buy nursery stock from any agent or dealer who cannot produce a Wisconsin license valid from October 1st, 1910 to October 1st, 1911. Nursery stock sold by unlicensed parties is subject to confiscation by the state authorities.

#### A CHANCE FOR AN ARGUMENT

The recent convention of the Society held at Madison, Wis., appealed to me as being of greater benefit in an educational way than any I have attended heretofore and a pleasing feature of the several meetings was the lack of debate and agitating arguments.

The meeting would be even more successful if this feature were entirely eliminated. A debate may bring out the best points in oratory but we are not trying to make orators—we are for horticulture—as Secretary Crane field says—first, last and all the time.

The wide awake horticulturist will listen to a speech or paper and then judge it by comparison, at the same time considering how these principles would work out under his local conditions and environments.

Whenever I am obliged to sit and listen to a heated discussion over some insignificant detail, I am reminded of the story which is told of Henry Ward Beecher: "The Deacon and his wife had considerable argument one Sunday morning because that lady was in the act of trying to bring a few streaked grey locks of hair to their original color with the aid of some black dye. The deacon proving by the good book that we are not to charge the color of a single

hair and his wife held that she knew a lot of real good women who use powder and she claimed that this was much more deceptive because she was only trying to hold her own, etc., until the argument waxed so warm it became evident they needed an arbitrator to decide their dispute. So they both agreed to leave it to their minister, the Rev. Beecher. Now when the minister heard their plea he came to this conclusion, that there would surely be one empty pew in his church, if he took sides with either so he answered them as follows: My dear lady, if it bring peace in the family then if you wish you may dye your hair red, white or blue."

When a horticulturist has made a financial success of a certain line of work in his or her locality and these people are so generous and liberal minded that they will travel many miles to come and tell us about it, we should not be so narrow minded as to criticize and waste the precious moments in unnecessary argument.

WM. G. MACLEAN.

#### FRUIT ON THE BARABOO BLUFFS

MRS. L. H. PALMER, BARABOO.

The top of the Baraboo Bluffs has never been considered an ideal location for fruit culture. The high altitude was considered a bad factor, as there is always more or less wind, and I suppose it was reasoned that the trees were liable to be blown away.

I have been told by the early settlers that wild crabs and berries grew in abundance on the bluffs at the time of first settlement, and there was no timber to speak of for protection at that time. Certainly where wild fruit will grow grafted will if given a chance.

The desire for fruit grew as farmers became more progressive and prosperous, and each one commenced setting out a few apple trees and berry bushes with an apologetic remark, "that they did not expect the trees to amount to much, but maybe there would be apples enough for the children to eat and the wife could have some for pies." Those doubting "Thomases" soon learned that those



trees produced an abundant crop of very fine apples; all they needed was proper care to be a very paying investment.

The wedge has slipped in and from those small beginnings, fruit culture is spreading so rapidly that a tree agent remarked at our house not long ago, that they would soon be out of business as every one would have all the trees they could find room for.

Cherries, plums and blackberries do equally well, as the constant breeze keeps away all fungus diseases, and prevents late frosts to a great extent. The snow fall is greater and remains on the ground later in the spring, thus preventing the ground freezing so hard and dry as it does on the hillsides and valleys.

Enthusiasm backed by hustle and progressive methods of cultivation, is all that is required to make the Baraboo bluffs as fine a fruit growing section as the far famed Hood River Valley or our much nearer neighbor, Sturgeon Bay county.

#### A WORD ABOUT WISCONSIN

We are finding quite enough to do in keeping in touch with the rapid development of fruit growing in this state and seldom waste time on the Pacific state boomers. One of them, however, a Manitowoc resident, wants to know about some statements we made in a little talk before the Manitowoc local society and we have been at some pains to explain the situation. At the risk of appearing bumptious we give herewith the questions and answers.

"In an address here a week ago you stated that 'acres of (Wis.) orchards, not single trees,' were producing \$500 per acre from single crops. Kindly tell me where those orchards are located and state whether that is an average for any consecutive number of years. How much did they get per bushel?

"You also stated that western experimental stations report less than \$100 per acre as a return. Kindly designate what state stations did that, send me the bulletin, or, tell me where I can get it and when it was issued.

"You also stated that western apples were selling on the Chicago market for \$1.25 per box. Kindly designate whether that is the best or the cheapest grade. If you cannot send the report with that quotation in it, can you tell me where I can get one like it?

"Will you also state whether or not you have been out west to investigate western orchards?"

*Answer.*—Permit me to say in the beginning that one of the objects of this society is to promote fruit growing in Wisconsin on a sound and substantial basis; to call the attention of our own people to the possibilities in this line within the borders of Wisconsin.

We find many obstacles to overcome in this work but probably the greatest at the present time is the profound ignorance on the part of most of the the people of the state concerning the opportunities for successful orcharding in their own state. This perhaps might be better stated as a lack of faith, brought about by a lack of knowledge. This in turn may be accounted for by the fact that horticulture in all its branches has until recently been almost wholly ignored by our Agricultural College, the source of inspiration in farming in Wisconsin. Dairying and stock raising have absorbed practically all the energies and funds of that institution to the detriment of fruit raising. Notwithstanding this a few men in Wisconsin have been making money raising fruit and these men kept the spirit alive and during the past ten or fifteen years others have taken hold until now we have a very respectable start in commercial orcharding. Almost wholly through the efforts of this Society a very considerable number of people have come to believe that fruit can really be grown in Wisconsin and we are beginning to have hopes of the rest.

Hoping you have had patience so far I will come at once to your questions. I do not now recall whether I said "apple orchards" or merely "orchards" in this state yielded \$300 to \$500 per acre. If the latter the answer is easy and I will give it in a clipping from our monthly journal, WISCONSIN HORTICULTURE. From this

you will see that a yield of \$500 per acre for cherries at Sturgeon Bay is rather low. These yields are duplicated year after year with the exception of the \$836 yield.

In the case of apples it is not so easy to show \$500 yields although these are not unknown. In 1909 a part of the Reis orchards yielded as high as \$675 per acre and other parts (acres) \$475 per acre.

In 1909 portions of orchards (acres) near Baraboo, yielded as high as \$700 per acre.

The average annual yield of a mature apple orchard in Wisconsin, well cared for in the way of cultivation, pruning and spraying, will be from \$200 to \$300 per acre. Dozens of such instances are known. These are gross returns. Regarding prices, the apples in the cases mentioned brought from \$2.50 to \$4.50 per barrel.

The 1909 crop of apples in the Wausau Trial Orchard of this society, planted eleven years, amounted to 2,113 bushels on six and one-third acres, most of which were sold for \$1.50 per bushel. One tree bore fourteen and one-half bushels.

Regarding prices for western apples my figures were taken from the daily reports of the Chicago Produce markets issued by Howard Bartels & Co., 28 Sherman St., Chicago. I will quote a few prices from the November 5th issue the day I was in Manitowoc.

#### Western Box Apples—

Washington or Idaho—	
King David .....	\$1.75 to \$2.25
Spitzenberg .....	2.00 to 2.75
Stayman, Winesaps .....	1.75 to 2.25
Greenings .....	1.25 to 1.65
Wagners .....	1.25 to 1.75
Mackintosh Red .....	1.40 to 1.75
Bellflower .....	1.25 to 1.75
York Imperial .....	1.25 to 1.50

You ask if I have been in the west to investigate the orchards, etc., of that region. To this I must answer, no; it has not been possible so far. As the next best thing I have questioned every person I could meet who has been there and read all available printed matter. Not all the men I have met were liars, the law of chance is against that, in fact I believe most of them were unprejudiced and truthful and from their testimony and from reading I have come to the following conclusions:

(1) A man with sufficient capital, brains and energy can go west and succeed in fruit growing if he sticks to his job. He can do the same thing in Wisconsin.

(2) Most of the activity at present in the west is in the selling of lands rather than raising fruit.

(3) No "syndicate" or company plan of fruit raising like many now being exploited in which a number of small investors receive unit or acre shares or any similar scheme has ever succeeded and there is no reason to believe that the present plans will prove any exception. Vide the California orange groves of the 70's and 80's.

In conclusion I will say that if you are genuinely interested in the development of the fruit business in this state (which I am inclined to doubt) I will take pleasure in giving you such further information as you may desire. If on the other hand you are merely seeking that class of people who are always hoping to become rich without working, the "get-rich-quick" class, I still wish you success. Take them and welcome, we want in Wisconsin only men and women with faith in Wisconsin, who believe that a modest capital coupled with intelligent effort will yield bountiful returns when applied to fruit-raising.

F. C.

#### HOW CAN BETTER RESULTS BE OBTAINED IN A DRY SEASON?

(Continued from Nov. Number.)

As previously stated, in the November number of this paper, a light shower fell July 30 and from that time on we had plenty of rain for melons. I have learned from my experience that they do not require much moisture. Loose, warm, rich soil is what makes those strong vines with large dark leaves that assure you of a good crop. From August 1 to August 19 we had nothing to do in the field but watch them grow which I did with pride and I was not alone wondering what results would follow. The crop was as good as any ever grown in this section and, as many other fields in this locality were almost failures it was watched with interest by many.

August 19 found the first melons ready for market and from that date until October 7 they continued to ripen. They were the largest, best and of the finest quality I have ever grown—the kind the Darkey told the Judge "nobody could help stealing dat was any judge ob flavor." Many of the Osage and Thomas Hybrid weighed from 12 to 14 pounds.

The Emerald Gem is the earliest variety we grow and we usually begin picking these a week or ten days before the Thomas Hybrid which are followed by the Osage. The Gems are packed in peck baskets which hold 8 to 12 melons graded No. 1 and 2. No. 1 brought 50 cents per basket but later dropped to 40 cents and No. 2 brought 10 cents less. The Osage and Thomas Hybrid were packed in bushel crates and boxes and sold by the dozen. These brought from 60 cents to \$1.50 per dozen, according to size and quality. Any melons that would not score No. 2 were used for cow feed as they are excellent for this purpose and are a detriment to the market.

Only experienced help is employed in gathering the fruit, which is done in half bushel baskets and extra help carry to the packing house or lot. The grading, sorting and packing is done out of doors when the weather is favorable. All No. 1 melons that are over ripe, bruised or cracked are used for seed as large quantities are used for this purpose.

This field of melons contained one and one-sixth acres of land, 1782 hills. It produced 10,692 marketable melons which sold for \$515.62, an average of 4 4-5 cents per melon. The total expense of growing and marketing these melons as near as can be ascertained is as follows:

20 loads of stable manure.....	\$30.00
Plowing land previous fall....	2.50
Preparing for planting twice.....	12.00
Seed and planting.....	6.00
Hoing and thinning.....	8.00
Cultivating .....	12.00
Fighting striped bugs .....	4.00
Picking, packing and market-	
ing .....	80.00
Baskets and crates.....	24.00
Total .....	\$178.50

This leaves a net profit of \$337.12.

This is an unusually good result and I suppose many will expect to see my entire farm planted to melons this year but I will plant only the usual amount as we cannot expect such fortune very often.

#### HORTICULTURAL HINTS

By H. H. HARRIS, HORTICULTURIST.

We always like to dwell upon the word Horticulture—whether it is because it begins with the letter H,—or because it calls to mind "The beautiful Apple" or "The luscious Strawberry Shortcake"—the fact remains we like the word and all it stands for—(even the work). We are always glad to be known as a member of the Horticultural Society, and was much pleased to receive the first numbers of WISCONSIN HORTICULTURE. We used to be with you when THE WISCONSIN HORTICULTURIST was issued by the society and was sorry when that was discontinued. Our efforts have always been on a small scale but have been attended with a considerable degree of success.

While strawberries are our specialty in the fruit line, we have had some profitable crops of blackberry, raspberry and also of the apple. In 1909 we had over three hundred bushels of apples on about one acre of ground where there were no apple trees in 1898, and that was not the first crop by any means. This year we only had a bushel or two but our trees look well and promising for the future. With strawberries we have had upwards of \$500 per acre after paying for picking and crates. For several years we have had our plants inspected and have realized about the same for plants sold that we did for fruit from an equal amount of ground.

But the same as it is with everything else there have been seasons where there was more work than profit. We have a good stand of plants for next year's crop, but as a rule in this section the stand is poor on account of drouth.

Mention this paper when writing to advertisers.

# Wisconsin Horticulture

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Remit to Secretary W. S. H. S.  
Madison, Wis.

The register shows 129 members present and many failed to register.

Next year we will begin at noon, 9:00 A. M. is rather early.

That was "some music" Wednesday evening. Yes? Professionals every one; nothing too good for W. S. H. S. members and Madison has the best in the state.

Never again; never will we send out question sheets. One thousand blanks were mailed and most of them came back with one to twenty questions on each. We were simply buried under question sheets. To those who asked questions we can only say, be patient, every one will be answered, in time.

Last month we promised something on pruning for the February number. The front page article is a reprint of our bulletin No. 6 and contains some of the principles of the art of pruning.

This may be a disappointment to readers who are looking for specific information,—first aid to the injured,—but we firmly believe in giving principles first.

Soil and climate are factors of some importance but of far greater importance is "the man behind the tree."

We have omitted the Rogue's Gallery this month, but this does not mean that we have exhausted our list,—merely taking a breathing spell.

## ANNOUNCEMENT

The subscription price of this paper is Fifty Cents a year which, until further notice includes membership in the State Horticultural Society. Send subscription to Secretary F. Cranfield, or WISCONSIN HORTICULTURE, Madison, Wis.

## A CORRECTION BUT NOT APOLOGY

On page 10 of the January number we said that H. C. Christensen of Oshkosh was a wide-awake and progressive gardener which is true, nothing can ever compel us to retract that statement but we also said he was our delegate at the Northern Illinois meeting at Princeton. In that we erred, N. A. Rasmussen of Oshkosh was the delegate.

## CREDIT LIST

We give below names of members who have secured new members during December and January. This is our "honor roll" and is bigger each month. You are next.

### December, 1910.

W. D. Cooke, 1;  
Dr. Chas. Babcock, 2;  
Geo. Trim, 3;  
H. E. Paulson, 2;  
J. M. Schauer, 2;  
F. D. Ward, 2;  
J. M. Kegel, 1;  
W. G. McKay, 2;  
W. R. Abbott, 1;  
C. H. Marvin, 2;  
Mrs F. V. Evert, 1;  
M. S. Kellogg, 3;  
S. B. Mack, 1;  
E. W. Sullivan, 1;  
H. W. Comstock, 1.

### January, 1911.

G. C. Rasch, 1;  
P. T. James, 1;  
Dr. Chas. Babcock, 3;  
H. H. Harris, 5;  
R. J. Coe, 4;  
W. S. Hager, 2;  
Dr. J. Paul Reinhardt, 1;  
A. C. Bennett, 1;  
C. B. Whitnall, 2;  
R. S. Wright, 3;  
Irving Smith, 1;  
E. A. Richardson, 1;  
A. W. Lawrence, 1;  
Mrs. W. H. Richardson, 2;  
C. H. Daub, 1;  
C. L. Richardson, 4;  
C. D. MacGillfrey, 1;  
E. B. Skewes, 1;  
J. A. Hays, 2;  
T. J. Ferguson, 1;  
K. Borgeson, 1;  
A. Gropper, 1;  
F. E. Shestock, 1;  
C. G. Johnson, 1 life;  
C. G. Johnson, 6 annual.

The trunks of fruit trees can be easily and cheaply protected from rabbits by wrapping with heavy paper. Cut the paper in strips four to six inches wide and wrap *spirally* around the trunk, tying top and bottom. Two active men or boys can wrap several hundred trees in a day.

## Questions and Answers

*Question.*—Last year I planted two rods of strawberries and let four runners from each plant remain. Will those runner plants bear fruit this coming season if they have been properly attended to?

Is it the custom to pick fruit from runner plants such as are mentioned above?

Is it profitable to plant strawberries 3 feet between the rows and from 15 to 18 inches apart in the rows and cut off all runners?

What is the value of cow or horse manure in dollars and cents, green upon the ground? I ask this question for the reason I am  $3\frac{1}{2}$  miles from the city limits and 7 miles from the center of population and have a siding  $1\frac{1}{2}$  miles from my land (18 $\frac{1}{2}$  acres).

What is the value of wood ashes per ton upon the land? As I can get them in large quantities during the summer  $3\frac{1}{2}$  miles away?

Would hen-manure and wood ashes in the proportion of 1 to 10 be a sufficient fertilizer without anything else for some years on new land? Or would bone-meal and wood-ashes in proper proportions, say 1 to 5, be better?

I have the land (60 per cent sand with a clay bottom from  $2\frac{1}{2}$  to 5 feet below the surface) a good market within hauling distance (7 miles) on good roads but the question of manure is making me sit up and think.

The literature on the matter of manure speaks of incorporating it with the soil by "working it in." The way we did was to throw the manure broadcast and plow it under. Can it be worked in sufficiently deep with spring tooth drag or disc? Which is the best way? The disc seems to me to be a horse killer.

*Answer.*—(1) The runner plants should surely bear fruit next year and also the mother plant and prize berries too. The common practice is to allow many more than four plants, usually 10 or 12 or even more. If strawberry plants are set  $2\frac{1}{2}$  by  $3\frac{1}{2}$

or 4 feet there need be no restriction as to the number of plants except to keep open an alley of about one foot between rows for pickers.

The greater the restriction on the number of plants allowed to set the larger the berries as a rule but when carried to extremes will reduce the yield below the point of profitable production.

(2) Answered above.

(3) In most small cities manure may be had for hauling; in some places where health officers are active a bonus will be paid by livery men for removing the manure from their stables regularly.

The value of stable manure is debatable and no arbitrary figure can be placed on it. Chemists will figure out formulas and set values on the nitrogen content, etc., etc., but often neglect to tell us that the most valuable function of stable manure is entirely aside from its mineral content, i. e., its humus content and its action as an indirect fertilizer; further the mechanical effect, if such a term is allowable, on heavy soils is often of greater value than its mineral content.

(4) Hardwood ashes contain potash in a readily available form the amount varying from 5 to 40 per cent. Lime is also present, usually about 30 per cent. The market value of the ashes will depend entirely on the amount of moisture, dirt, etc., contained and may range from five to twenty dollars per ton.

(5) A rational formula but scarcely suited to successive cropping but on new land, light sand soil, would no doubt tend to increase yields of small fruits.

The most practical method of applying stable manure is to plow under as described, but well rotted stable manure may be worked into the soil with spring tooth harrow or disc. The ordinary 12 wheel disc requires three good horses. Concentrated or commercial fertilizers are usually applied as a top dressing and "worked in." Potato fertilizers are usually placed in the furrow or drill at planting time.

The selection of varieties given is most excellent.

## WHAT DO YOU KNOW ABOUT THIS?

I read the questions for boys and girls in HORTICULTURE and wish to try to answer some.

The following birds winter in Forest County: English sparrow, blue-jay, Canada jay, partridge, woodpeckers, snow bunting, crow, owl.

A cat comes down from a tall tree tail first until he is near the bottom when he turns around and jumps the rest of the way. If it is a very small tree, he jumps down head first. A squirrel comes down head first.

Our dog has five toes on each of her front feet and four on each of the hind feet, making 18 in all.

Yours truly,

PERRY SMITH.

Crandon, Wis.

Very good indeed but we are not quite satisfied about the birds. Wisconsin is a big state and some of our boys in the southern part can no doubt add to this list.

That is all right about the cat and the squirrel but we must admit that up to date we haven't settled the dog question.

We caught the dog all right but when we started to count his toes the trouble began. How did you manage it Perry?

Our natural history editor says we should use chloroform in the beginning,—instead of an ax later on.

Mr. Cleerman's evidence on fall planting in this issue is direct, positive, and seems conclusive for his conditions.

In the Bayfield region where, on account of the early and heavy snows the ground rarely freezes, fall planting has been very successful. In southern Wisconsin fall planting of fruit trees is almost certain to result in heavy losses and often entire failure. All of which shows that Wisconsin is a big state.

A list of the new officers and Executive Committee will be found in the usual place on Page 8. Mr. Bingham is probably the youngest president ever elected, certainly since 1871 and Mr. Richardson one of the youngest vice-presidents.



## Local Societies

(Continued from January number.)

With respect to the benefit of local horticultural societies to the communities in which they are organized, I would like to call attention to some of the means by which the work may be made more effective:

First, by interesting school children through the distribution of seeds, bulbs, and plants for growing either in their home or school gardens, wherever these may be established. In connection with such a distribution, there might be held a flower show to which the children could bring their flowers and plants for competition, thus arousing enthusiasm and keeping up the interest in the work.

Second, interesting citizens in beautifying their home surroundings by instituting lawn and garden competitions. Such have proved valuable in encouraging civic improvement in Guelph and in many other sections of the country (Canada), and might be adopted to advantage in many others.

Third, interesting all citizens by meetings and the use of the press in the general improvement of streets and walks, grading and keeping of boulevards, planting and care of shade trees, removal of unsightly fences, buildings, and bill boards, checking telegraph and telephone companies in their unlawful mutilation of street trees, and pressing for the removal of overhead wires wherever they enter the town limits or interfere with street trees.

These are some of the objects which every Horticultural Society should aim at for the good of the whole community.

To accomplish the best results there should be united effort. The officers of the society should try to get the hearty and active co-operation of every influential citizen and organization in the community. There is strength in numbers, and Horticultural Societies may add greatly to their strength by getting the co-operation of teachers, school boards, boards of education, boards of trade, town

or city councils, and especially committees, boards of commissions having in hand the care of parks, streets and boulevards.

The work of the societies may be made more effective by the more extensive use of printers' ink, in properly advertising meetings and reporting the proceedings more or less fully in the local papers. We find, as a rule, the societies which are doing the best work are those in which the newspaper men are prominent members, where they use their ability in this particular to place the work prominently before the public. A strong effort should be made by every society to secure the hearty co-operation and support of the local newspaper men, and where these are not to be depended upon the secretary should see that meetings are duly advertised and good reports published."

### WASHBURN NOT SO SLOW

The city of Washburn is in Bayfield county and if its citizens continue as they have begun it will also be on the map horticulturally. A local society was organized December 27 with 53 charter members and much enthusiasm. The secretary, Mr. Geo. F. Morgan, represented this, our youngest child, at the convention.

### SOMETHING ABOUT WASHBURN CO.

I received WISCONSIN HORTICULTURE and read it through at once. I like it very much. If you will look at the map of Wisconsin you will find in Washburn county ideal conditions for fruit growing. I have traveled in that county more or less ever since the railroad went there and I can show you the finest apple orchards I ever saw and the finest plum trees in bearing I ever saw in the state in that county and believe wherever you find such numerous lakes and streams and hard wood—maple, white oak, red oak, ironwood, basswood, etc., and such deep lakes that give out heat and moisture, and streams that run all winter, and ridges of clay and gravel or sand mixed with clay in all northern Wisconsin, there is our future fruit belt. The land is cheap and productive. I know such healthy

trees would not grow there if the climatic conditions were not the best.

A. C. BENNETT.

### EAU CLAIRE COUNTY ALSO

We have previously mentioned the Starr orchard in reports concerning orchard expansion in this state but fear we have not been very explicit.

The following from Mr. Starr shows clearly that not all the good fruit land in Wisconsin is located in one county and quite as clearly that confidence in Wisconsin's resources is extending. While Mr. Starr makes no positive statements as to his future plans one sentence is very suggestive: "The lands I have reserved for this orchard planting amount in all to over 500 acres."

"An answer to your letter inquiring in regard to the Wisconsin orchard in which I am interested has been delayed by my absence in the East.

"The lands I have reserved for this orchard planting amount in all to over 500 acres situated in Dunn County, Wisconsin. This is a limestone country, and part of what was formerly known as the 'Big Woods' of Dunn County, it being a distinctively hardwood region. The country is hilly, and we have selected so far as possible plateau land sloping toward the north. We have incorporated the company, which is known as the Weston Orchard Company, Mr. S. Running of North Menomonie being interested with me, and because of his long experience in nursery and orchard work is the manager of the venture. We have planted about 80 acres to apple trees all together, but unfortunately a large part of one forty was badly burned this last month by fires which escaped from the surrounding cut-over wood land so that we shall have to replant the greater part of that forty acres. We now have another forty acres almost cleared, and expect to start planting that next spring. For several years I have watched with great interest the small orchards planted by farmers in that vicinity, and have been surprised at the productiveness of the young trees and the beauty and quality of the apples. Having several thousand

acres of land in that town, I was naturally interested in finding a use for it, and this led to the experiment which we are now making."

#### A GOOD WORD FROM MENOMONIE

I am experimenting a little with apple trees on a high hill, mostly Wealthy, about four hundred in number. I think it is about the highest located orchard in Wisconsin. Trees planted three years ago all doing well. Land is in the wild state, only brush and trees cut away.

I spade around the trees four to five feet each way from the trunk. The hill slopes northwest and southwest. Would have got quite a lot of apples if it had not been for that horrible 23rd of April last; 12 degrees below all day. I got some apples in spite of all the freezing but on the southwest side the trees were almost frozen to death.

I never saw such large Wealthy as we got from that steep hill. Of course I put sheep manure and ashes around the trees. I suppose that helped some. Wealthy will keep here in a common cellar, if wrapped in paper, until the first of April in good shape.

I am an old crank on flowers and evergreens. I have twenty-seven beds of tulips all in good shape; two hundred bulbs to the bed.

I have thirteen different kinds of evergreens on my place. Siberian Pyramidal and Globe Arbor Vitae are as hardy as an oak here. The Bull-pine that Mr. C. S. Harrison is recommending so highly is worthless. It is not ornamental and a slow grower. They say it will grow to one hundred feet. I think it will take a good many generations to look on while it is doing so.

Austrian pine is away ahead of it. Concolor and Douglas spruce are very nice trees. The Blue Colorado will take the cake every time. I have seen the article in our December magazine from Mr. Sam Running, stating that in time we will grow all those tender varieties of apples here on the table lands. Mr. Running and all of us will be dead by the time we will grow them; too cold here. It was thirty-five below zero on January 3.

We have deep snow here; we got ten inches Sunday night, January 1.

It will go hard with apple trees this winter. Ground is dry as flour for two and a half inches. If you ever come through this part of the state come and see us. I live six miles east of Menomonie. There will be an interurban road built through here past my place from Menomonie to Eau Claire.

I am an old German sixty-two years of age, never had any schooling, only what I picked up here and there.

Truly yours,

CASPER REMEL.

Menomonie, Wis.

#### BUYING AND PLANTING FRUIT TREES

As I have often heard a discussion as to which is the best time to buy young fruit trees for Wisconsin planting, either in spring or in the fall, I will give my experience along this line of horticulture.

In the fall of 1895 we set out a lot of fifty apple trees. And out of these, about forty never showed any sign of life in the spring, and the balance never amounted to anything. The spring following, we set out a lot of one hundred apple trees, and about ninety of these are fine trees today.

These trees were bought of the same nursery, planted by the same party and the same way as those planted the fall previous.

A good many nursery men advise planting in the fall, but I would advise planting in the spring, as I have seen that we were the most successful by so doing.

Another subject I would like to give my experience on is "Buying nursery stock in your home state."

I would not buy any stock from outside firms if I could get first-class stock at home. We have bought apple trees of a New York firm, and only a small per cent of them grew; and those that did grow, died off within two years.

For success in our state, I would, as far as I have experienced, plant in the spring only, and buy my stock from some reliable Wisconsin firm, as I believe that you can buy just as

cheap at home as you can from any outside firm, and your trees will be more acclimated and give you better results.

I would be pleased to have some one give their experience on this subject in the next issue of HORTICULTURE.

AUGUST CLEEREMANS.

Green Bay, Wis.

President Bingham! He wears his honors lightly.

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**BACK TO THE LAND**

A magazine that does not have one or more articles in each issue on the joys of country life or a Back to the Land cry is out of date these days. Most of it is not practical, but an article by H. W. Collingwood in a recent number of the Metropolitan appeals to us. We give extracts herewith:

Is it not possible for a city man to make a success on a farm? Yes, but you must let me give my definition of "success." Not one in ten thousand can expect to make a fortune on a farm, except perhaps in a case where land rises rapidly in value. I know all about these stories of mighty crops and large farm incomes. They may be true, but they are isolated cases where the conditions were just right, either through accident or special training, to make the one happy chance out of 1,000.

What can the city man expect in the country? The possibilities are home, health, and a fair competence, with independence and peace of mind. Have you these things now, or could life really give you greater things? They are all very possible on a farm. Your city man will expect more, when, if he would but realize it, these things cover all there is of life—more than the millionaire can buy.

In fact, as the coldest dash of cold water, I would, to begin with, tell the city man, that, unless he is a philosopher and can find contentment in humble things, he would better stay where he is.

I have known city men to locate in the country with very large ideas. They promise to "show these old fellows how to farm" long before a furrow is turned. They have a sad awakening; for somehow, in spite of their apparently careless methods, these "old farmers" have the experience which enables them to take a living from the land. There is a sort of "instinct" which comes from the soil, and which the city man, surrounded by bricks and stone, cannot yet realize.

There never was a better time than right now for a sensible man to move from city to country. The movement has been away from the farm until

prices of all kinds of food and fiber are high. There is nothing in sight to indicate that prices will be greatly reduced by increased production. A crop well grown and handled with good business judgment will be reasonably sure of sale at a fair price. There never was a time when it was so easy to learn new methods and the principles of scientific farming. A man starting now may receive at once the benefit of thirty years of the experience and study of good farmers and scientific experts.

Thus prices and opportunity have met at this time, and with them comes the beginning of the most searching investigation of the relations between producer and consumer. As it stands, the producer averages about thirty-five cents out of the consumer's dollar. We shall learn how to obtain more than this. And so, if the city man has the courage and also comrades to face the situation, he may reasonably expect to find in the country—home, health, and fair competence.

But what do I mean by comrades? Wife and family! The average city man eats his breakfast and hurries away to work. Few of them return for lunch. At night he comes back to his flat or small apartment. During the day wife or children have much to amuse them. The town is alive with noise and movement. The constant panorama of life spread out before them in the streets and stores is full of excitement and interest. There need be hardly a dull hour when the ordinary mind will be driven back upon brooding memories. The average city woman does not realize how much this noise and excitement mean to her until it is denied. In the solitude of the lonely farm, the members of the family are driven to themselves for society or entertainment. They must be true comrades or the home will fall. I cannot think of any harder position for a city man than to locate in the country, and then find that his wife and daughters are not true comrades in the enterprise.

The man has invested his money in the farm. He bought it cheap because it was considered unsalable. His only hope of getting his money

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If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

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**FORT ATKINSON, WISCONSIN**  
**Wisconsin's Largest Nursery**

out is to improve the land by a long and patient plan of work. Winter comes with storm and cold. The family is shut away from neighbors and friends. Instead of the regular pay envelope every week or month, there can be no income until something is sold. The man, full of future plans, and feeling much like one out of the slavery of the treadmill, has faith to light the gloom; but to the city woman the loneliness and pinch of economy comes like a shadow on her soul. If she cannot rise above it and throw it off, she will begin to complain and grieve, and then, unless by some mighty effort she can overcome it, the enterprise is doomed; for no man, no matter how stout of heart, can face the struggle successfully without cheerful comrades in his home.

It is not so much a question of his own strength and ability to work and endure, as of his wife's ability to be cheerful and brave for the first few years of silence and solitude. In the great majority of cases I have studied, the women of the family are chiefly responsible for either success or failure in the city man's battle for a country home. Women are the homebuilders, and, as I have said, about all that may be fairly expected from such an enterprise is home and what it stands for.

You city men of moderate means may have ambitions, but if there be gray in your hair you must realize the ultimate end of the bookkeeper or salesman or clerk of average capacity. As business is now conducted, there is small hope that you can acquire a business of your own. Ten years from now there will be nothing for you in the city that could justify you in talking like the man who has made good in the country. For it is a fact that, as things go today, the average man has small chance for an independent business except on a farm. With courage, comrades, and a fair amount of cash, these are sure possibilities in farm life.

This is the great business change that is coming to farmers in the near future—closer relations with consumers, and a larger share of the dollar. The city man will go to a farm without the old prejudices

which have proved a drawback to many farmers. Co-operation is to play a large part in future farm produce selling, and men from the city are needed to help bring the farmers in a community together. City men, too, are in the habit of co-operating, for city life weaves and knits the fortunes of men together. So that the city man may carry a message to the country as well as find hope and help there. The old pioneers found a wilderness and tamed it by hard, brutal force. The modern pioneers are the town men who may take up old farms from which spirit and ambition have fled, and make them productive.

There is a good chance for argument as to whether a city man should buy a well-improved farm at a high price, or some neglected piece of land much cheaper.

My advice would be to try the unimproved land, and save the difference for the working fund. The neglected land will cost less money, because farm property is sold on the basis of what it produces.

In one case that I know of a jeweler whose eyes gave out at fifty-four, bought eighteen acres of low swampy land in New Jersey. This land was cheap because others before him had failed to make it produce. This man devised a plan for drainage, and for a number of years he took annually over \$4,000 worth of crops from that farm. The older farmers could not do it, because they could not break away from old habits and prejudices. They claimed that nothing but a duck would live on that soil. The newcomer, free from any such notion, drained the soil and made it fit for hens.

Everybody missed Dr. Loope at the convention. Our old-time friend is spending the winter at Eureka Springs, Ark. He was absent but not forgotten as shown by the unanimous adoption, by rising vote, of a resolution directing the Secretary to send him greeting by wire. Doc. will be pleased to hear from old friends. Write in care of Dr. R. G. Floyd

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Cherry Trees by the  
100 or 100000

The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited



## THE MARKETS

While we do not expect to maintain a regular market column we will, from time to time, give our readers an idea of prevailing wholesale prices. These quotations are from a reliable source.

Chicago Market, Jan. 21, 1911.

Apples: Barrel stock New York and New England.

Baldwins .....\$3.50@4.00  
Baldwins, fancy ..... 4.25  
Greenings, common ..... 4.25@4.50  
Greenings, fancy ..... 5.00  
Winesaps ..... 3.75@4.00  
Spy, fancy ..... 5.00@5.50  
Western box apples:

"A fair movement is reported in Western boxes. Good stock is held steady but there is considerable over-ripe fruit on hand which is being disposed of at low prices."

Baldwins .....\$1.10@1.40  
Winesaps, outside for  
fancy ..... 1.50@2.00  
Jonathan, choice ..... 1.50@1.75

Our readers are requested to scan these figures closely and bear in mind the fact that the boxes of choice Jonathan selling in Chicago for \$1.50 nets the grower about 29 cents a box.

A car load of choice Hood River apples sold in Madison recently at \$1.50 per box *retail* after being sorted. The culls brought 50 cents per box.

Subscribers are warned to keep an eye on the delinquent notice Page 8. A blue pencil mark means that you will receive no more papers until you pay up.

Fifty cents is the price for the present.

When cleaning snow from walks or roofs avoid covering the shrubs or bushes you planted with so much care last year. Dry snow may seem light and fluffy but when it partially melts an icy mass results which will destroy the beauty of your plants.

Photographs of gardens, home grounds, orchards, etc., are always acceptable. We cannot pay for these but sometimes it is worth the price to appear in WISCONSIN HORTICULTURE.



# GOULDS

## RELIABLE SPRAYERS

Only thorough work with the best machinery will accomplish the best paying results from spraying.

You *must* spray if you would have perfect fruit, and it doesn't pay to bother with a cheap outfit. It means no end of trouble and it's too risky—you have too much at stake.

Goulds Sprayers have proved their superiority by years of service. We make the sprayer best suited to your conditions. It will last for years because all working parts are made of bronze to resist the action of chemicals. "You can depend on a Goulds" to work when ever and as long as you require.

**Send for Our Booklet:**  
"How to Spray—When to Spray—What Sprayers to Use"

It discusses the matter thoroughly. It gives valuable spraying formulas and tells how and when to use them.

**THE GOULDS MFG. CO., 000 W. Fall St., Seneca Falls, N.Y.**  
We Make both Hand and Power Pumps for Every Service

## WANTED

Man to develop a fruit farm near Fish Creek, Door County, Wis. Twenty acres to be planted with trees this spring. Must be able to do general farming and not above clearing timber land and other work necessary in developing a farm out of 120 acres of new land. Fair salary, to be increased with his success : : : :

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Send 15 cents in stamps and we will mail you a package giving full culture directions, as also our Mammoth seed catalog free; or send 21 cents and get, in addition to above, 10,000 kernels unsurpassable vegetable and flower seeds—enough for bushels of luscious, different vegetables and brilliant flowers.

**JOHN A. SALZER SEED COMPANY**  
768 South 8th St. La Crosse, Wis.

## WINTER APPLES OF QUALITY

YOUR attention is called to three great Wisconsin winter apples. Gem City, Tuttle's Winter and Hanko. Quality excellent, will keep in ordinary cellar until spring. Trees are hardy. What more do you want? Write us now and secure some of these trees for delivery fall 1911 or spring 1912. If you delay you may be too late.

We still have a fine line of all stocks that are hardy for this climate. Send us a list of your wants. New Catalogue in January.

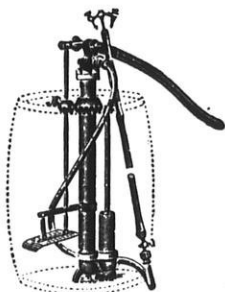
## SPECIAL PRICES ON THE FOLLOWING STOCK IN QUANTITIES

300 American White Elm.....5 to 6 feet	150 American White Elm.....8 to 10 feet
200 American White Elm.....7 to 8 feet	100 European Mt. Ash, 100 Butternut,
100 Black Walnut, 1800 White Snowberry, 700 Spirea Vanhoutte,	

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BLACK RIVER FALLS, WISCONSIN

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success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

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Madison - Wisconsin

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Price \$20.00 Per Acre.

Also a splendid cranberry marsh in bearing on a stream passing from one lake to the other. Also Bennett's Jumbo cranberry vines for sale by the ton or bale. Write at once to

**A. C. BENNETT,**  
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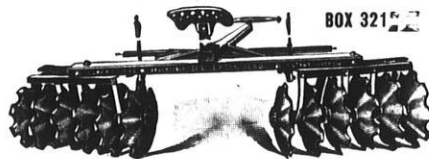
# Door County Lands

ARE THE BEST IN THE STATE OF WISCONSIN

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : : :

**DOOR COUNTY LAND CO.,**  
STURGEON BAY, WIS.

## CLARK'S CUTAWAY HARROWS ARE WONDERS



BOX 321

Two-Horse Single Action Cutaway Orchard or Farm Harrow with Extension Head, Reversible; also One Horse Size. Also Double Action Steel Jointed Pole Cutaway Harrows. (Can be Extended.) For Orchard and Farm. Send for Catalogue. If a Fruit Grower, send for our New Catalogue of Fruit Growers' Supplies.

**E. G. MENDENHALL,**

GENERAL DISTRIBUTING  
Agent for the West

**KINMUNDY, ILLINOIS**

## OLDS' 1911 SEED CATALOGUE IS NOW READY

*It tells the truth and shows things as they are.*

We have a New Barley this year, the "Sweepstakes of the World," developed at the Wisconsin Experiment Station from the famous Oderbrucker.

Krueger's Blue Ribbon Wheat secured the Highest Award as a Milling Wheat at Omaha last year in competition with the whole Northwest. Originated in Wisconsin and adapted to our conditions.

Olds' Golden Russet and Pat Murphy are two new potatoes that were introduced this year. See what the catalogue says about them.

Fancy Montana Alfalfa and High Grade Clover, Alsike and Timothy are specialties of ours. Ask for prices and samples.

We want your orders. Write at once for a catalogue. Call at our store when in Madison and see what we have. We have Garden Seeds of all kinds. Also Tools and Poultry Supplies.

Drawer 65 **L. L. OLDS SEED COMPANY,** Madison, Wis.

It was a hummer from beginning to end.

## "None Better Seeds" FOR THE GARDEN

## 2c. A PACKAGE

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## DROP A CARD FOR Flansburgh's Strawberry Catalog for 1911

Reliable, Interesting and Instructive  
Highland, St. Louis, Golden Gate  
and all the best varieties—Address  
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Hardy Fruit and Ornamental  
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**FIFTEEN HUNDRED ACRES**

## 60 VARIETIES STRAWBERRY PLANTS

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Grown on ground which produces quality rather than quantity

## The Great Northern Nursery Co.

Sells First-Class

### Wisconsin Grown Trees

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Every tree and shrub is packed entirely under cover, free from exposure to sun and wind.

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Write for Catalogue and Price - List.

## Three rousing big crops of SALZER'S Alfalfa

We have sold enough of this seed to sow half-a-million acres and every purchaser has been enthusiastic about it. Ex-Gov. W. D. Hoard of Wisconsin writes "I like the quality of your Alfalfa Clover very much. On 30 acres I raised over \$2500 worth of Alfalfa Hay. There is no better money crop that I know of."



You sow Salzer's Northern Grown Alfalfa and get three rousing big crops, in May, July and August, besides having the best of pastures. It will do this on any farm in America where Timothy will grow. Get full particulars. Write for our 1911 catalog. It's free.

**10 PACKETS OF FARM SEEDS 10¢**

Here's our great trial collection at one cent a package, composed of *Speltz*, the cereal and hay wonder, *Silver King Barley*, a world beater with 173 bu. per acre, *Bonanza Oat*—swon four farms in 1910—biggest swon to yield 259 Bushels per acre! *Billion Dollar Grass*, the ten ton grass wonder, *Salzer's* luxuriant *Alfalfa*, and five other packets, all ten for 10c in stamps. Write for this collection today and we'll also send you a free copy of our great 1911 catalogue.

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## Arsenate of Lead, Lime—Sulphur Solution

Fully Comply with most rigid requirements of Insecticide Act of 1910



Grasselli Arsenate of Lead is being successfully used to destroy all leaf-eating insects, such as Codling Moth, Potato Beetle, Curculio, etc.

The Grand Sweepstake prize of \$1000 for the best carload of apples shown at the National Apple Show, Spokane, Washington, has been won by users of Grasselli Arsenate of Lead for the last three years.

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The best plant-maker, most healthy, vigorous, productive, and the best seller of forty varieties grown by us the past eight years. The La Follette is a seedling of President McKinley and originated in our nurseries, being selected from several thousand seedlings grown by W. J. Moyle as the best in the lot. We have tried it out under all conditions, and it has proved a winner every time, out yielding all others, being large, firm, good color and bringing the top price on the market.

Price 50c per 12, \$2.00 per 100, \$15.00 per 1000

50 and 100 Rates by Mail Postage Paid

### Special Offer to Readers of the Wisconsin Horticulture

To every one placing an order for 100 La Follette strawberry plants before April the first we will give free any one of the following premiums: 12 Stevens Late Champion strawberry plants, 5 Hardy grape vines assorted colors, or 5 Dudley apple trees one year grafts.

**Wisconsin Nurseries, Union Grove, Wisconsin**

W. J. MOYLE, Proprietor

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

March, 1911

No. 7

## ADDRESS BY DEAN RUSSELL AT THE ANNUAL CONVENTION

It is with pleasure that I come before you to extend the greetings of the university, as the mayor of the city has done with reference to relations existing between this society and the city.

The relations between the College of Agriculture and the State Horticultural Society have been of great mutual help; from the time of our dear friend, Professor Goff, who was the first professor of horticulture at the university, down to the present time there has existed a warm relation between the work of the College of Agriculture and that of this society. This society we of the university consider in the light of a parent, and I think we may look upon the development of the work of horticulture at the university as in a sense your child. That work has been expanding from its inception until at the present time it bids fair to take a position with reference to horticultural development that is commensurate with the attitude which the whole subject of horticulture is taking in the nation at large. Just now there is being constructed an adequate building for the housing of the department of horticulture. The main building is now in the process of erection, and the greenhouses and potting houses connected therewith are already built. Unfortunately a few weeks ago we suffered from an incipient fire which has delayed the occupation of the greenhouses and the potting houses for a few months, but inside of two or three months' time that damage will have been repaired and these aids to the instruction and the research work of the College of Horticulture will be available. It is to be hoped by the opening of the college year next fall that the main unit of the horticultural buildings will be completed.

These additions to our resources will cost somewhere in the neighborhood of about \$70,000. Now, that represents a big development for horticulture at the university from the days when Professor Goff was there, many years ago. It used to be considered that horticulture was a sort of side

periencing a stimulus in this subject throughout the whole nation at large. People are beginning to pay attention to horticulture as a commercial proposition. The enormous increase of interest, not merely in the west, where it has been perhaps accentuated more than in other



Dean H. L. Russell

issue at the university, that work in horticulture should take a back seat in comparison with some other phases of agricultural industry. The same view has more or less prevailed through the state at large with reference to the development of horticulture, for as one looks back, fruit raising has been generally regarded as a side issue to the general business of farming. We are now ex-

portions of the country, but throughout the Mississippi Valley and the East witnesses a remarkable change in the minds of the public relative to the importance of the industry.

Now, as long as horticulture was considered as a side proposition, where the farmer simply planted out a few fruit trees in order to get the necessary product for his own purposes, and where he marketed the



excess, naturally but little care was taken under those conditions, and the result was that horticulture languished, as we might expect that it might languish under that condition of affairs. But with the development of horticulture along these lines has come the introduction of the fungous and insect pests which now ravage our orchards and horticultural crops, so that it is no longer possible for a man to plant any considerable number of orchard trees, or even small fruits and have them exempt from the ravages of these insect and fungous pests. I am speaking now of portions of the country that are more thickly settled, for here and there in the newer portions of the country it is still possible.

Last year I was in the northern part of the state, back something like twenty miles from a railroad, and there I found a section of the country where there was a small community in which they were growing some of the finest McMahan apples I ever saw. I said to the man with whom I was staying, "Can you grow those apples up here right along?" He said, "Yes." I said, "How many have you got?" He said, "I have ten barrels of those in my cellar." There they were, great big magnificent fruit, absolutely free from all blemish. I said, "Of course you spray?" I wondered how a man way back there in the back woods had learned how to spray. He said, "I don't know anything about spraying." I said, "Do you mean to say that you grew those apples without giving them any more care and attention than the average farmer would give them?" He said, "There are my trees and that is all I do for them; I planted them and they are growing this fruit." That is possible twenty miles from a railroad, way back there in the country, where these insect pests have not been introduced, but you open up that country like the southern part of the state is opened up, and it will only be a short time before McMahan apples will be covered with the codling moth, the same as our fruit.

With this development of horticulture that has come up in this small

way, we are now meeting a set of conditions which is calling for an entire change of front. The distribution of these fungous and insect pests is practically making it impossible for satisfactory fruit to be produced, unless they are attended to in the right way, and that is bringing about an entire change in horticultural procedure. From many points of view it is a good thing to have to combat these pests, because it teaches us the necessity of utilizing the best scientific means for control, and gives an opportunity for the use of brains. If we had none of these pests there would soon be such an overplus of fruit that the market would go down to practically nothing. They say that the price of hogs, for instance, is determined by the amount of hog cholera that exists. Now, if we have got hog cholera, we know how to combat it, and the man who intelligently combats hog cholera can get the prices that are now paid for hogs, whereas the man that does not use brains in that connection suffers the penalty which ignorance has to pay.

In the early days of fruit raising, a similar condition obtained, but with the widespread dissemination of these fungous and insect maladies, we are reaching the condition where horticulture must become a commercial and intensive proposition, and with that comes a change in the attitude of mind which the horticulturist must have.

We see throughout the nation at large today this enormous development of horticultural interest, spreading not only in the West, but throughout our own region as well as the East. There are some dangers, however, which confront us in connection with this widespread development. Is it overproduction? I myself do not believe that this will prove a serious danger, because so many people are now going into horticulture, especially in the western parts of the country that go there lured by the glittering allurements of the printed page, but without having any adequate knowledge of how to handle their proposition. A year ago I took a trip through the fruit re-

gions, paying special attention to these conditions. In Colorado, Yakima, Bitter Root and Hood River, I found people pouring into those regions who were paying extravagantly high prices for fruit lands. I inquired further into the character of the population that were thus seeking this Golconda of gold that they were to secure from fruit and I found in a very considerable percentage of cases, in fact the majority of cases, where the question was asked, that it was the rich mensons, for instance, who were sent out there by their fathers, or they were speculators, but they were not horticulturists. Now, you need not fear overproduction from that kind of competition. When those people go out there and put their hard earned dollars, or the dollars of somebody else into a proposition of that sort, without any adequate knowledge of the scientific care that is necessary to grow an orchard crop, you can rest assured that it will only be a short time before that property will be for sale at less than what they paid for it.

Another point is the distance of this fruit from the market and the difficulty and cost of getting it to the big markets. When all of the fruit trees now planted in Washington, Oregon and Idaho come into bearing, they told me in Spokane that it would take 180,000 freight cars to haul that fruit to market. When you consider that it takes thirty days for a refrigerator freight car to leave Spokane and go to the Atlantic seaboard and return and you see that the rush of the season is confined to thirty to sixty days, you can see what inadequate facilities there are for the transportation companies to carry a full crop when it is produced. Frequently those areas are connected with the markets in the East with one single thread of steel. I went through the Royal Gorge of the Arkansas and two days after I went through, there came a cloud burst which ripped up the Denver & Rio Grande road, covering it with three feet of mud. Peach trains were held up on the other side of that gorge for three days, while

their cargoes rotted in the cars, because they could not get to market. That was the only thread of connection between the producer and consumer, those two steel rails which were subject of a cloud burst of that sort. The man that goes out and puts his money into that kind of proposition is taking long chances in comparison with what he would be if he remained in the Upper Mississippi Valley, or even went down East.

This question of the danger of over doing the business in my mind is not likely to be realized for the various reasons that I have mentioned.

(To be continued.)

### || MANY MEN, MANY MINDS

In regard to Mr. McLean's article in the February issue of *HORTICULTURE*, I do not entirely agree with him to eliminate the debate part from the convention program. I think this is the most interesting and instructive reading in the annual report. To make the greatest success in any business, one must meet and get in discussion with others engaged in the same line of work, to compare notes as to our success and failures. This is especially true of horticulture. There is no place to do this better than at the annual convention and no better way than through the medium of the question box. In reading the reports though I do find that the greater part of the debate is engaged in mostly by those who took part in the program. These men are generally leaders in horticulture, and they sometimes do get into a discussion more personal than practicable and interesting to the younger members. I think the limited time given over for debate should be more judiciously used by members with only a general cultural knowledge of fruit growing.

To be at the convention and come in contact with fellow members, and be able to ask the questions uppermost in one's mind as the subjects are under discussion is the most instructive of all. So I will say I hope to be there next year and to find the discussions a prominent part of the program.

R. PFOTENHAUER.

BROTHER W. A. TOOLE ALSO OBJECTS.

I have just been looking over *WISCONSIN HORTICULTURE* which arrived this afternoon and as usual find much to interest me.

My liveliest thoughts are about the remarks of Wm. G. MacLean, who would eliminate all discussion from our meetings. Mr. MacLean must be, from his remarks, of a very peace loving disposition so I am surely safe in disagreeing with him. While it is true, that at times discussions may take an unprofitable turn, yet it is my experience and the experience of a great many attendants of these conventions that much of the most vital information is brought out in discussion. Any experienced person is liable to look at a familiar subject from a biased standpoint and it is only by the disagreements of others also experienced that we are able to come to a fair judgment. In discussion also many valuable points are brought out that were overlooked by the speaker in his talk.

No doubt in this case as well, Mr. MacLean will feel that a peaceable acceptance of his views is most desirable, but I venture to believe many will disagree with him.

Respectfully,

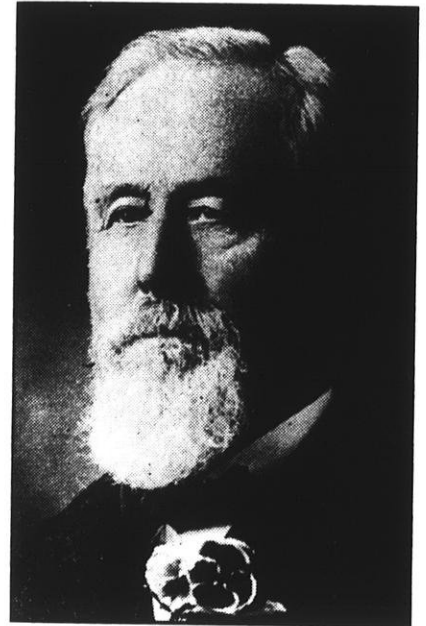
W. A. TOOLE.

### ABOUT DIPLOMAS.

Degrees are conferred by universities on the basis of scholarship. A boy or girl spends four years at Madison and comes home with a diploma marked B. A. or some other combination of capital letters. Diplomas or the degrees these confer are often lightly thought of, the standby of shallow minded jokesmiths and yet the possessor of one may feel justly proud. It means, at the University of Wisconsin, four years of mighty hard work, it means a well disciplined mind, the Hallmark of Scholarship. After all it is the result of but four years of effort and under systematic guidance. What about the father of the boy who has spent a lifetime working the real problems of his business. What about the men who, though lacking the scholastic attainments of the college bred men, have nevertheless made the Agriculture

and Horticulture of today? Men who have accomplished that which many a college professor has aimed at but failed to reach, the happy union of the practical and theoretical. These men have been students also, not for four years but for a life-time. Are they to have no diploma?

The University of Wisconsin answers through the College of Agriculture in the affirmative and each year, as stated in the Announcement, confers "special testimonials of recognition of their eminent services in the



Wm. Toole, Baraboo

development of agricultural thought and practice," upon two or more men selected for this recognition, "because of their important work in the development of Wisconsin Agriculture." These testimonials are conferred at the annual recognition exercises at the close of the Annual Farmers' Course. Twice have members of our society been honored, the recognition being first extended to Mr. A. L. Hatch in 1909.

But two were honored this year, Alexander Galbraith, a prominent horseman of Janesville, and our fellow member and ex-president, William Toole of Baraboo.

We suspect the selection of Mr. Galbraith was well deserved. We can dimly conceive the importation and breeding of horses to be a valuable field and one in which some credit

might be attained, but concerning the selection of Mr. Toole we have no doubts whatever.

Possibly our very hearty approval may be influenced to some extent by friendship, but we are certain that the honor was well bestowed.

Dean Russell in presenting Mr. Toole spoke substantially as follows:

"William Toole of Baraboo is well-known throughout Wisconsin and in many other states as one of the leading horticulturists of the country. While he has been particularly a specialist in the improvement of pansies, he has also advocated better methods of farming in all lines and has also been instrumental in organizing a better type of social life in the community in which he resides. Mr. Toole was born in Lancashire, England, in 1841 and came to Rhode Island a few years later. In 1859 his father moved to Sauk County, Wisconsin. In 1869 he moved to his present homestead, known as Pansy Heights, two miles from Baraboo. He has built up an important business as a dealer and grower in flower seeds and plants with special attention to the cultivation and development of the pansy. He has been a leading prize winner at many shows with this flower and has originated a number of varieties of high quality. His most valuable service to his community has been through his work for better educational facilities and as a prime mover in the Wisconsin State Horticultural Society. He was an early advocate of the strong College of Agriculture. He has held numerous offices of farmers' organizations and for the past two years has been president of the State Horticultural Society. He is secretary of the Sauk County Good Roads Association, treasurer of the Skillet Falls Telephone Company, president of the Sauk County Corn Growers' Association and for five years president of the Skillet Creek Farmers' Club, a social organization of farmers, which has secured country wide notice because of its work in aiding the improvement of rural social conditions. The influence of Mr. Toole has been state wide in favor of permanent and substantial agriculture

and it is for this unselfish service that he is recognized by the university."

Patronize firms that advertise in WISCONSIN HORTICULTURE. We accept only reliable firms.

#### THE SPAULDING NURSERY & ORCHARD CO., SPRINGFIELD, ILL.

This is the company that sells Baxter apple trees at one dollar each in lots of not less than fifty, and "contributes" an equal number of other sorts.

The agent's story about the Baxter is said to be one of the most beautiful word pictures in the English language; it would draw tears from the heart of a stone or orders from any but the experienced. To one who really knows the Baxter apple, to hear it recommended over the Wealthy is enough to make him go out and beat his grandmother. It is hard to believe but true that one C. D. Dimmond or Drummond, agent for the above named company actually sold thousands of Baxter apple trees at a net price of \$1.00 each to farmers in Waukesha County last summer for delivery in the fall of 1910.

Following our usual practice we print a sample contract. It has been suggested by some of our readers that we should emphasize more fully the fact that the contracts printed in HORTICULTURE are not good contracts but we scarcely see the necessity for it.

We have confidence in the intelligence of our readers, and if perchance there should be one who can not comprehend it would be of no use trying to show him.

If one wanted a big lot of trees, without any guaranty of size or quality and was willing to encumber his premises with many worthless varieties he ought to buy just such a bill as given in this contract. First about the Baxter apple. Here is what Prof. S. A. Beach says of it in "Apples of New York."

"A large red apple decidedly attractive in appearance. Some see in it a resemblance to Tompkins King, but there is more evidence of a relationship with the Blue Pearmain

group of apples. This is seen in the form and color of the fruit, the bloom, the areolar dots and the character of the flesh. It does not rank high in quality. \* \* \* At Geneva it has proved vigorous and productive, but because it is inferior in quality to other varieties of its season, such as Tompkins King, McIntosh and Hubbardston, it is doubtful whether Baxter is worthy of a place in the commercial orchards of Western and Southern New York.

Origin.—It was known near Brockville, Canada, one hundred years or more ago. It gradually found its way into nurseries and within the last twenty-five years has been quite extensively propagated."

We have no reason to believe that it is either hardy or in any way desirable for Wisconsin. Anyway there is no sense in loading up with enough to plant an acre when such tried and true varieties as Wealthy, Duchess, etc., are available at one-fourth the price.

Of the "gift" trees only 14 are worth planting in Wisconsin, the Early Harvest, Astrachan, Snow, Duchess, Wealthy and Golden Russett. The pears and plums are an indifferent mixture of good and poor.

One year Catalpa seedlings are worth about seven dollars a thousand, possibly twenty-five dollars for the lot. The culture of Catalpa for timber in this state is a snare and a delusion, a waste of time and money. Only deep, rich bottom land is suited for Catalpa culture and such land in this state is worth too much for corn and hogs, hay or vegetables.

To conclude: This contract calls for 130 fruit trees including one "Dr. Cook" peach and 3000 one year catalpa seedlings for \$140 cash on delivery and no specifications as to size or quality. We venture a guess that any Wisconsin nurseryman will furnish this bill for \$75 cash on delivery.

Having three guesses coming we make one more; that any of said nurserymen will furnish 350 good fruit trees, apple, cherry or plum of good reliable standard varieties for \$140 and be very glad to get the order. We thought of closing with a moral

but what in thunder is the use of as the crop is good so long will the  
moralizing. There is said to be a nets be spread. All we can do is to  
sucker born every minute and as long keep on preaching the gospel.

April 26, 1910

I.....have this day bought of

**THE SPAULDING NURSERY AND ORCHARD CO.  
SPRINGFIELD, ILL.**

the following articles for the purpose of improving my property for which I promise to pay them or bearers \$. ....140.00..... upon delivery at .....in the.....fall.....of 1910. I am solvent and responsible, and hereby agree to come for the goods purchased herein on the day set for delivery, at which time said goods are to be in good order, but after that date will be wholly at my risk; and I agree to pay livery hire and other expenses to have them delivered at my house after delivery day. It is agreed that the entire contract is printed and written hereon, and that no verbal agreement or alteration in the printed matter of this contract is binding, and I agree not to countermand this order. All trees that die the first three years are to be replaced free.

No.	Articles	Dols.	Cts.	No.	Articles	Dols.	Cts.
110.....	Apples, 5 to 6 ft.....						
7.....	Plum, 5 to 6 ft.....						
12.....	Peach, 3 to 4 ft.....						
12.....	Pear, Std., 4 to 5 ft.....						
12.....	Mayberry .....						
3000.....	Indiana Catalpa Speciosa, 12 to 24 in.....						

No.	Total	\$140.00
-----	-------	----------

Signed .....

P. O. .... Residence.....

.....C. D. D.....Salesman

(List on back of contract.)

2	Early Harvest Apple.	4	Early Harvest Pear.
2	Red Astrachan.	4	Longworths.
2	Snow.	4	Rossney.
2	Duchess.		
3	Wealthy.		
2	Sweet Pear.	12	
5	Rambo.		
10	Grimes Golden.	1	Burbank.
10	Jonathan.	2	Gold Coin.
5	Dominion.	2	Chalco.
5	Baldwin.	2	New American.
3	Golden Russett.		
2	Bellflower.		
2	Bailey's Sweet.	7	
55	Baxter.		
110		1	Arctic Peach.

**AN EXPLANATION.**

We were greatly surprised and annoyed recently on receiving letters from members asking us to quote prices on Grasselli spray products. On investigation we learned that the Grasselli company had mailed a circular letter to over 700 of our mem-

bers stating that they had made arrangements with "The Wisconsin State Horticultural Society, Madison, Wis., to handle the Grasselli Spray products the coming season," and advising them to write for prices, etc.

The society does *not* handle spray

products of any make or brand whatever nor recommend merchandise of any kind except to the extent of accepting advertisements from firms that we know are reliable.

The Michigan society and some others do this sort of thing, but so far the Wisconsin society has not entered the field of co-operative buying.

We wrote the Grasselli company a rather caustic letter and received in reply an explanation entirely satisfactory in every particular. We are satisfied that a mistake was made and that the company had no intention of causing us any annoyance.

We have insisted that a letter of explanation be mailed to the members receiving the first one and print herewith a copy of same.

"In our letter of the 25th ult. in the interest of Grasselli Spray Products, we stated that we had made arrangements with the Wisconsin State Horticultural Society, Madison, Wis., to handle Grasselli Spray Products the coming season. This was in error. The Wisconsin State Horticultural Society does not make contracts for spray products for the members of the society.

We carry stocks of these products at our Milwaukee Department and can ship from there.

We regret the error very much and this will serve to withdraw our letter of the 25th ult., which was sent you." Yours very truly,

THE GRASSELLI CHEMICAL CO.

Per W. E. CROLEY.

**ALL KINDS OF TROUBLE.**

I see in WISCONSIN HORTICULTURE for February an article from August Cleermans of Green Bay about planting and buying fruit trees. I agree that we should buy Wisconsin grown trees, but when we can buy better trees elsewhere and for half price, what then? I have had all kinds of experience in buying fruit trees. Quite a few years back I got a small lot of apple trees from a Wisconsin firm and they were the best I ever had. I then sent to Minnesota for a lot of plums. These came too late in the spring and were as dry as straw and only a few of them lived



and those few were only wild plums. I pulled them all up. I then sent to ———, Wisconsin, for a lot of plums, cherries and some apples. The plums and cherries were the worst trash that I ever saw. The apples, mostly Wealthy, were not so bad. I paid a good price for all I got.

I then sent to Missouri and got a lot of plums, cherries and apples. These trees have all done pretty well but some of the apple trees were too small for anything, but the whole lot was reasonably cheap and but very few died. At this time I also got a lot from a Mail Order Nursery Co., of New York. There were large and fine trees and have done splendid and are now beginning to bear.

Fall planting is no good here. Getting trees in the fall and "heeling in" over winter is no good either as you are liable to ruin a lot of the trees getting them out of the ground in the spring and a lot of extra work.

I like to get my trees as early in the spring as I can and then plant them as soon as possible. If one is not quite ready to plant, then stick the roots in the ground and be sure they are kept moist. A good many thousand trees have died because they were dried out when they came and others were dried out afterwards through carelessness.

CHRISTIAN SAABYE.

We still believe in Wisconsin.—Ed.

### LEGISLATION.

The State Legislature has now been in session four weeks. Several hundred bills have been introduced and the end is not yet. Up to date six of these bills are of interest to our members. First in importance are the bills prepared by Prof. Sanders regulating insecticides and nursery inspection. A digest of these bills by Prof. Sanders will appear in April issue.

#### A RABBIT BILL.

This is the editor's pet measure although he had nothing whatever to do with its preparation or introduction. In substance it removes all restrictions on killing rabbits at any time of the year. The meat of the measure lies in the following paragraph:

"Provided, that nothing in this act shall be construed to prevent the hunting and killing rabbits at any time or in any manner without a license."

Those of our readers who believe that rabbits should be classed as they are in England as "vermin" instead of game are urged to write to their assemblyman or senator urging the passage of this bill. The bill was introduced by Mr. Monson, assemblyman from Richland County. Refer to the bill as 114 A.

#### MORE RABBIT LAW, ALSO DEER.

Assembly bill 147 A, introduced by Mr. Knight of Bayfield provides that:

"The game laws of the state of Wisconsin, relating to the hunting of deer and rabbits, shall not be construed to prevent the owner or occupant, and members of their families, of any land in Bayfield county from hunting and killing deer and rabbits thereon at any time or in any manner without license."

#### AND THEN SOME.

Assemblyman Hansen believes that the farmers and fruit growers of Manitowoc county should be permitted to kill rabbits at any time without a license and has a bill to that effect, 407 A. We prefer the Monson bill as it covers the entire state.

#### FOR FULL MEASURE FRUIT PACKAGES.

Bill——A. by Assemblyman Axel Johnson of Polk and Burnett counties fixing size, capacity, of the apple barrel, cranberry barrel, apple box and berry box. The apple barrel must hold three bushels, the apple box one bushel full measure and the berry box one full quart liquid or wine measure. Barrels for apples and cranberries must be branded W. S. A. or W. S. C.

### VEGETABLES FOR QUALITY.

The market gardener is not always influenced by quality when selecting varieties of vegetables. It is a matter of dollars and cents with him and he quickly learns that outside appearance counts more in the market than quality. Shipping or carrying qual-

ities and productiveness must also be considered.

In selecting varieties for the home garden none of these points need be taken into account as quality should be the supreme test.

Unfortunately few of the catalogs feature quality vegetables and the home gardener must keep on testing pages of varieties to find the best. The Lake Geneva gardeners all grow for quality only and one of them, Mr. J. J. Krupa, presented a list at the Oconomowoc meeting, a part of which is here given as an aid to our readers in making up spring lists.

Beans: bush, Buddington's Bountiful, Burpee's Stringless.

Lima, bush, Burpee's Improved.

Beets: Buddington's Early, Model Red Globe.

Cabbage: Early; Early Winnigstadt, Earliest of Early; Second Early, Improved Early Summer.

Late; Danish Ball Head.

Red; Early-red-Dutch-Erfurt.

Savoy, Early-dwarf-Ulm.

Cauliflower: Early-Dwarf-Erfurt, Dryweather.

Carrot: Early Parisian, Chatenay-half-long.

Celery: Improved White Plume, Giant Pascal.

Chard: Silver-Lyon-Swiss.

Corn: For extra Early; Burpee's First of all.

For Second Early; Stowell's Evergreen.

For late; Country Gentleman, Black Mexican.

Cucumbers: Rawson's White Spine, Davis Perfection.

Egg Plants: New York Spineless.

Kohl Rabi: White Vienna.

Lettuce: For hot-beds and frames; Grand Rapids.

For out-doors Early; May King, Big Boston.

For Summer; Salamander, Cal. Cream butter.

Melon, Musk: Emerald Gem, Early Hackensack.

Melon, Water: Cole's Early, Dixie.

Onions: Ailsa Craig, Yellow Globe.

For pickling, White Bartletts.

Parsnip: Improved Hollow Crown.

Peas: For early; Boddington's Early Bird, Nott's Excelsior.

For intermediate; Senator, Telephone.

For late; Mammoth Marrowfat, Alderman.

Radish: Non plus Ultra, Icicle, Cooper's Sparkler.

Spinach: Round Viroflay, Victoria.

For Summer, New Zealand.

Tomato: Livingston's Coreless, Sutton's Best of all, Ponderosa.

### HOT BEDS, THE HOME MADE KIND.

A hot-bed is a device for lengthening the growing season. By use of a hot-bed we may have lettuce, radishes and other garden "sass" a month or six weeks earlier than by open ground culture, and vegetable plants like cabbage, tomato, etc., may be had in ample season for the very earliest planting. March is the month for making hot-beds in this state, early or late in the month according to latitude. Books on gardening and professional gardeners give elaborate directions for making a hot-bed. We are to have a pit, "deep and wide." We are to provide an expensive plank frame, tongued, grooved, dove-tailed, sand-papered and varnished with sash similarly treated, we are to carefully prepare the manure, use loam prepared according to a specific formula, use thermometers, etc., etc., all of which is nice and proper for the professional but rather discouraging for the beginner. To those of our readers who have never had a hot-bed and want one we suggest as a starter the following rough-and-ready plan.

On the south side of the barn or other sheltered spot pile fresh horse manure 2½ to 3 feet deep and over a space considerably larger than the proposed hot-bed. From any old boards that happen to be handy knock together a rectangular frame four to six feet wide and as long as desired, say about 12 feet, one side 8 to 10 inches high and the other 12 to 14 inches. Set this on the manure pile, the high side to the north. Get from any available source almost any kind of soil sufficient to cover the manure within the frame 4 inches deep. Cover with glazed sash and pack fresh manure around the frame and level to the top. There will be a real hot time inside the frame for about two days

especially if the sun shines. After the worst is over begin gardening.

The management of a hot-bed involves close attention, and common sense. On sunshiny days the sash must be raised in order to lower the temperature within the frame but may need to be closed quickly with a change of weather.

The glass should be covered at night to prevent radiation of heat. Old carpet, sacks or, lacking these, a covering of straw or coarse manure will answer.

The glass cover is the most expensive part and usually most difficult to obtain. If storm windows are used on the house take off a few and use for the hot-bed. It won't hurt them and it may also be the means of letting a little fresh air into the house. These directions are brief and provide only for a crude imitation of the professional gardener's structure but very good results may often be obtained with this simple equipment.

We offer the suggestion merely as "first aid to the injured." For a more expensive outfit see books on gardening.

### BEST KINDS OF SMALL FRUITS TO PLANT.

We asked several of our best informed members to send (on a postal card) lists of the very best varieties for the home garden. These variety lists have been discussed hundreds of times at our conventions and lengthy lists printed each year in the Annual Report, but we believe firmly in repeating often the simpler facts,—“first aid to the injured.”

The lists sent in have been condensed and the following are said to be good enough for anybody:

Strawberries: Warfield, Bederwood, Dunlap.

Black Rasp: Cumberland, Plum Farmer.

Red Rasp: Cuthbert.

Blackberries: Eldorado, Stone's Hardy.

Currant: Cherry, Pomona, White Grape.

Grapes: Concord, Worden, Delaware.

### A FOOLISH BILL

Just as we were about to close this story about law-making our attention was called to Bill 634A. Presumably introduced by a bee keeper or somebody closely related to one. Here is the substance of the bill:

"It shall be unlawful, and is hereby prohibited, for any person to spray any fruit tree after the opening of the blossoms thereon, with any substance poisonous to honey bees."

We are simply down and out, flabbergasted, speechless. We also lack space to give proper expression to our ideas on the subject. We are faint, weary and overcome. By next month we hope to have both strength and space, a page or two at least, to give our readers an idea of the absurdity of such a measure. Many of our readers will not need any such explanation but we will give it just the same.

In the meantime fruit growers are invited to call the attention of the members of the legislature to the fact that every honey bee should be dehorned and operated for appendicitis before being allowed to run at large.

### DUCHESS APPLES IN FEBRUARY

On February 15 we received from Sec. Flanders of the Bayfield local two fine Duchess apples grown at Bayfield and kept in common cellar storage. The specimens are firm and edible. Mr. Flanders writes that the apples were picked August 26. If Bayfield Duchess will keep six months how long will Bayfield Wealthy keep?

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Annual Membership.....\$0.50

Life Membership.....5.00

Remit to Secretary W. S. H. S.  
Madison, Wis.

No pay, no paper.

WE believe in the farmer's orchard,  
just enough to supply the farmer's  
table and cellar and no more.

STICK to early maturing apples  
such as Duchess, McMahan and  
Wealthy and fifty thousand acres  
will not supply the demand.

PRESIDENT Bingham estimates that  
Door county will have over two thousand  
acres of tree fruits at the close  
of 1911 planting.

A MAN is not a good citizen if he  
fails to provide for his family.

A MAN who has land and fails to  
provide an abundance of vegetables  
and fruit for his family is a heathen.

PRUNE fruit trees in March and  
April. For principles of pruning see  
February number.

WE are very grateful to members  
who have secured recruits. May  
their shadows never grow less!

Six currant bushes, four Perfection  
or Red Cross and two White Grape  
will be enough for the average  
family.

NEARLY one hundred subscribers  
are in arrears. Hoping to receive  
your renewal at an early date we  
remain, Very Truly Yours.

THE order for nursery stock should  
include at least fifty strawberry  
plants. Dunlap and Warfield is a  
good combination.

WE believe in Wisconsin, we believe  
because we know, because we  
have watched and studied Wisconsin  
crops and prices. Even if we did not  
have such honest convictions we  
would at least try to fondle the hand  
that feeds us.

MORE fruit trees, mostly apple and  
cherry, will be planted this season  
than ever before in the history of  
the state. From reports received at  
this office it is plain that more than  
one thousand acres each of apples  
and cherries will be planted in Wisconsin  
in the spring of 1911. That's  
going some!

By all means buy liberally of annuals  
for the flower garden. Sweet  
Alyssum, Candytuft, Snapdragon,  
Balsam, Coxcomb, Larkspur, Annual  
Phlox, Amaranthus, Marigold, Dwarf  
Nasturtium, Poppies, the big red  
kind, Zinnias and Mignonette.

Make out your order for at least  
one packet of each and we will tell  
you next month how to have a real  
flower garden.

WANTED:—One thousand young  
men who have faith in Wisconsin as  
a fruit state. Only men with brains,  
energy, ambition and sticking qualities  
wanted. Only small capital required.  
No side lines to carry. Such men  
can purchase twenty acres of land  
in Wisconsin for the price asked  
for one acre of western irrigated  
land.

ONE year ago we predicted that  
the western apple boom would collapse  
within five years. We now set it  
at two years. Western apples have  
gone begging at \$2.50 per box retail  
in Wisconsin markets this winter,  
which means less than fifty cents per  
box (bushel) to the grower or else  
the middlemen have sunk some  
money.

Buy a few shrubs for planting  
around the house. Don't scatter  
them over the lawn to become living  
exclamation points but plant low-  
growing kinds like Snowberry, Dwarf  
Barberry and the smaller Spiraea  
close to the house and in porch  
angles. The larger kinds like Bridal  
Wreath Spirea, Syringa, Japanese  
Lilac and Bush Honeysuckle should  
be planted in groups of five or six,  
on small lawns, or on the border.

If the seed men have overlooked  
you do not fail to send for catalogs.  
Of seeds buy the standard kinds, the  
ones listed in common type, for the  
flower or vegetable garden and then  
invest in some of the novelties. It's  
heaps of fun testing novelties, really  
exciting, and we wouldn't miss it for  
anything. For instance, watching  
the faces of our friends while sampling  
the wonderful Wonderberry was  
worth many times the price of the  
seeds.

### A RIDDLE AND THE ANSWER.

Why is our convention reporter,  
Miss Jacobson, like good weather?

Answer.—Because, like sunshine  
she brings cheer and good will wherever  
she goes, and, like good weather,  
she goes everywhere; not alone to  
Madison to report faithfully all our  
wisdom and set it down in type, but  
may be found at Princeton, Ill.

Champaign, and almost any place in the Northwest where fruit cranks foregather.

The Illinois Horticultural Society met at Champaign recently and we have from Miss Jacobson the following welcome report.

The meeting was held in the Agricultural Building on the campus of the University of Illinois, thus securing the presence at various sessions of such men as Dr. T. J. Burrill, vice president of the university, Professors J. C. Blair, J. W. Lloyd and C. S. Crandall. About 150 persons registered as being in attendance at the meeting, among them several ladies. It was also good to see in the audience the fresh young faces of students who dropped in between classes. The havoc wrought throughout the state by the freeze of April, 1910, was a fruitful topic of discussion, and it was admitted by Prof. Blair, Senator Dunlap and others who discussed the feasibility of heating Illinois orchards by means of smudge pots, that no amount of heating would have availed against such severe weather conditions. There was a favored strip, extending for a width of about twenty miles, and several counties long, in the southern part of the state, that escaped the effects of the frost, one forty acre orchard yielding \$18,000 worth of fruit. Some of these fortunate growers received as high as \$6 per barrel for their fruit. Spraying, as usual, was the all-absorbing topic of interest, this, as well as other orchard operations, being considered entirely from a commercial grower's standpoint. Prof. O. S. Watkins gave the results of experiments carried on at eight different experiment stations with thirteen different kinds of spraying material, among them such euphonious articles as Pyrox, Cacusa and Sulfocide. Owing to the lack of apples, no very definite conclusions could be reached, excepting that self-boiled lime-sulphur was found to be of no avail as a fungicide. Prof. F. A. Waugh, of Amherst, Mass., illustrated various methods of pruning, and also gave a charming talk on his recent sojourn in Europe, showing many pictures of his own taking. Mrs. H. M. Dunlap gave an

interesting and practical talk on "The Possibilities of the Farm Home." The officers elected were: President, F. D. Voris; secretary, W. B. Lloyd; treasurer, J. W. Stanton.

#### WHY?

It does not take much time to care for two hundred strawberry plants, a dozen blackberries, as many raspberries and grapes, and a few currant and gooseberries. Why don't every farmer have them in the garden? The fruit will add greatly to the health and comfort of the family both while fresh from the vines and the variety of toothsome sauces that can be put away for winter. The busy housewife will appreciate having something to help out in a case of emergency.

MRS. L. H. PALMER.



THE MISSING ONE

Last month we published a picture of three officers of the society, with the statement that the missing one, the secretary, fell off the steps just before the camera clicked.

Inquiries from solicitous friends have been so numerous and so pointed that we take this opportunity of replying to all,—the secretary quickly recovered his balance and in some measure his wits as the accompanying cut shows.

## The Great Northern Nursery Co.

### Sells First-Class

### Wisconsin Grown Trees

**Our Trees Live.** We had an opportunity to compare 500 of our Wisconsin grown trees with a similar lot of an Eastern Nursery. At the end of the season only 52 per cent of the eastern grown stock was alive, while 95 per cent of ours lived and grew. Moral: buy home grown stock and avoid loss. Our trees are **HARDY**, and our stock is **HEALTHY**. A comparison will prove that our stock has not the willowy and watery soft growth of southern or eastern grown stock.

Every tree and shrub is packed entirely under cover, free from exposure to sun and wind.

## Great Northern Nursery Company, Baraboo, Wis.

Write for Catalogue and Price - List.

## TOMATO SEED

A limited amount of the famous

"EARLY BUCKSTAFF"

Per package 25 cents

Per ounce 75 cents

**RASMUSSEN'S FRUIT FARM**  
OSHKOSH, WISCONSIN

## FIFTY - SEVENTH YEAR

## Do You Know What to Plant?

After 56 years in the business we **KNOW** what varieties are best adapted for Wisconsin. Get our free pamphlet and price list and write us for help in selecting your list of Fruit Trees and Plants.

## KELLOGG'S NURSERY

BOX 77, JANESVILLE, WIS.



### Questions and Answers

We are slowly digging our way to daylight. Over 500 questions remained on hand as a result of the pre-convention sheets. We propose to answer every question either through HORTICULTURE or by letter. We give this month the first installment. The answers are in part from members to whom the questions were mailed for answers. We give first a bunch of cherry questions with answers by President Bingham.

What variety of cherry will do well on sandy soils?

Any variety of cherry will do well on sandy soil provided sub-soil is not all sand.

What variety of cherry will do well in central and northern Wisconsin?

Early Richmond and Montmorency and Morello cherry will do as well as any, and may succeed in central and northern Wisconsin if some care and judgment is used in selection of site but may not be a success commercially. Better select a location adapted to cherry, like Door county or Bayfield.

Would it be advisable to sow oats between trees on one year old cherry orchard, then when oats are taken off in July plow and sow buckwheat and plow under late in fall for fertilizer. If so how much space should be left between trees and oats?

It is doubtful if oats can be used between young trees and get as good results as with clean culture or a cultivated crop. Should have 5 to 6 ft. space each side of trees. If buckwheat is used better let it stand till spring for cover crop, then plow under when dry less danger of sowing the soil and you lose nothing by letting it stand till dry. You gain in wood fiber and consequently have more lasting effect as a humous producer.

Is the soil, where pine has grown more desirable than hardwood soil for cherry trees, elevation and climatic conditions being equal?

There is a possibility that pine land is stronger in potash than hardwood lands and in that case would produce fruit buds on trees quicker than where planted on hardwood lands and would not produce so much wood growth. This is true to considerable extent in Door county where no attention is paid to a balanced condition of soil. This condition, however, is controllable to a great extent by proper handling of soils.

I am going to plant 1000 cherry trees on ten acre tract in Door county the coming spring. Would it pay to plant Navy Beans between trees?

Yes, it will *pay* to plant beans provided the beans *pay* and they will pay if you pay enough attention to cultivation of the bean.

About how many bushels of beans would it take to plant this ten acres with trees on?

You can plant this ten acres with about seven bushels of beans. Plant about three-fourths to one bushel per acre. The finer the seed the less bushels. Will take less bushels of navy beans than medium. Drill beans, using three or four beans scattered along in every five inches of space but not in hills.

What is the cost of caring for a young cherry orchard the first year from the time after the trees are planted? Also second, third, fourth, and fifth years.

First year, about \$8 per acre; second year, about \$10; third year, about \$12; fourth year, about \$12; fifth year, about \$13.

These figures are about what you could contract for but if done yourself you could figure on a little saving, perhaps depending on season, and this would only show up as season advances.

When planting a commercial orchard of forty acres in Wisconsin, how many and what varieties of cherries, plums and pears would you plant besides the apples?

Depends on location of orchard how many cherries and plums planted.

### FIRST CLASS NURSERY STOCK IN GREAT VARIETY

Consisting of

### FRUIT, SHADE AND ORNAMENTAL TREES

Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grape Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

**The Coe, Converse & Edwards Co.**  
FORT ATKINSON, WISCONSIN  
Wisconsin's Largest Nursery

## JEWELL MINNESOTA GROWN Nursery Stock

Complete assortment of Fruit and Ornamental stock in all varieties suited to northern culture. A specialty of Hardy Shade Trees, Windbreak Stock, Evergreens (Coniferous), Deciduous Shrubs, Apples and Native Plums.

**THE JEWELL NURSERY CO.**  
LAKE CITY, MINN.

1500 Acres

Established 1868

2. How many and what varieties of apples would you plant?

In southern Wisconsin forty acres apples, no plums or cherries; in Door county ten acres cherries, one-half to one acre plums, balance apples; three varieties, Duchess, Wealthy, N. W. Greening; only a few pears for home use, Seckel, Clapp's Favorite.

I want to set out about 25 apple trees for home use, summer, fall and winter apples; which would you advise me to plant that are hardy here in Milwaukee county?

Duchess, Wealthy, Talman, Snow, McIntosh, N. W. Greening.

What plums do best here in Milwaukee county.

Native plums.

Which is the best pear to plant here.

Seckel is good.

How many kinds of Russett apples are there and names of same?

Golden Russett, Perry Russett, Roxbury Russett, Wisconsin Russett.

We have a number of wild cherry trees. Would it be advisable to graft tame cherry tree to wild cherry, and if advisable how would you do it?

Not advisable under any circumstances.

#### SOME STRAWBERRY QUESTIONS AND ANSWERS

BY E. A. RICHARDSON, EXCEPT AS NOTED.

Is there any dark berry as good a fertilizer as the Beder wood?

No.

Is the Aroma a good market berry?

Yes.

If a good blanket of snow lies on berries is it all right to cover with straw just before thawing?

Yes.

Are forest leaves a good covering for strawberries or do they pack too much. Are berries covered before freezing better than those covered later?

1. A light covering of forest leaves is excellent for strawberries.

2. Yes.

Which is the most profitable, the matted, half matted or hedge row?

What kinds of strawberries are best on heavy clay loam in central Wisconsin?

1. The matted row has been the most profitable for me.

2. As I do not live in central Wisconsin can not say.

Which is the best money maker, the early or late strawberry?

The early varieties are ahead of the late. But give me the medium varieties.

Which will pay best the growing of cucumbers or strawberries for market as the market usually runs 10 to 50 cents per bushel for cucumber and \$2 to \$3 per bushel for strawberries?

Strawberries for the small fruit grower; cucumbers for the market gardener.

Can strawberries be grown profitably in hills three feet apart by fifteen to eighteen inches in the rows and all runners cut off? Is this a good manner of growing them?

1. Yes.

2. No, not in Wisconsin.

Do you advise heading back Columbia raspberries (when)?

Do you advise heading back black cap raspberries (when)?

1. Yes; when thirty inches high.

2. Yes, by all means.

Does it injure young strawberry plants to spray them with water while the sun is shining?

No, but do not spray while in blossom.

Will it pay the commercial strawberry grower to irrigate his plants so as to give them plenty of water, before, during and after fruiting season?

That depends on cost of irrigation plant.

Which is the better way, to burn over strawberry bed after fruiting or work it without, for a second crop?

Burn over if possible.

What is the best spray for strawberry plants that have their leaves folded in two and each leaf contains a small worm?

This describes our old enemy the leaf-roller. It is very doubtful if spraying will be of any benefit at

## GRAPE VINES

Largest Stock, Best Varieties, Best Grade. Guaranteed True. We invite correspondence from parties intending to plant.

Catalogue and Price List Free.

T. S. HUBBARD COMPANY, GRAPE VINE SPECIALISTS  
Established 45 Years. FREDONIA, N. Y.

## Hardy Nursery Stock Adapted for the NORTHWEST

We offer a complete line of Fruit, Shade and Ornamental stock. Varieties that will suit your needs.

*Berry Plants, Rhubarb, Grape Vines, Asparagus in the Leading Sorts.*

Garden and Commercial Orchard Planters will do well to write to us. Prices consistent with Quality.

"Send for our new 1911 catalog entitled, HARDY NURSERY STOCK."

**McKay Nursery Co.,**  
Pardeeville, Wis.  
Nurseries at Waterloo, Wis.

## NOT THE BIGGEST

## NURSERY PERHAPS

## BUT WE ARE DOING THE BIGGEST BUSINESS

We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

Attractive prices will be made to Market Gardeners and other large buyers of Nursery Stock.

### Our Catalog is an A B C Book

in its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY**  
Wauwatosa, Wisconsin

any time. After fruiting mow the beds close to the ground and burn all foliage.—Answer by C.

I planted several hundred strawberry plants last spring, but owing to the severe drought the plants grew very few runners. Now will those plants, with proper cultivation after the fruiting season, produce strong plants for fruiting the following season?

Yes.—Answer by C.

GRAPE QUESTIONS ANSWERED BY  
G. W. REIGLE.

What age grape vines would you advise buying and how long before expected to bear?

One year, select. Should bear light crop two years after planting, full crop third year.

Are grapes a success, commercially in Wisconsin?

For local market. Early maturing varieties like Moore's Early may be profitable if well grown. This applies to south three tiers of counties.

Is it necessary to lay grapes down for winter protection? If so, how is it going to be done when they become old and large?

While it may not be absolutely necessary it is always advisable and will almost always be profitable. The vines should be pruned before laying down. Grape vines bend readily and even very old vines may be laid down and covered.

Is sandy land only three or four feet down to water good for grapes?

Rather too close to water for any kind of fruit. Good corn land is good grape land. A light, sandy soil with southern exposure will produce early grapes but for fruit of high quality select clay loam.

What is the best method of propagating grape vines?

From cuttings. Take cuttings of current season's growth in fall and bury in well drained spot below frost line butt end up or store in damp, cool cellar. Cuttings should have two buds. Don't propagate except for home garden. Cheaper to buy plants.

Is it practicable to try and raise grapes here (Oneida county), if so what varieties?

Pretty far north for grapes. Try the Beta, grown in Minnesota and recommended for northern latitudes.

If grape vines have been allowed to grow five or six feet long how severely next spring may they be cut back?

If you mean grape wood which grew in 1910 cut back leaving not more than five buds. Fifteen to twenty buds for an ordinary vine is quite enough for first rate clusters. The fifteen or twenty buds on 1910 wood should be distributed on four or five canes.

Much has been written about methods of training grape vines but all that I have read was about starting new vines. Now I have a lot of vines that are five years old and have never been trimmed scientifically, consequently they are in bad shape. I would like to know the best way to fix them up. Every time I look at one of my instruction sheets for pruning grapes I realize that these methods can not be used for old or neglected vines.

I suspect that the reason why "inquirer" finds little or nothing on rejuvenation of old neglected grape vines is that there is little or no economy in the process. A new vine begins to bear the third year after

## Forest Hill Nursery

George Rentschler, Proprietor

Trees and shrubs for street and lawn. Bulbs and hardy garden plants. A full line of fruit trees, bush fruits and strawberry plants

Madison - Wisconsin

## Get The Best



A Good Spray Pump earns big profits and lasts for years. THE ECLIPSE is a good pump. As practical fruit growers we were using common sprayers in our own orchards—found their defects and invented the Eclipse. Its

success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

**MORRILL & MORLEY**  
Benton Harbor, Michigan

## Vincennes Nurseries

Vincennes, Indiana

**W. C. REED,**  
PROPRIETOR

Cherry Trees by the  
100 or 100000

The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited

## WANTED

Man to develop a fruit farm near Fish Creek, Door County, Wis. Twenty acres to be planted with trees this spring. Must be able to do general farming and not above clearing timber land and other work necessary in developing a farm out of 120 acres of new land. Fair salary, to be increased with his success.

**F. L. BLACKINTON, 1500-164 Dearborn St., Chicago**

planting and under good care will bear a good crop the fourth year. Should there be a strong cane or two (suckers) of 1910 growth then saw off the old trunk close to the surface of the ground and treat the canes like new vines. If there are no such canes, you'd better secure an expert to visit your vineyard and advise whether to dig out the old vines and plant new vines, or try to rejuvenate the old neglected vines.

#### SOME GARDEN QUESTIONS ANSWERED BY GARDENERS N. A. RASMUSSEN AND OTHERS.

Does it pay to plant and grow artichokes in Wisconsin and if so for what varieties are the most profitable?

I know of no market calling for artichokes of any amount in Wisconsin and would therefore not consider it profitable to grow them.

Best three varieties of sweet corn, early, medium, late? Best table beet?

Corn.—White Cob, Corry, Perry's Hybrid, Stowell's Evergreen. Beets.—Crosby's Egyptian Blood Turnip.

Best three varieties of peas, early, medium, late?

Alaska Gradus, Stratagem.

What is the earliest and sweetest corn to plant for home use?

Earliest White Cob Cory, Sweetest Country Gentleman Late.

What is the best kind of green peas, dwarf which do not require stakes or supports?

Improved Stratagem. Late variety best but need no support. Medium tall. Nott's Excelsior early.

What method is used in growing large long roots of horseradish for market?

Plant in the spring in medium light, very deeply prepared soil; plant root cuttings about thickness of a lead pencil, six to eight inches long. Set slightly slanting with top end one inch below surface, one foot apart in the row and the rows three to four feet apart. If extra large choice roots are wanted, these must be taken up as early as possible the following spring, all side shoots and small fibers removed and planted and cultivated another year. Thorough cultivation is essential.

## WINTER APPLES OF QUALITY

**Y**OUR attention is called to three great Wisconsin winter apples. Gem City, Tuttle's Winter and Hanco. Quality excellent, will keep in ordinary cellar until spring. Trees are hardy. What more do you want? Write us now and secure some of these trees for delivery fall 1911 or spring 1912. If you delay you may be too late.

We still have a fine line of all stocks that are hardy for this climate. Send us a list of your wants. New Catalogue in January.

### SPECIAL PRICES ON THE FOLLOWING STOCK IN QUANTITIES

300 American White Elm..... 5 to 6 feet	150 American White Elm..... 8 to 10 feet
200 American White Elm..... 7 to 8 feet	100 European Mt. Ash, 100 Butternut,
100 Black Walnut, 1800 White Snowberry, 700 Spirea Vanhoutte,	

SEND FOR ADDITIONAL SURPLUS LIST

## HENRY LAKE SONS COMPANY,

BLACK RIVER FALLS, WISCONSIN

## Door County Lands

ARE THE BEST IN THE STATE OF WISCONSIN

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

**DOOR COUNTY LAND CO.,  
STURGEON BAY, WIS.**

## OLDS' 1911 SEED CATALOGUE IS NOW READY

*It tells the truth and shows things as they are.*

We have a *New Barley* this year, the "*Sweepstakes of the World*," developed at the Wisconsin Experiment Station from the famous Oderbrucker.

*Krueger's Blue Ribbon Wheat* secured the *Highest Award* as a *Milling Wheat* at Omaha last year in competition with the whole Northwest. Originated in Wisconsin and adapted to our conditions.

*Olds' Golden Russet* and *Pat Murphy* are two new potatoes that were introduced this year. See what the catalogue says about them.

*Fancy Montana Alfalfa* and *High Grade Clover, Alsike and Timothy* are specialties of ours. Ask for prices and samples.

We want your orders. Write at once for a catalogue. Call at our store when in Madison and see what we have. We have *Garden Seeds* of all kinds. Also *Tools* and *Poultry Supplies*.

**Drawer 65 L. L. OLDS SEED COMPANY, Madison, Wis.**

Send For  
Our **PANSY GUIDE AND CATALOG**  
of Flower Seeds and Plants  
**FREE TO ANY ADDRESS**  
**WILLIAM TOOLE & SONS**  
**PANSY HEIGHTS, BARABOO, WIS.**

**FORTY - TWO YEARS**  
**The Jewell Nursery Co.**  
Hardy Fruit and Ornamental  
Trees, Shrubs and Plants  
Lake City, - Minnesota  
**FIFTEEN HUNDRED ACRES**



## THE APOSTLE ISLANDS.

Replying to your question, "Is the climate of the Apostle Islands suitable for egg plants and peppers?" Do not think that egg plants and peppers will do well on the Apostle Islands. The climate is too cool. "Will muskmelons mature on the Apostle Islands, if so, what variety?" Muskmelons will grow nicely on the Apostle Islands if the early varieties are planted, especially a variety which we have grown a number of seasons at Bayfield and which in a great measure has become acclimated.

HARVEY NOURSE.

Is there any profit worth while in trying to grow pieplant (rhubarb) in Wisconsin for winter market?

Whether or not there will be any profit in growing rhubarb for winter market in Wisconsin will depend primarily upon the average market. In small towns, a very limited amount of rhubarb will overstock the market. Even in towns the size of Madison the market is usually over-supplied when the wholesale price is in the neighborhood of fifteen cents. With the price at ten or twelve cents the market will take a very much larger quantity. It is evident then that growers within reach of large towns who can grow rhubarb extensively can afford to grow it for the winter market as even ten cents a pound is a remunerative price as there is practically no expense save that of growing the plants in the field. This of course considers that the grower is to force it in out of the way places in the greenhouse, or in a basement heated by a furnace.

PROF. J. G. MOORE.

## RIGHT NOW IS THE TIME

To place your order for Trees and Plants. **DON'T DELAY.** Time for planting is rapidly advancing.

Send us your list of wants and place your next order with

**The Most Northern Nursery in the State.**

Fruit, Shade and Ornamental Trees, Plants, Vines, Roses, Evergreens. Established 1899.

Address

**THE CASCADE NURSERY**  
OSCEOLA, WIS.



# GOULDS RELIABLE SPRAYERS

Only thorough work with the best machinery will accomplish the best paying results from spraying.

You *must* spray if you would have perfect fruit, and it doesn't pay to bother with a cheap outfit. It means no end of trouble and it's too risky—you have too much at stake.

Goulds Sprayers have proved their superiority by years of service. We make the sprayer best suited to your conditions. It will last for years because all working parts are made of bronze to resist the action of chemicals. "You can depend on a Goulds" to work when ever and as long as you require.

**Send for Our Booklet:**  
"How to Spray—When to Spray—What Sprayers to Use"

It discusses the matter thoroughly. It gives valuable spraying formulas and tells how and when to use them.

**THE GOULDS MFG. CO., 600 W. Fall St., Seneca Falls, N.Y.**  
We Make both Hand and Power Pumps for Every Service

## LA FOLLETTE A GREAT STRAWBERRY

The best plant-maker, most healthy, vigorous, productive, and the best seller of forty varieties grown by us the past eight years. The La Follette is a seedling of President McKinley and originated in our nurseries, being selected from several thousand seedlings grown by W. J. Moyle as the best in the lot. We have tried it out under all conditions, and it has proved a winner every time, out yielding all others, being large, firm, good color and bringing the top price on the market.

Price 50c per 12, \$2.00 per 100, \$15.00 per 1000

50 and 100 Rates by Mail Postage Paid

### Special Offer to Readers of the Wisconsin Horticulture

To every one placing an order for 100 La Follette strawberry plants before April the first we will give free any one of the following premiums: 12 Stevens Late Champion strawberry plants, 5 Hardy grape vines assorted colors, or 5 Dudley apple trees one year grafts.

### Wisconsin Nurseries, Union Grove, Wisconsin

W. J. MOYLE, Proprietor

Can rhubarb roots be successfully transplanted in spring and how should the soil be prepared?

Rhubarb may be successfully transplanted in the spring either as small plants produced from seed by sowing during the previous season, or by the division of old plants. The preparation of the ground for the planting of rhubarb should be the same as that given for the planting of any other garden crop with the additional precaution of adding large amount of fertilizer previously in the form of well rotted barnyard manure.

PROF. J. G. MOORE.



## COFFEE

ONE CENT PER POUND

### Salzer's Famous French Coffee

A wholesome drink! The healthiest ever: you can grow it in your own garden on a small patch 10 feet by 10, producing 50 lbs. or more. Ripens in Wisconsin in 90 days. Used in great quantities in France, Germany and all over Europe.

Send 15 cents in stamps and we will mail you a package giving full culture directions, as also our Mammoth seed catalog free; or send 51 cents and get, in addition to above, 10,000 kernels unsurpassable vegetable and flower seeds—enough for bushels of luscious, different vegetables and brilliant flowers.

**JOHN A. SALZER SEED COMPANY**  
761 South 8th St. La Crosse, Wis.

## OTHERS FOLLOW.

We have before us the first number of Nebraska Horticulture, a 16 page monthly journal published by the Nebraska State Horticultural Society and sent free to members. The secretary of the society is editor. We extend fraternal greetings and good wishes. The field is new and untried and we are pleased to have our western neighbors for co-workers. Here's to good luck, Brother Marshall, we wish you success.

Inquiries about nut-bearing trees adapted to Wisconsin have been so numerous lately that we are led to suspect that "our friends the enemy" have abandoned cherry trees at \$97.50 per hundred and have entered a new field.

### 60 VARIETIES STRAWBERRY PLANTS

—SEND FOR CATALOGUE—

**D. J. HENRY, LaPORTE,  
INDIANA**

Grown on ground which produces quality rather than quantity

### Three rousing big crops of SALZER'S Alfalfa

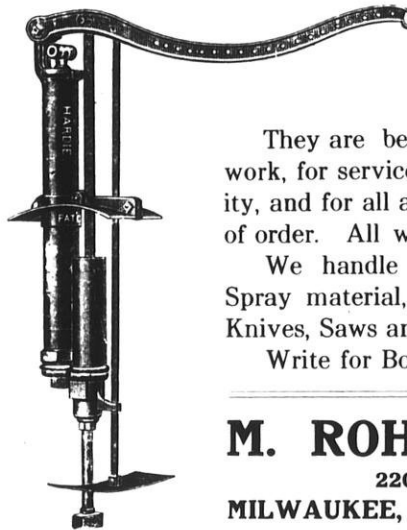
We have sold enough of this seed to sow half-a-million acres and every purchaser has been enthusiastic about it. Ex-Gov. W. D. Hoard of Wisconsin writes "I like the quality of your Alfalfa Clover very much. On 30 acres I raised over \$2500 worth of Alfalfa Hay. There is no better money crop that I know of."



You sow Salzer's Northern Grown Alfalfa and get three rousing big crops, in May, July and August, besides having the best of pastures. It will do this on any farm in America where Timothy will grow. Get full particulars. Write for our 1911 catalog. It's free.

### 10 PACKETS OF FARM SEEDS 10¢

Here's our great trial collection at one cent a package, composed of *Speltz*, the cereal and hay wonder, *Silver King Barley*, a world beater with 173 bu. per acre, *Bonanza Oat*—sown four farms in 1910—biggest sown to yield 259 Bushels per acre! *Billion Dollar Grass*, the ten ton grass wonder, *Salzer's luxuriant Alfalfa*, and five other packets, all ten for 10c in stamps. Write for this collection today and we'll also send you a free copy of our great 1911 catalogue.

**JOHN A. SALZER SEED CO.**
**268 South 8th St., La Crosse, Wis.**


## The Hardie Sprayers

Are the renowned Sprayers with  
**THE TROUBLE** left out. : :

They are best on the market for all around work, for serviceability, for efficiency, for reliability, and for all around work. Nothing to get out of order. All working parts made of brass.

We handle a full line of Sherwin-Williams Spray material, Insecticides, Fungicides, Pruning Knives, Saws and other Orchard Supplies.

Write for Booklets.

## M. ROHLINGER & SON

220 WISCONSIN STREET

MILWAUKEE,

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WISCONSIN

## Arsenate of Lead, Lime—Sulphur Solution

Fully Comply with most rigid requirements of Insecticide Act of 1910



Grasselli Arsenate of Lead is being successfully used to destroy all leaf-eating insects, such as Codling Moth, Potato Beetle, Curculio, etc.

The Grand Sweepstake prize of \$1000 for the best carload of apples shown at the National Apple Show, Spokane, Washington, has been won by users of Grasselli Arsenate of Lead for the last three years.

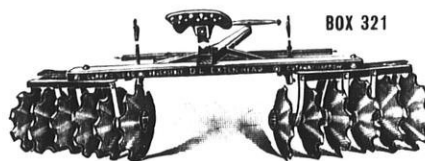
Grasselli Lime Sulphur Solution is the Standard remedy for San Jose Scale. It has also come into prominence as a summer spray to replace Bordeaux Mixture.

For Further Information Write

**The Grasselli Chemical Company,**  
**The Grasselli Chemical Co., Est. 1839**

**Milwaukee, Wis.**  
**Main Office Cleveland**

## CLARK'S CUTAWAY HARROWS ARE WONDERS


**E. G. MENDENHALL,**
**GENERAL DISTRIBUTING  
Agent for the West**

Two-Horse Single Action Cutaway Orchard or Farm Harrow with Extension Head, Reversible; also One Horse Size. Also Double Action Steel Jointed Pole Cutaway Harrows. (Can be Extended.) For Orchard and Farm. Send for Catalogue. If a Fruit Grower, send for our New Catalogue of Fruit Growers' Supplies.

**KINMUNDY, ILLINOIS**

Prune all shade trees, except maples, in March and April. Maples hard, soft and box elder must be pruned before midwinter or after the buds start. This on account of the sap flow which begins in March or earlier.

Cions for grafting should be cut before the least sign of growth appears. After the buds have begun to swell is too late. No date can be set as seasons are different but as a rule the middle of March is about the latest date when cions can be cut with safety.

Every one of our readers is respectfully invited to contribute to these columns. Short articles, notes, news, gossip,—anything of general interest.

Our veteran member, Geo. J. Kellogg, is with his son, L. L. Kellogg in Alvin, Texas.

### SURPLUS LIST OF NO. 1 STOCK ON HAND FEB. 18, 1911

#### APPLE

1000 Wealthy	800 N. W. Greening
500 Peerless	400 Duchess
300 Iowa Beauty	100 Walbridge
100 Fameuse	50 Talman Sweet
50 Longfield	50 McMahon
50 Wolf River	50 Pewaukee
50 Wis. Russet	50 Hiberna
50 Plumb's Cider	

#### PLUM

500 Wyant	500 Surprise
200 Lombard	200 De Soto
100 Hawkeye	

#### CHERRY

2000 Early Richmond	2000 Montmorency
---------------------	------------------

### GREAT NORTHERN NURSERY CO.

BARABOO, WISCONSIN

DROP A CARD FOR **Flansburgh's**  
**Strawberry Catalog for 1911**  
Reliable, Interesting and Instructive  
Highland, St. Louis, Golden Gate  
and all the best varieties—Address  
**C. N. FLANSBURGH & SON, JACKSON, MICHIGAN**

## Good Fruit *Requires* Good Spraying

It rests with you whether your apples are wormy, whether your trees lose their foliage and are eaten by disease. You can prevent all these losses by using

## GOULDS Reliable SPRAYERS



They make it possible to spray thoroughly with a fine, even mist that covers every leaf and inch of bark without wasting the liquid and without extra hard work.

Don't buy a cheap sprayer; it makes the work harder and is always out of order—they always cost more in the end.

Gould's Sprayers last for years. All working parts are made of bronze to withstand chemical action of spray solutions. "You can always depend on a Goulds."

#### Send for Our Booklet

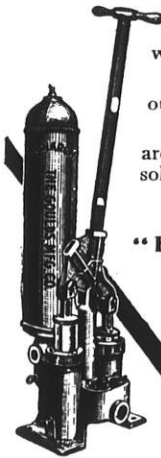
"How to Spray — When to Spray —  
What Sprayers to use."

It contains most valuable information about sprayers and spraying mixtures; how and when to use and all about them. We'll be glad to mail this to you if you say so, on a postal.

**THE GOULDS MFG. CO.**

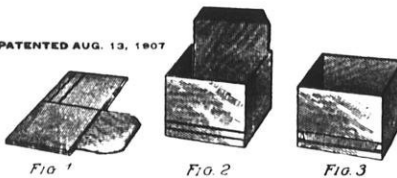
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**J. E. MATHEWSON**

Sheboygan,

Wisconsin

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

April, 1911

No. 8

## THE WISCONSIN FRUIT GROWERS ENVIRONMENT

Portion of an Address by

GEORGE GIRLING,

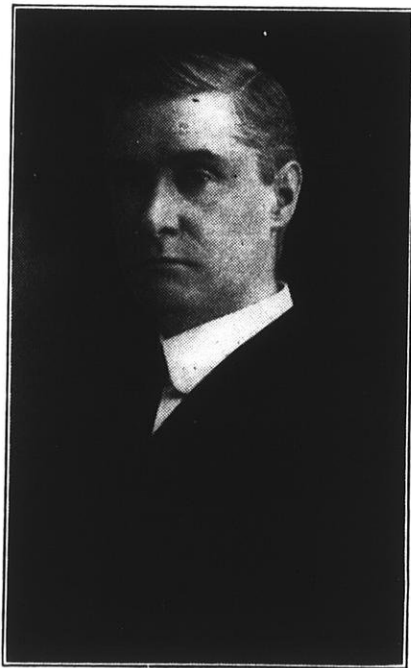
of Wisconsin Advancement Association at  
Annual Convention.

Mr. Joseph Chapman, a prominent banker of Minneapolis, said to the Wisconsin Bankers' association at their recent meeting: "I never believed in bankers' associations spending all the time in their conventions talking about rates of exchange and discounts." I likewise believe that horticultural meetings should not be limited exclusively to matters strictly horticultural. It is probable that the secretary knew that I was not an expert horticulturist so he would have me talk about the Fruit Growers' Environments. Let us, therefore, tackle the subject assigned. The one thing of utmost importance is life itself, and I first want to call your attention to the fact that in a recently published government list of mortality statistics of the various states the commonwealth standing at the head with the lowest death rate was the good old state of Wisconsin. Next to healthfulness comes the question of prosperity and I invite your attention to the fact that wherever on this globe of ours you find the maximum of prosperity it will be in a latitude and under climatic conditions similar to those of the same good old state of Wisconsin. Whether this condition is owing to climatic influences, fertility of the soil, the purity of the water, the energy of the people, or any or all of them is immaterial to the fact that it does prevail. The greatest vigor in manhood or womanhood, the greatest vitality in animal life, and the greatest perfection in vegetable life, are well known to prevail in this latitude.

In these days when conservation is so popular it is worth while noting that this industry which pays the pro-

ducer so handsomely and that robs the soil of least of all the branches of agriculture, flourishes most profitably only in such latitudes and climates as those of Wisconsin.

Blessed as Wisconsin is with an invigorating climate and fertile soil, adaptable to the production of a wide range of crops she is in no less degree blessed with that other essential to agricultural success and prosperity, the ample and nearby markets necessary to give value to food pro-



George Girling

ducts. Within the state and the four immediately adjoining states there are over 15,000,000 of people, while adding to this the four states bordering upon the great lakes to which Wisconsin products can be taken at a nominal cost of transportation, there are upwards of 39,000,000 of well developed human appetites or nearly one-half of all the people in the continental United States. Human appetites give the only value to food products that they ever had

or ever can have and it is no more useless to grow products in the absence of a consuming public than to grow them at such a great distance from the consuming market as to have all profits absorbed by transportation charges and deterioration in transit. The moral in this suggestion is not difficult to discover. From a standpoint of geographical location and transportation facilities, Wisconsin's markets are unsurpassed anywhere.

If in other respects the fruit grower in Wisconsin can produce results, in addition he is certainly blessed with environments with which he should be satisfied. Now let us take a look at the situation from the fruit growers' standpoint. The Wisconsin apple grower has environment conditions peculiarly suited to the production of apples for the fall and early winter market. In the production of these varieties he uses trees of early maturity, the greatest hardiness and maximum productiveness. He has no need for storage warehouses, no need to wait many months for returns while paying cold storage charges, but is able to put his products immediately into a market at a time when the apple appetite is keenest and when the supply is the lowest. He has practically no competition either by other fruits, which later enter the market, nor from extensive producers of the same varieties of apples. An examination of the market reports during the months when the Wisconsin apple as now grown, is on the market with its minimum freights, the absence of cold storage charges, the absence of the hazard in shipping and with consequent losses, will show that the Wisconsin grower receives a higher net return than does the orchardist in the regions that are now being so loudly proclaimed as the only place to grow apples. The future presents



a cheerful aspect when we know that the state of Wisconsin may multiply its apple products by 10 or 100 without having approached the limits of the immense markets that are within easy reach, and without having to add to our present varieties the so-called late keepers. I admire the energy and activity of those who devoted their time and thought to the development of new varieties of apples as well as other farm and orchard products, but it is my opinion that the development of new kinds of apples, especially the so-called late keepers, is entirely unnecessary in Wisconsin at this time, or any time in the early future. Our Duchess, Yellow Transparent, Wealthy, McMahan, Northwestern and Patten's Greenings, and two or three of the varieties of crabs that are so well suited to Wisconsin conditions furnish a list of varieties that as far as markets and profits are concerned amply fill our requirements. I am not attempting to leave out other varieties of which there may be champions here in this audience, but what I want to impress upon you is that you now have a market at your very door, which you cannot for many years fill, regardless of whether your varieties are few or many.

I will add here what I have often said elsewhere that the Wisconsin apple grower can produce his crop and put it on the market at a cost of less than the orchardists of many distant regions will have to pay in freight before reaching the ultimate consumer, and also he has the advantage of an active market before the apple appetite has lost its keenness or the market has become supplied with the many other fruits that affect the situation. And let me add the further thought that no matter what may be the relations of supply and demand in the near or distant future, the Wisconsin apple grower will be the last one to have his profits wiped out by a declining market, because of his unsurpassed location. The districts in Wisconsin suited to apple production are too numerous to be discussed fully in this brief time. The many districts are being rapidly developed and it is my opinion that

the recognized apple districts in this state will be markedly increased as the industry progresses.

The area in Wisconsin that is suited to cherry production is undoubtedly more limited than that which is suited to the production of apples. However, it is an unquestionable fact that cherry growing will be one of the industries for which Wisconsin will be noted, and which like our apples will have a practically unlimited market. With orchards producing from \$500 to \$800 an acre there is no question that cherry growing will be rapidly increased in the early future. I will not attempt to state the amount of new plantings that are being made in this state, for the reports are coming in so frequently it would be difficult to make up any schedule now that would be correct when the spring plantings are done.

The grower of small fruits in Wisconsin has the same advantage as to market that applies to the grower of tree fruits. He is able to grow a wide variety with most excellent returns and put them in the immense nearby markets while they are fresh. Regardless of what is said by the exploiters and special writers with reference to the returns to growers of small fruits in isolated sections, the fact is undeniable that the same grower located in the state of Wisconsin, where long distance transportation, deterioration, and other losses are not encountered would produce much more handsome results.

While the fruit growers in Wisconsin for many years at least may have little or no need for marketing associations, or any other associations to meet disadvantageous conditions, they do need and now have one of the best, strongest and most progressive horticultural societies that prevail in the United States. The society has done noble work in the past and its present prosperous condition both from the standpoint of membership and active usefulness presages its many triumphs in the future.

In closing let me say that while I have said little of fruit growing it is my candid belief that all that I have

said as to the strength of Wisconsin's position applies to fruit growing even more than to any other line of production from the soil. You have the climate, the soil, the productiveness, the markets, and pleasant environments—and what else would anybody want?

#### LOCAL CLIMATOLOGY.

A. L. HATCH, STURGEON BAY.

The climate of any place is usually modified by the physical features of the locality. Especially is this true from the standpoint of the fruit grower and gardener. Slight modifications of temperature from such causes may make the difference of profit or loss in many crops and make desirable a careful selection of site.

In a country of uneven surface like that of southwestern Wisconsin where the valleys are deep with abrupt slopes air drainage is very pronounced. The cold air settling in the valleys when the atmosphere is still is usually from six to ten degrees colder than that of elevations between. Killing fall frosts usually occur about three weeks earlier in the valleys than upon the dividing ridges. So important is this considered that orcharding is rarely attempted in the narrow valleys but is quite general upon the ridge land farms. Often but a few rods difference in site will make fruit culture either a success or failure as the site is elevated or depressed. In California I have seen hills terraced for lemons and oranges where twenty feet made the difference between profit and loss on account of air drainage.

Here in Door county under the influence of the waters of Green Bay and Lake Michigan air drainage is not so essential but still often of advantage. The higher lands of the peninsula lying along the western side from Sturgeon northward and from 150 to 200 feet above the waters of the bay will have excellent air drainage and contain thousands of acres of land that are being exploited for fruit culture.

The influence of the water upon the climate of this region is succinctly set forth in a recent bulletin by Maj

Hersey, as follows: "The effect of Lake Michigan and Green Bay on the temperature near the lake is very marked, giving decidedly cooler summers and much warmer winters. The effect decreases inland and becomes inappreciable in 30 miles. \* \* \* Kewaunee and Door counties covering the peninsula between Lake Michigan and Green Bay are quite free from damage by late (spring) and early (fall) frosts."

Among the climatic features that are peculiar to the lake region is that of the fog belt. Along the lake shore this becomes a very marked characteristic of the climate. For data concerning its prevalence I am indebted to Mr. Adam N. Dier, superintendent of the Sturgeon Bay ship canal. From eleven years observations the average duration of fogs during May was 40 hours; June 72 hours; July 71 hours; August 36 hours; September 28 hours; October 24 hours. Capt. Chas. L. Fellows, who resides on the shore of Lake Michigan in the southeastern part of the county in a recent letter says, "Strawberries ripen in about a week, and fruit trees bloom ten to twelve days later than inland, and frosts are later in the fall along the lake shore. The fog belt may be anywhere from one-half to two miles inshore,

and I think the fogs have no bad effect. We have, as a general thing, better crops, especially in a dry season, when dews are frequently so heavy as to make the eaves drip."

Another peculiar feature that affects the climate here is the winds from off the lake. The great mass of the lake cools our spring temperature and retards the bloom of all fruits, and especially where it comes more or less directly. Nowhere else have I seen so great an effect from wind breaks as here. Within sight of my house and not over 100 rods away, my neighbor gets strawberries every year from eight to ten days before I do and since he gets double the price I can the shelter of slope and trees seems to be important.

Until I came here I had always considered it a settled thing that we should let the winter covering remain upon strawberries as long as possible in the spring to retard their bloom. Here we found that letting it remain accelerated bloom while removal and exposure to the wind retarded it. Another queer thing is that our south winds in the spring and summer are always cool. In some instances we have noticed strawberries being earlier because of a wind break just south of them!

## A BRIEF DISSERTATION ON CRANKS

Being in need of some information on pears, real, good, reliable information on pears, we turned, without hesitation or second thought to Moyle. We always turn to Moyle when in doubt about pears but this time we presumed too much on his peaceable and peace-loving nature and referred to him as our "pear-crank," said that some were unkind enough to leave off the "pear," but far be it from us to do so, etc.

We got our pear answers all right and also the following. We leave it to you, gentle reader,—did we deserve this?

"People call me a crank, you bet.  
And I accept the name;  
For a crank is what you turn things with  
And it gets there just the same."

Say, didn't you know that eight-tenths of all horticulturists are off their trolley a little? There is no class except bee keepers that are worse; about nine-tenths of these are "off." I have noticed for a great many years that a pronounced horticulturist was a more or less limited crank.

Now you needn't think you are exempt, for I am going to classify them for your edification and I'll be modest by not placing you right out in the open, but let you do that for yourself.

First class.—The true blue horticulturist. Visionary, impractical day dreamers, seedling cranks, poor business men. You can tell them; they dress odd and disheveled.

Second class.—Professional men and those left with lots of somebody's money to spend. The *big red apple* appeals to them; all of them followers after Strange Gods.

Third class.—The two-tenths good, practical, hard-headed fellows that are making honest money out of their business without any tooting of horns.

Fourth class.—These are the people found in every organization or wherever humanity exists. They are like Brother ——. While they make great pretensions in horticultural lines you will find that the *filthy lucre* is the great incentive at the bottom. Take away the lure of gold and their ardor cools at once and they will turn their attention to other



Apple tree 4 years old, Wm. Daily's fruit farm, 1 mile West of Washburn, Bayfield Co.

lines. For we must live; either by our own sweat or by the other fellow's. Most or all nurserymen come under this head.

I trust this letter finds you not so busy but that you will be able to digest this little homily on cranks, and you are at liberty to place me where you please in it. I feel convinced, however, that you will be willing to acknowledge that I also know something about cranks.

Yours as ever,

W. J. MOYLE.

#### ADDRESS OF DEAN RUSSELL AT ANNUAL CONVENTION

(Continued from March number.)

If there is anything today which requires brains, it is the two subjects of dairying and horticulture. The handling of a dairy cow and the growing of orchard fruit requires a degree of concentration, a knowledge of scientific procedure and an application that is not met by any other phase of agriculture. That to my mind is one of the great advantages of the subject, because it gives an opportunity for the boy with brains, for the "laird o' pairts" to stay on the soil, and utilize the gray matter which the Lord gave him. We hear a great deal nowadays about the drain of the cities, that all our boys are leaving the farm. Why have they been going to the cities? Largely because there has been but little opportunity for them to use brains or gray matter in the agriculture of a generation ago. With the change which has now come, with the introduction of scientific methods, and the necessity of utilizing these methods, there is as large an opportunity for the boy with brains to use those brains on the farm as there is in the city, and you will find that many of them are staying under these new conditions, dairying and horticulture are the two phases of intensive agriculture that permit of the fullest utilization of these brains.

With this development which is spreading over the entire country, practically from the Atlantic to the Pacific, there has come the necessity of more than mere manual application and even more than scientific

procedure. We have got to know more than the mere matter of how to combat apple scab and codling moth, or how to handle this or that fungous pest, we have got to introduce methods of marketing and handling our products that are more up-to-date than they have been. When the farmer grew a dozen or twenty apple trees and put what he wanted for his own use in the cellar and then dumped the rest on the market, he got for that excess of fruit what it would bring, but what did it bring? The quality of the fruit was poor and has become increasingly poor with the spread of these fungous diseases, but with the application of these scientific methods we can secure perfect fruit, and that is the lesson which we are learning from the West today. There they are reaping the reward of their foresight, not merely from the application of these scientific methods, but from the fact that they have learned the art of combination, they have learned the art of marketing. They told me at Palisade in Colorado that the Fruit Growers' Association of that town had increased the value of the land twenty-five per cent; that is, a man's extra compensation for his fruit product was twenty-five per cent greater by virtue of the fact that they had combined and pooled their issues and handled their product by modern methods in comparison with the old method of competition. Now, when a bearing orchard is worth \$2,000 an acre, and you can add \$500 to its value by simply combining and handling things on a modern basis, is it not time that co-operation should be considered an important feature of the whole subject of horticulture? This method we have got to adopt in the East, in order to compete with the West. We ought to do it of our own accord, not only because of the increase in our own returns which we get from cooperation in this respect, but from the fact that that is the modern mode of dealing with things. It is the application of the corporation method which we find in manufacturing industry. We would not think of going back to the old fashioned meth-

ods of our industrial manufacture and do away with the corporation, even with all the evils that are attendant upon the corporation. There is that underlying economic principle that in union it becomes possible to do that which cannot be done individually, and the modern industrial world is moving toward cooperation, toward collectivism, toward the union of forces in this way, so as to eliminate the losses which would otherwise occur, so as to reduce the cost of operation, and thereby make it possible to secure larger profits.

Now, I hope in this new development of Wisconsin, in these districts where horticulture is bound to increase with great rapidity, as, for instance, in the Door county peninsula, or in the Bayfield peninsula, which seems to be particularly adapted to the raising of certain kinds of fruit, that we will be wise enough to take advantage of the sociological principle of cooperation and develop these Fruit Growers' Associations in the same way that they have in the West.

I was talking with a man from the Hood River country yesterday, and he said, "We have got all these pests that you have here, and we have to combat them regularly, but we are getting stricter and stricter every day. The time is going to come—in some states it has already come—where the state government steps in, and if you are negligent in the proper care of your own orchard, the state official steps in and puts an esd to the trouble by doing the work and charging it against you, just the same as when you will not build your sidewalk in this town, the common council has the power to build it and charge it against the property and you have got to pay it. Now, for the state to force you to take care of your own orchard might be called paternalism, but it is necessary, because of the fact that we are your brother's keeper and we cannot get away from it, and if we are negligent in our practice, permitting the spread and distribution of these maladies that will ruin our crops then somebody with more power than

the individual must take hold of the matter and control it.

The development of these associations in this way make such things possible. They are not merely selling associations, but they are associations for mutual improvement, and the great advantage, to my mind, in addition to the financial advantage, is the fact that these associations make possible the uplift and the improvement of their members along the lines of higher living. When you can get under the crust of apathy and ignorance and indifference, you completely change the man and if you can teach him in one way or another that it is necessary to spray his fruit trees you are going to reveal a new world to that man, and he is going to cast off those blinders that have blinded him in the past, and move on toward improved methods in other directions than merely the one by which you have first gotten hold of him. When you have done this you have transformed and converted him, but this must be done individually, it cannot be done collectively. It must be through the medium of individual contact and in societies such as this where you come for mutual benefit, to exchange your ideas, to give your personal experience, it becomes possible to receive a stimulus and an incentive which cannot be secured alone.

I thank you very much for this opportunity of appearing before your society and saying just a few words in regard to this very important subject.

#### A FAMILY AFFAIR

Considerable doubt was expressed at first regarding the life of this paper; nothing else exactly like it had ever before been attempted so far as we know. It was a new and untried field. There were many problems to face. Some of these have been solved but there are still some tough ones ahead.

The life of the paper is dependent of course on the will of the Executive Committee which is the governing body of the society, but the committee

will be influenced by the will of the members.

Everybody seems to want the paper and it will undoubtedly be continued if certain financial problems can be met.

One of two things must be done in the near future: raise the fee for membership to one dollar or make a separate charge of fifty cents for the paper. Either of these plans will put us on "easy street."

Add to this the hearty co-operation of the members in extending the circulation and we can easily have a twenty-four or even a thirty-two page paper.

The editor of this paper has been dreaming, "seeing things" all his life and many of the dreams have come true. His latest is a vision of WISCONSIN HORTICULTURE the leading horticultural journal in the United States with at least twenty-five thousand subscribers and every one a member of the State Horticultural Society.

Not in numbers alone did the paper excel but in power and influence, extending and building up the fruit, flower and vegetable industries of our state until Wisconsin ranked first of all states in these lines; an ever ready help to the grower, amateur or professional; a friend to the honest dealer and a terror to the evil-doer.

All of this "and much more than twice all this." A vision, a dream, and yet,—may it not easily come true? All that is needed is a little more money for present needs and a few thousand more members such as we now have.

Our present strength lies in the loyalty and cohesion of our members. So long as this spirit lives anything is possible. How many will help to make the dream a reality?

#### AN OMISSION

In the march number we had a four-column article on the Spaulding Nursery Company, but omitted an important detail of their operations in Waukesha county. We really owe the company an apology for the omission which is hereby freely tendered and we will do our best to make the matter plain. Here are the facts:

Agents of the Spaulding Nursery Company, operating in Waukesha county, last summer represented themselves as employees or officers of the United States Forest Service. It must be kept in mind that these agents were selling Catalpa seedlings.

#### FIRST AID TO THE BEGINNER

##### ABOUT SEED SOWING.

The garden rake is really a remarkable tool; nothing else is needed in seed sowing after the ground is spaded or plowed. A great deal more skill is required in the proper manipulation of the humble garden rake than in making fancy work or in playing billiards and a heap sight more satisfaction.

To pulverize soil to a depth of three or four inches and leave it level using only an iron-tooth rake is a fine art.

There are two sides to a rake, also two ends. The back is used by the 32nd degree gardener for making furrows for the seeds, any depth required, also to cover. In case a deeper furrow is needed, reverse and use the end of the handle,—the other end.

Seeds will not germinate until saturated with moisture, therefore pack the soil firmly over them in order that every particle of the seed coat may be in contact with moist earth. For this purpose use the rake as a tamper.

A fine seed bed and the soil packed firmly over the seeds are the first secrets of success; more will be revealed later.

#### CREDIT LIST

For the information of new readers we will explain that the credit list is a list of members who have forwarded new memberships during the month.

We are very fond of these people,—would like to publish their pictures also, if practicable.

A. Gropper, 1; H. M. Chase, 1; Dr. J. S. Batcheler, 3; E. B. Skewes, 2; John A. Hays, 7; Fred Beck, 1; B. R. Bones, 4; G. P. Bingham, 2; A. W. Riese, 2; J. F. Bertschinger, 4; O. G. Hammond, 2; Mrs. Geo. Fratt, 1; W. H. Marsh, 1; Geo. W. Lindgren, 1; Christ Saabye, 1; Leo Haertle, 1.



### HINTS ON PLANTING TREES

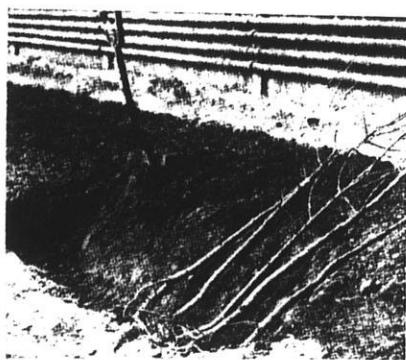
The following suggestions with slight changes are from Bulletin No. 18, W. S. II. S., issued March, 1910.

*Where to plant.*—The most desirable site for an orchard is an elevated well drained piece of land.

Soil drainage is of the utmost importance as apple trees cannot withstand wet feet.

Air drainage is also highly important and while a windbreak may occasionally be helpful orchards should not be surrounded by forests or heavy windbreaks or "pocketed" by neighboring hillsides.

A free circulation of air is second only in importance to thorough soil drainage, hence an elevated site.



Showing Method of "Healing in" Trees

*Slope.*—Other conditions being equal level land is to be preferred to any slope be it north, east, south, west or cornerwise on account of ease and economy in cultivation and freedom from erosion.

If only sloping land is available choose, first the north slope, next the east. A western slope will answer fairly well while the southern exposure is poorest of all. All of this refers to steep hill sides. On gently rolling land but little heed need be given to the contour.

*Preparation of soil.*—The soil should be deeply plowed and leveled. Pulverizing by harrowing or discing is not as necessary as for farm crops except in the case of sod. Trees may be set on spring-plowed sod land if the sod is well worked down with a disc.

Do not plant fruit trees among the stumps and brush of "cut-over" timber lands and expect good results.

It has been tried repeatedly in central and northern Wisconsin and always without success. The apple is a product of centuries of culture and demands the environments of civilization. Neither is it wise or economical to plant trees on such land with the expectation of clearing later—the fruit trees are in the way.

*Preparation of trees.*—This will take us back to the time the stock is received from the carrier. Small lots,—bundles,—of trees are usually wrapped in burlap and should receive immediate attention, as the packing is not designed to preserve the trees indefinitely but only until the stock reaches its destination. Unpack at once on receipt, spread the roots and cover carefully with moist earth or wet straw, preferably the former. These trees are living things and should be treated as such. Exposing bundles of trees to the sun and wind for two or three days is not fair either to the trees or the nurserymen. Play fair. If for any reason the planting must be delayed for several days the trees should be "heeled-in" as follows: Dig a trench wide and deep enough to accommodate the roots. Lay the trees separately in the trench with tops resting on sloping bank. Cover the roots with moist earth sifting it well among the roots. Tramp firmly and when the trench is filled cover again with loose earth. The heeling-in spot should be on well drained ground. Treated in this manner trees may remain for several days or even weeks if in a shaded and cool place. The same applies to bushes and strawberry plants. If trees are shrivelled when received bend down the tops after heeling-in and cover with moist earth. Often after two or three days they will be found to be plump and fresh.

*Planting.*—This is a simple operation although often invested with much mystery by the novice. If a tree is sound, roots and tops plump, it is a rather difficult matter to kill it.

Dig holes large enough to accommodate the roots after these have been cut back to sound wood. Fit the holes to the roots, not the roots to the holes. Trim broken and crushed

roots back to sound wood. Do not cut off more. The tree was deprived of about seven-tenths of its roots when dug. It will need all that remains. Don't worry about the fine fibrous roots about which so much has been written, these are dead anyway if the tree has been out of the ground more than an hour,—take care of the larger roots for it is from these that growth starts.

Protect the roots from the sun and wind every moment from the time the bundle is opened until the tree is set. When in the field throw a wet burlap or grain sack over the roots.

The hole should be deep enough to admit setting the tree about two inches deeper than it stood in the nursery. Sift fine earth about the roots and pack firmly. If the earth is moist and mellow, it cannot be tramped too firmly. It must be in close contact with the roots in order to enable them to take up the water it contains.

*Distance apart to set trees.*—In the case of apples this will depend somewhat on the variety. Such kinds as Wealthy, Tetofsky, Yellow Transparent, Longfield, Malinda and Windsor may be planted closer than McMahan, Duchess, Fameuse, Patten Greening, Wolf River, etc. If the trees are skillfully handled from the beginning as to pruning it is likely that the first named kinds can be grown without loss by crowding, for 20 years at least, if set 20x20 ft. or 108 trees to the acre. Most kinds, however, will require at least 24x24 ft. for best development.

Cherries and plums should be planted 20x20 ft.

*Pruning at planting time.*—The tree is now safely anchored in the ground but the work is not finished. At this point arises a very common cause of failure. Some of the branches must be removed or the tree is apt to perish. Before removal from the nursery the tree had sufficient roots to supply all of its buds with water. In digging, most of the roots have been (necessarily) removed, but the buds are left. When growth begins every healthy bud will push out and call on the roots for

water to feed its new-born leaves. The very limited supply that the reduced root system can pump up will be distributed equally and as a result none may have enough to develop its leaves and without leaves the tree must perish. We must, therefore, reduce the number of these water pumps by removing one-fourth to one-half the buds.

The drier the ground and the weather the more we should cut off. The manner in which the cutting is done will depend to a great extent upon the kind of tree or bush. In apples, plums, etc., we need to bear in mind the ultimate shape of the tree. The framework upon which the branch system is built is determined largely at this time. Remove crowding, crossing and interfering branches. Aim to leave the main branches spirally about the stem rather than opposite. The lower opposite branches in fruit trees from bad forks that may split down later. The same principles apply in the pruning of ornamental trees except that we aim at symmetry when removing large branches. The removal of a large part of the top is not less imperative than in the case of fruit trees.

These directions apply as well to cherries and plums except that these fruits are less exacting in regard to soil conditions.

### THE FLOWER GARDEN

The March number contained some suggestions about buying flower seeds, and a hint that directions would be given in this issue for making a flower garden.

These may be very brief. Some sort of success may be had in raising flowers in corners by the porch, around the house and in dinky little flower beds on the lawn but for genuine unadulterated fun and lots of flowers, whole loads of flowers, try the real flower garden.

Select the very best part of the vegetable garden, deep rich soil; work in all the fine well composted manure you can find on the premises; spade deeply, employing the English gardener's trick of digging "two spades deep" if you know how; rake and pulverize the soil until it is as fine as

ashes and then rake it again. All of this is to be done about May 1st to 10th, according to the season.

Use a lath beveled on one side to a sharp edge to make rows which may be laid out 12 to 14 inches apart with paths every fourth or fifth row.

The seeds of annuals cost five cents a package and at least a dozen kinds should be planted. (See March number.)

Most flower seeds are quite small and should be covered lightly, few if any being planted more than one-fourth of an inch deep with very fine soil. To prevent drying of the soil before germination cover the rows with boards. The garden should be watched carefully and as the seed-



The Informal Flower Garden

lings appear remove the boards. The rest is weeding, hoeing and perhaps watering.

This flower garden idea is not new, in fact it is the only way in which true flower lovers raise flowers. We do not mean what the florist calls "bedding" plants such as coleus, geraniums, cannas, etc. There is a distinct place for these in the decoration of home grounds although we too often overdo that sort of thing, but just flowers for cutting can be raised only in the flower garden.

Only a small space is needed or desired, 6x10 feet will do if space is valuable but three or four times this is not too much.

For early flowers some other plan must be adopted but for those who

are willing to wait until midsummer the results are soul satisfying.

### ASTERS

The aster belongs to autumn. Asters may be had in bloom in July or even earlier by selecting early sorts, sowing seed indoors and transplanting, but such early birds somehow seem out of season. The florist needs such flowers but in our flower garden we have so many other flowers that it seems almost a pity to force this beautiful autumn flower out of its season. When the heat of summer is past, when the cool nights come and even the cold rains, then the aster is in all its glory.

We need no greenhouse or hotbed in order to have asters in September and October, simply sow the seeds in the open ground early in May.

### ABOUT TRANSPLANTING

A word to the beginner: when planting trees, fruit or ornamental, keep in mind two things; first, that the soil must be packed firmly about the roots and that the top must be reduced to correspond with the shortened root system. Don't be afraid of hurting the soil or the roots. Little love pats will not do the work; put your foot down, backed by all of your avoirdupois, be it much or little, again and again until the job is well done. Then use the knife on the top.

### A BEE BILL

As stated in the March number a bill, No. 634a, introduced by Mr. Gettle of Rock county, provided that: "It shall be unlawful, and is hereby prohibited, for any person to spray any fruit tree after the opening of the blossoms thereon, with any substance poisonous to honey bees."

The intent of the bill, no doubt, was to prevent the spraying of fruit trees while in bloom with arsenical sprays, although not so stated.

No arguments will be presented here against the bill as there would seem to be no need of argument.

It is also unlikely than any arguments will be needed, such unreasonable measures usually die in the committee rooms.

# Wisconsin Horticulture

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Remit to Secretary W. S. H. S.,  
Madison, Wis.

### Planting month.

Plant a rose bush, a spirea and a  
syringa.

Grapes and wine at Ashland,--  
perhaps.

Plant a tree; if you can't get a  
tree, plant an acorn.

Fruit growing is never a game of  
chance. Luck never figures in the  
problem. Hard work and good judg-  
ment are the prime factors.

Just between ourselves; send in a  
new subscriber this month.

The main thing in selecting a  
garden site is to get a "workable"  
soil. Avoid heavy clay soils.

For the love of Mike don't plant  
shrubs in the middle of the front  
yard and spoil the nice green grass,  
the view and the lawn mower.

Don't be in too much of a hurry  
to get the garden seeds into the  
ground. Let the winter moisture drain  
out thoroughly before turning the  
soil. Soil that is worked while wet  
will be hard and lumpy all the season.

We hope sometime, within a year,  
perhaps, to print twenty-four pages  
instead of sixteen, but this will de-  
pend entirely upon the circulation  
and that depends very largely on the  
interest of our readers.

Extend the circulation and we can  
do almost anything.

About cropping orchards: remem-  
ber that you have started out to  
raise trees. The space between the  
rows need not be bare all season and  
if something can be planted there  
that will yield revenue, well and good,  
but never overlook the main crop,  
the trees.

We clip the following from the  
Washburn Times. Washburn seems to  
us a trifle far north for grapes but,  
—who knows?

Our Trial Orchard at Wausau was  
considered a foolish venture in 1897.  
After all, fruit raising is not so much  
a question of latitude or of soil as  
of the "man behind the tree,"—or  
vine.

These Hungarians may teach us  
something about grapes:

"Mr. B——— is engaged in the  
work of colonizing lands and is meet-  
ing with considerable success. Re-  
cently he sold nine forties of land  
just west of the city to twelve fami-  
lies of Hungarians who will move  
here in the spring from Pennsylvania  
and will go upon their lands and im-  
prove the same. The people buying  
the land expect to raise grapes for

fine wines and they are so sure that  
they can make a success of it that  
they will go into business on a very  
large scale. The people buying the  
land are all former residents of  
northern Hungaria where they say  
the climate is about the same as this  
region. Some of the finest wine  
grapes can be raised there and the  
people coming here believe that they  
can be duplicated in this country.  
They have selected land that lays  
well toward the south and they be-  
lieve that they will have no trouble  
in ripening their fruit."

### BIG BUSINESS AT BAYFIELD.

We clipped the following from a  
recent issue of Bayfield Progress:

"The Bayfield Peninsula Fruit  
Land Company is an incorporated  
company with an authorized capital  
of \$150,000. This company proposes  
to sell land in tracts of ten acres and  
up. They will sell their land im-  
proved or unimproved to suit pur-  
chasers. Persons wishing the com-  
pany to improve their lands will have  
the opportunity to pay so much down  
and the balance in monthly install-  
ments and the company will go on  
and clear the land and plant to fruit  
trees, cultivate, prune and care for  
the orchard in a proper manner for  
five years and then turn it over to  
the purchaser by a good warranty  
deed.

\* \* \* \* \*

"The company also will develop  
York Island and make it a summer  
resort. This island has all of the  
native timber standing. No timber  
has been cut and removed from this  
island and stands just as nature  
made it and will be made a beauty  
spot where cottages and summer  
homes can be built."

The controlling interest in the  
company is held by our fellow mem-  
ber, Mr. Wm. Knight of Bayfield.

Mrs. E. H. Merrill of Ripon re-  
ports a peony clump forty years old  
which bore last year 505 blossoms.

The writer has in mind a peony  
which is not less than twenty-five  
years old and blooms profusely every  
year. It is located in a deserted  
cemetery and directly under a cedar  
tree.

## Questions and Answers

### A FEW ABOUT FLOWERS

MOSTLY ANSWERED BY MR. WM. TOOLE.

How long does it take peony seeds to germinate under favorable conditions? How long before the seedling plants will likely bloom?

To furnish favorable conditions peony seeds should be gathered as soon as ripe and stratified in a box of sand which should be buried in the ground deep enough to prevent drying and yet permit freezing. Early in the spring the seeds should be sown not less than an inch deep or more than two inches.

The surface should not be permitted to become dry or crusted. They are slow to germinate and will not all come up at once. Some will commence to flower when three years old and they will improve with age so that it takes a number of years to decide on the merits of a new variety.

Best variety aster for cut flowers?  
A. G.

At present the one most useful variety of asters for cut flowers is the American late branching, to be had from the leading seed dealers. Some dealers keep up a better strain than others. This variety can be had in several distinct shades of which white, shell pink, and lavender are most used. The larger varieties of the comet class are earlier than late branching and are becoming very popular. When bred to give uniformly long stems they will take the lead. The best of these and the most beautiful aster grown is the Crego Pink aster; white of the same name is not so good. One dealer sends out white late Hohenzollern as a companion. Ostrich feather asters are fine but need improvement in length of stem.

How is the best way to get a good stand of oriental poppies from the seed?

Get good seeds and sow early in May in a well prepared seed bed. Cover lightly and press soil firmly. Shade bed with sheeting until seeds come up and carefully accustom

young plants to sunshine. Transplant carefully to a nursery bed late in August or early in September. Protect young plants with light covering and provide good surface drainage. Early the following spring plant where they are intended to flower.

Is the Killarney rose hardy?

The Killarney rose being a hybrid tea is not hardy in this latitude but with winter protection can be very successfully grown here. Late in the fall bend over as close to the ground as possible and stake with three or four small stakes to hold it down. Cover with leaves and rough manure six inches to one foot deep. Uncover before the buds start in the spring and tie up to stake.

FRANK OVENDEN.

Can Rhododendron Maximum, and Catawbiense be grown with protection in Wisconsin?

No. If plants are removed in fall to cool greenhouse fair success may be had.

"C."

ALL ABOUT CURRANTS, BRIEFLY TOLD.

A POSTAL CARD MANUAL.

Perfection, Red Cross, Wilder in order named. Plant two year old first quality bushes, anything else a loss in end.

Currants must be mulched heavily to bear well. Sprayed, especially to keep worms from eating leaves. Old wood pruned out, bush kept somewhat open, free from weeds and grass.

Rows seven feet apart, five feet apart in rows.

On proper ground and mulching and with proper attention I think pays well.

E. E. DUNNING.

A MANUAL ON GRAPES.

We requested of Brother Reigle a complete manual on grapes for first year, to be written on a postal card. Here it is. Can you beat it?

Varieties, Concord, Worden and Moore's Early. Try 2 yr. No. 1 vines. Plant deep after pruning roots so as to leave about two-thirds of the root system attached to the cane. Spread the roots as widely as possible and firm good top soil about them. Cut cane back leaving two strong uninjured buds. For the home garden

## GRAPE VINES

Largest Stock, Best Varieties, Best Grade. Guaranteed True. We invite correspondence from parties intending to plant

Catalogue and Price List Free.

T. S. HUBBARD COMPANY, GRAPE VINE SPECIALISTS  
Established 45 Years. FREDONIA, N. Y.

## Hardy Nursery Stock Adapted for the NORTHWEST

We offer a complete line of Fruit, Shade and Ornamental stock. Varieties that will suit your needs.

*Berry Plants, Rhubarb, Grape Vines, Asparagus in the Leading Sorts.*

Garden and Commercial Orchard Planters will do well to write to us. Prices consistent with Quality.

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## McKay Nursery Co.,

Pardeeville, Wis.  
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PROPRIETOR

Cherry Trees by the  
100 or 100000

The Growing of Cherry Trees has been our Specialty for Years. Our soil and method of growing produces a Tree that is not excelled by any one. Splendid blocks of two-year 5 to 7 foot trees and one-year 4 to 5 foot trees. Early Richmond, Montmorency and other leading varieties by the 100 or car load. We also grow a general line of other Nursery stock. Personal inspection invited. Correspondence solicited



do not plant Concord nor Worden less than seven feet apart each way, —greater distance provided there is plenty of room. Moore's Early may be planted six feet each way but more space is better. Clean and frequent tillage imperative for best results.

G. W. REIGLE.

A member from Green Bay sends the following interesting questions about shrubs and vines.

Q. Which Ampelopsis (Veitchii or Englemanii) would you advise me to plant around a porch facing the south and west? The building sets up on a knoll and can get good sweep from winds coming off Green bay which body of water is just one mile away. I live seven miles northeast from the city of Green Bay.

A. Englemanii or Virginia Creeper. The Veitchii or Boston Ivy is not hardy in Wisconsin.

Q. About what distance apart would you plant the above climbers and how far away from foundation wall?

A. About one foot from foundation wall and four feet apart for quick results. One vine will in time (5 or 6 years) cover entire porch.

Q. Will Englemanii cling to a pressed (smooth) brick wall without support?

A. Yes.

Q. How far should shrubs be planted away from foundation?

A. One foot or more.

Q. Could evergreens (such as Arbor Vitae, Juniper and Mountain Pine) be massed around a porch and produce a nice effect such as deciduous shrubs? In planting I would like to get winter effects.

A. There is a dwarf Arbor Vitae, globular in outline that rarely exceeds three feet in height that could be used for this purpose. The dwarf Juniper and dwarf Pine, Pinus Mugho would be excellent for a few years but would eventually grow too large for the situation.

Q. The books that I received explain very well the pruning of fruit trees but (as you can readily see by questions, I am an amateur). Will this apply to Elm and other ornamentals? If convenient could you

make a rough drawing showing me how to prune an elm or soft maple (say the average 8-10 foot nursery tree) about to be transplanted.

A. Elm, soft maple and other ornamental trees should be severely pruned at planting time. We can best control the shape of elms by removing *all* branches close to the trunk when transplanted.

Q. What would be the best deciduous plant for a hedge to have the following qualities? To turn cattle, dogs and children. To produce a fine winter effect. Not to sucker. To endure shade of trees that may be planted along street?

A. The first and third requirements are met by common barberry. The native dogwood, cornus stolonifera will make a dense hedge if cut back for one or two years. is very attractive in winter and will sucker but little in sod.

Q. Can you name me an evergreen for a hedge with the above qualities also. Of course I would like a hedge that remains nice as it grows old.

A. Common Arbor Vitae.

#### LIMESTONE FOR FRUITS.

Q.—Of how much importance is limestone to soil, for fruit culture?

A.—I consider lime in the soil that is available for the use of fruit trees as essential—without it failure is almost certain. Where limestone prevails as bed rock just underneath the soil and superincumbent clays there is pretty sure to be plenty of available lime in the soil. Even in regions where limestone is wanting as in some portions of New York, there is lime in the soil. With limestone there is associated a very fine clay that is one of the finest of all clays to give health and hardness to fruit trees.

Where lime is wanting in soils they become sour and give a decided acid reaction when tested with litmus paper or alkalies. This is the condition of most swamp soils and of many old fields in Wisconsin today. Readers of *Hoard's Dairyman* are reminded of this almost every week and those who have such soils are urged to apply ground lime rock

## FIRST CLASS NURSERY STOCK IN GREAT VARIETY

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## FRUIT, SHADE AND ORNAMENTAL TREES

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Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

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## JEWELL MINNESOTA GROWN Nursery Stock

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LAKE CITY, MINN.

1500 Acres

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or marl to correct this condition. Caustic lime either fresh or air slaked is not recommended for this purpose. If I had sour soils that I desired to grow fruit upon I would correct it with ground lime or marl. If I were seeking a location for fruit culture I should surely go to a region where limestone soils abound.

#### VETCH AS A COVER CROP.

Q.—Does vetch make a good cover for Wisconsin orchards?

A.—Vetch is a good cover crop for Wisconsin orchards where it is desired to add nitrogen to the soil. It is one of the best nitrogen gathering crops which we have, and owing to the fact that it lives over winter and makes considerable growth in the spring adds a considerable amount of vegetable matter to the soil as well.

In the experiments with cover crops at the university the only objection which was found to vetch was that where a dry season followed its sowing it did not make as heavy growth as some of the other crops, and therefore did not prevent deep freezing to the extent that others did. Another thing which must be considered in the use of vetch as a cover crop is that it should be kept within the confines of the orchard. It may become more or less of a weed if allowed to get thoroughly started outside.

Q.—At what time should it be planted as such to get a good stand before winter sets in?

A.—The time of sowing vetch as a cover crop should be dependent more upon the condition of the orchard rather than the amount of growth of the vetch to be secured before winter sets in. The usual time for sowing the cover crop is from the first to the fifteenth of July, depending upon moisture conditions. If the vetch is sown at this time and the average season prevails, it will make a good growth before winter, although it will not make as luxuriant a growth as some other crop as Canada peas.

Q.—Which is best for this purpose, spring or winter vetch?

A.—Only the winter vetch is used as a cover crop for orchard purposes.

Q.—Is it best to plant it alone or plant oats or barley with it?

A.—At the university we always sow the vetch alone. I do not know as there is any reason why it could not be grown with oats or barley other than the fact that these other crops will make more rapid growth, and might have a tendency to smother out the vetch before it got a good start.

Q.—When plowed under in spring will it be as good a fertilizer if winter killed as it would be if it were turned under green?

A.—Vetch, when used as a cover crop, should not be plowed under before spring, and if the proper kind is used will not winter kill. Therefore the question of whether it will be as good a fertilizer if plowed under in the spring as if plowed under in the fall does not enter into the question of value of vetch when used as a cover crop.

#### A MISCELLANEOUS BUNCH

THE EDITOR MAKES A STAB AT THESE.

Can any variety of nuts be grown in Wisconsin?

The butter-nut, *Juglans Cinerea*, is hardy in southern Wisconsin and will bear at 12 to 15 years from seed. The black walnut, *Juglans Nigra*, and hickory, *Carya Sulcata*, are both native south and west of Portage and scattering trees are found north as far as Wausau. These rarely bear under 20 years. The hazel is common but we have never seen it under cultivation.

Is there a more practical way of protecting trees from rabbits and mice than by covering with wrapping paper?

Veneer, wire netting, cornstalks, rye straw and various other materials may be used. If tarred paper is used it should be removed in spring. Various washes, both poisonous and offensive, have been recommended but the difficulty lies in their lack of adhesive qualities.

Is land ten miles away from Milwaukee worth \$25 to \$50 more an acre, than just as good land a hundred miles away, meaning it for an 87 acre farm and intending mixed farming?

No, if near a railroad and shipping point. If for a fruit or vegetable farm or production of milk for city trade the land near Milwaukee might easily be worth \$100 more per acre than that 100 miles away.

Are ants injurious to plants? How?

If yes, how can they be eradicated?

## The Great Northern Nursery Co.

Sells First-Class

Wisconsin Grown Trees

**Our Trees Live.** We had an opportunity to compare 500 of our Wisconsin grown trees with a similar lot of an Eastern Nursery. At the end of the season only 52 per cent of the eastern grown stock was alive, while 95 per cent of ours lived and grew. Moral: buy home grown stock and avoid loss. Our trees are **HARDY**, and our stock is **HEALTHY**. A comparison will prove that our stock has not the willowy and watery soft growth of southern or eastern grown stock.

Every tree and shrub is packed entirely under cover, free from exposure to sun and wind.

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Write for Catalogue and Price - List.

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**FREE TO ANY ADDRESS**

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**PANSY HEIGHTS, BARABOO, WIS.**



**COFFEE**  
**ONE CENT PER POUND**

**Salzer's Famous French Coffee**

A wholesome drink! The healthiest ever; you can grow it in your own garden on a small patch 10 feet by 10, producing 50 lbs. or more. Ripens in Wisconsin in 90 days. Used in great quantities in France, Germany and all over Europe.

Send 15 cents in stamps and we will mail you a package giving full culture directions, as also our Mammoth seed catalog free; or send 51 cents and get, in addition to above, 10,000 kernels unsurpassable vegetable and flower seeds—enough for bushels of luscious, different vegetables and brilliant flowers.

**JOHN A. SALZER SEED COMPANY**  
788 South 8th St. La Crosse, Wis.

Ants feed on the sticky and presumably sweetish exudation of plant lice and foster by various means their propagation and spread, even carrying the plant lice to new feeding grounds. In this way ants are injurious to plants.

What grass seed is the best to sow in shade on clay?

Orchard grass.

#### ABOUT FRUIT TREES. ANSWERS BY C.

Is sawdust good mulch for apple trees?

Why mulch apple trees? Cultivate. If the trees must be mulched a reasonable amount of sawdust probably will not injure them.

Has the Delicious apple been tested in Wisconsin and if so when and by whom?

Not extensively. Several thousands of trees are now growing in the state but we have not heard of any in bearing.

Will apples from a nursery in Waupaca county do well near Milwaukee? Ten miles west, or is it more advisable to buy trees and shrubs grown in the vicinity?

Waupaca grown trees should do quite as well as those grown in Milwaukee county. The same is true of shrubs.

What varieties of apples will do best on rather low, moist clay or clay loam? Soil water three to four feet deep?

None. Select a better soil and location or plant cattails.

Are apple trees injured by mid-winter pruning?

Depends on the climate. Heavy midwinter pruning in Wisconsin usually results in checking or splitting of heartwood of larger branches and killing back of stubs of smaller branches. Better delay pruning until March or April.

Is it worth while to spray apple trees that are otherwise not cultivated?

Yes; but if the trees are worth spraying they must also be worthy of cultivation. By all means spray, this may lead to something better.

How close can Wealthy apples and Duchess be planted for commercial purposes and not be crowded?

## LA FOLLETTE A GREAT STRAWBERRY

The best plant-maker, most healthy, vigorous, productive, and the best seller of forty varieties grown by us the past eight years. The La Follette is a seedling of President McKinley and originated in our nurseries, being selected from several thousand seedlings grown by W. J. Moyle as the best in the lot. We have tried it out under all conditions, and it has proved a winner every time, out yielding all others, being large, firm, good color and bringing the top price on the market.

Price 50c per 12, \$2.00 per 100, \$15.00 per 1000

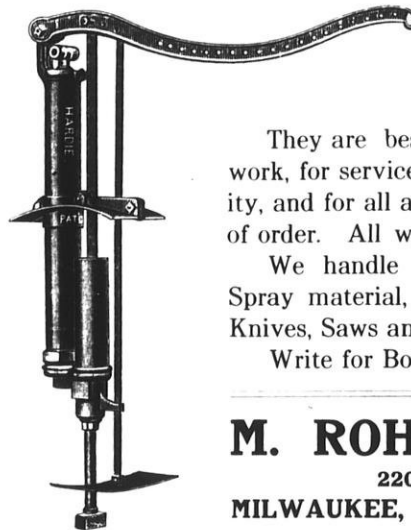
50 and 100 Rates by Mail Postage Paid

### Special Offer to Readers of the Wisconsin Horticulture

To every one placing an order for 100 La Follette strawberry plants before April the first we will give free any one of the following premiums: 12 Stevens Late Champion strawberry plants, 5 Hardy grape vines assorted colors, or 5 Dudley apple trees one year grafts.

### Wisconsin Nurseries, Union Grove, Wisconsin

W. J. MOYLE, Proprietor



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Are the renowned Sprayers with  
THE TROUBLE left out. : :

They are best on the market for all around work, for serviceability, for efficiency, for reliability, and for all around work. Nothing to get out of order. All working parts made of brass.

We handle a full line of Sherwin-Williams Spray material, Insecticides, Fungicides, Pruning Knives, Saws and other Orchard Supplies.

Write for Booklets.

## M. ROHLINGER & SON

220 WISCONSIN STREET

MILWAUKEE, WISCONSIN

## OLDS' 1911 SEED CATALOGUE IS NOW READY

*It tells the truth and shows things as they are.*

We have a *New Barley* this year, the "*Sweepstakes of the World*," developed at the Wisconsin Experiment Station from the famous Oderbrucker.

*Krueger's Blue Ribbon Wheat* secured the *Highest Award* as a *Milling Wheat* at Omaha last year in competition with the whole Northwest. Originated in Wisconsin and adapted to our conditions.

*Olds' Golden Russet* and *Pat Murphy* are two new potatoes that were introduced this year. See what the catalogue says about them.

*Fancy Montana Alfalfa* and *High Grade Clover*, *Alsike* and *Timothy* are specialties of ours. Ask for prices and samples.

We want your orders. Write at once for a catalogue. Call at our store when in Madison and see what we have. We have *Garden Seeds* of all kinds. Also *Tools* and *Poultry Supplies*.

Drawer 65 L. L. OLDS SEED COMPANY, Madison, Wis.

Depends somewhat on latitude, soil, and culture. In some orchards we have seen trees that would never crowd no matter how close. In Manitowoc county 24x24 feet is a very liberal distance.

Of which, McMahan or Duchess, would you set most of?

McMahan.

Would it not be well to set some Tetofski in a commercial orchard?

E. R. P.

A few. Will depend on local market. Tetofski is very tender and does not ship well.

Would it be advisable to set any Pewaukee (Jackson Co.)?

No.

When is the best time to cut scions for root grafts?

October or November.

I now have some Pewaukee and Gano 33 feet apart. Can I plant fillers among them? If so what variety of filler would you recommend?

A yankee would answer this question by asking another,—why didn't you plant close at first? Plant Duchess as fillers one way, leaving one 33 foot space.

What is the proper distance to set apple trees in the Lake Superior district?

A difference of opinion prevails as on all horticultural questions. Twenty by twenty feet seems to be popular although some orchards are planted 24x24 feet. At 20x20 the trees will scarcely touch at ten years and twenty years may elapse before serious interference occurs. The first named spacing allows 110 trees per acre, the other but 75.

Is it possible to cleftgraft the pear on the apple and the apple on the pear?

Possible but not practical.

What varieties of apples would you recommend for northeast Clark county on a sandy clay soil one to three feet deep, then a sand and gravel subsoil?

None, for commercial orchard. For home use try Duchess, Patten Greening, Longfield, Malinda and Wealthy.

What variety of pear would you advise for commercial purposes? Is Lawrence good?

We would plant for a commercial orchard of 100 pear trees in Wisconsin as follows: 20 Tyson, 20 Howell, 20 Seckle, 20 Sheldon, 20 Keiffer.

Other good varieties are Aryan, Clairguc, Duchess and Clapp's Favorite. Bartlett is good in protected locations near the lake. The Lawrence is too small and inclined to crack and scab.

W. J. MOYLE.

### HILL CULTURE OF STRAWBERRIES

This question comes up regularly at every convention and frequently between times.

In some places and under certain conditions hill culture may be profitable, but not in Wisconsin. Either the full matted row, the half matted row or so-called hedge row is best adapted to our conditions. However, the following from *Farm and Home* shows that the hill system may be profitable on high priced land.

"In the district around Hood River, Oregon, the growers are raising strawberries on land valued at one thousand to twenty-five hundred dollars an acre. They pay for irrigation privileges, and during the busy season of cultivation they pay as high as three dollars per day for hired help in plowing, hoeing, etc.

"Yet on this high-priced land and with these heavy expenses, they are making a success of the business financially. The care they give to their berry fields enables the plants to produce fancy berries that have established a reputation in the markets which make them in demand at top prices.

"The Hood River growers have found that the Clark's Seedling strawberry grows to perfection in that locality, and they are growing that berry almost exclusively. They set the plants in rows thirty inches apart and fifteen inches in the row. All runners are kept cut off as fast as they form, and by this means they force the original plant to grow a number of crowns in a cluster around itself, and each of these crowns puts out fruit stems.

"By this way of treating the plant, instead of having a wide row set with plants, as they would if the run-

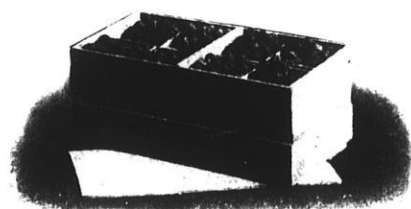
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DROP A CARD FOR **Flansburgh's**  
**Strawberry Catalog for 1911**  
Reliable, Interesting and Instructive  
Highland, St. Louis, Golden Gate  
and all the best varieties—Address  
**C. N. FLANSBURGH & SON, JACKSON, MICHIGAN**

## Dudley Apple Trees Three Year Number One.

We have still unsold 350  
Dudley three year No. 1.  
Write for catalog and prices.

## Henry Lake Sons Co.

Black River Falls, Wisconsin



ners were allowed to grow, they have a cluster of fruit-bearing crowns occupying a small space. This method of growing the plants makes it easier to cultivate the ground than when grown in the matted row. The berries grown in this way are larger and finer than when grown in the matted row."

#### EDUCATION

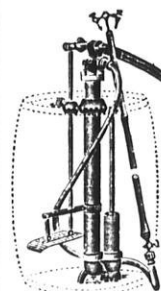
At the recent Farmers' Conference Col. Duncan McGregor delivered an address on "Education," a part of which follows. Particular attention is invited to the description of that benighted class "not delighted with bud or blossom."

We have sought for years proper and appropriate terms to fitly describe this class but never found words that seemed fitting. We accept Mr. McGregor's description as adequate.

"Education trains the esthetic side of the being, heightens the appreciation of the beautiful, cultivates the taste and at the same time makes it harder to endure what offends taste. Under the influence of education, the farmer's home has become not only more comfortable and sanitary but more beautiful. It is now rare to see such untidy, slovenly and repellant surroundings of the homestead as were common not many years ago. The tribe of rural slovens is not yet extinct, and some specimens still remain of his urban cousin, but in

general farmers' homes are comfortable, surroundings neat and tasteful. Paint and vines lend attractiveness to the outside of the house while a well kept lawn with shrubs and flowers give charm to the out of doors. As you drive along our highways you are pleasantly impressed with the attempts made to give the appearance of neatness to the surroundings,—the approaches to the real home. We justly credit this to higher ideals in education. But there is one class of homes that has not kept pace with the farm homes on the one hand and the city on the other, they are the homes of the villagers. The hamlet or the village is the most neglected of all human habitations. Here is the least evidence of an attempt even of anything like neatness or taste, either in house or surroundings. Some years ago there was a partial census taken of the early environment of some thousand or more of our successful business and professional men and it was found that by far the largest proportion were country bred, the next in order city, and the smallest proportion were village born and bred. Of course there is a reason for this. Every effect has its cause though we may not always be able to find it. It is possible, however, that the surroundings of the country boy with the daily and regular duties or chores are a good foundation for that industry and regularity of life that contribute so much to success. The

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success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

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FOR THE GARDEN

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Sheboygan,

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## WINTER APPLES OF QUALITY

YOUR attention is called to three great Wisconsin winter apples. Gem City, Tuttle's Winter and Hanko. Quality excellent, will keep in ordinary cellar until spring. Trees are hardy. What more do you want? Write us now and secure some of these trees for delivery fall 1911 or spring 1912. If you delay you may be too late.

We still have a fine line of all stocks that are hardy for this climate. Send us a list of your wants. New Catalogue in January.

### SPECIAL PRICES ON THE FOLLOWING STOCK IN QUANTITIES

300 American White Elm..... 5 to 6 feet	150 American White Elm..... 8 to 10 feet
200 American White Elm..... 7 to 8 feet	100 European Mt. Ash, 100 Butternut,
100 Black Walnut, 1800 White Snowberry, 700 Spires Vanhoutte.	

SEND FOR ADDITIONAL SURPLUS LIST

**HENRY LAKE SONS COMPANY,**  
BLACK RIVER FALLS, WISCONSIN

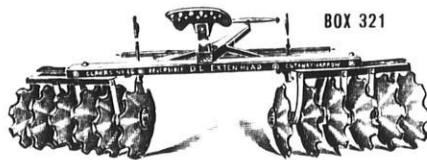
country is unfavorable to the breeding of loafers. The city, too, with its hustling business spirit, its police forbidding lounging on streets or dawdling in places of business, forcing young and old to move on or be run in, gives little countenance to the loafer. But the village with its stores open as lounging places to everybody, its shops where visiting is encouraged and questionable stories often told to regale the ears of young, where life is on the free and easy plane and anything is good enough for everybody, there is great temptation for idling and loafing and even for the formation of habits and tastes that are of a more active and vicious type. This may in some measure account for the meager output of noted and successful men from our village communities. But can there be any relation between this and the slovenliness that prevails in and around village homes? Let me here say that the older villages are greater offenders than the newer. We believe that there is a close relation and that if means would be taken to make village homes more attractive the character of the human output would be improved.

"Let me suggest a remedy that I am sure will do much good even if it does not overcome the unfortunate result to which I have referred. And that remedy is in some way by some means get the villagers to clean up their premises, take pride in their homes. The front view of many of the homes is bad enough, but the rear view is in very many cases simply unspeakable. Recall what you have so often noticed as you passed through some village and the not very complimentary reflections you indulged in. If I am not mistaken, you have sincerely wished that the accumulation of boxes and barrels might be either burned up or better, cut in stove lengths, neatly piled and saved for kindling, and that the litter of discarded tin cans, broken crockery and unsightly junk might be buried out of reach of the gardener's spade. But you would not stop there. You would have the ground spaded and devoted to the growing of vegetables for the family table. What a change would then

be wrought in the appearance of the village and no less a change in the self-respect of the community. And these conditions of extreme slovenli-

ness exist in face of the fact that a large part of the leisure time of the community is spent by men in loafing and gossiping by the boys in tak-

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ARE THE BEST IN THE STATE OF WISCONSIN

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Fully Comply with most rigid requirements of Insecticide Act of 1910



Grasselli Arsenate of Lead is being successfully used to destroy all leaf-eating insects, such as Codling Moth, Potato Beetle, Curculio, etc.

The Grand Sweepstake prize of \$1000 for the best carload of apples shown at the National Apple Show, Spokane, Washington, has been won by users of Grasselli Arsenate of Lead for the last three years.

Grasselli Lime Sulphur Solution is the Standard remedy for San Jose Scale. It has also come into prominence as a summer spray to replace Bordeaux Mixture.

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Every Fruit Grower should send for our Booklet—  
**"How to Spray—When to Spray—What Sprayers to Use"**

It goes into the subject of sprayers and spraying mixtures very thoroughly. We'll be glad to mail it to you upon request.

**THE GOULDS MFG. CO.**  
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 We make all kinds of hand and power pumps for farm use.

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Hardy Fruit and Ornamental Trees, Shrubs and Plants

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**FIFTEEN HUNDRED ACRES**

**60 VARIETIES STRAWBERRY PLANTS**

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George Rentschler, Proprietor

Trees and shrubs for street and lawn. Bulbs and hardy garden plants. A full line of fruit trees, bush fruits and strawberry plants

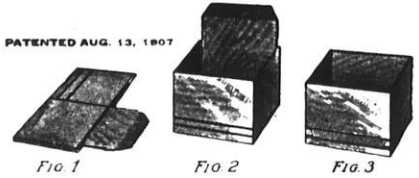
**Madison - Wisconsin**

ing lessons in vice from their elders. Teach the boys and girls of the village to take pride in their surroundings and the improvement in the environment will be great but in the young people it will be incalculable. Set the young people at making flower beds, planting shrubs, and growing vegetables and you have them on the road to good citizenship. Then, too, the boys and girls will get help from the women of the family and even the men may be enticed to leave their cronies of a summer evening and join the rest of the family in enjoying the brightness of the flower border and in helping to weed, water and hoe. The immediate punishment of the Fall was banishment from the garden; the delights of Paradise come with the return to the original occupation. A person, man or woman, old or young, who is not delighted with bud and blossom, with plant and shrub and bush and tree, especially when they develop under his own care or the care of his household, is abnormal, a monstrosity, a pervert, a defective, a degenerate, a departure from the human type, or what else shall we call him?—simply a loafer. If you have a name that indicates a degree of worthlessness greater than that, use it. He deserves the meanest epithet you can apply to him."

Mistakes will happen even in the best regulated households. On page two of the February number figures 3 and 4 were reversed. The legend below these cuts states that figure 3 represents cherry buds and figure 4 plum buds. This is wrong; just reverse statements and all will be lovely.

## EWALDS FOLDING BERRY BOX

PATENTED AUG. 13, 1907



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Send us your list of wants and place your next order with

### The Most Northern Nursery in the State.

Fruit, Shade and Ornamental Trees, Plants, Vines, Roses, Evergreens.

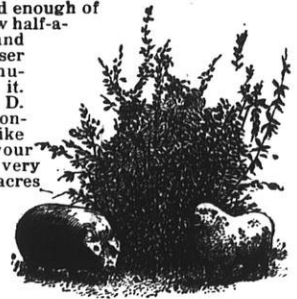
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We have sold enough of this seed to sow half-a-million acres and every purchaser has been enthusiastic about it. Ex-Gov. W. D. Hoard of Wisconsin writes "I like the quality of your Alfalfa Clover very much. On 30 acres I raised over \$2500 worth of Alfalfa Hay. There is no better money crop that I know of."



You sow Salzer's Northern Grown Alfalfa and get three rousing big crops, in May, July and August, besides having the best of pastures. It will do this on any farm in America where Timothy will grow. Get full particulars. Write for our 1911 catalog. It's free.

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Here's our great trial collection at one cent a package, composed of *Speltz*, the cereal and hay wonder, *Silver King Barley*, a world beater with 1.3 bu. per acre, *Bonanza Oat*—sown four farms in 1910—biggest sown to yield 259 Bushels per acre! *Billion Dollar Grass*, the ten-ton grass wonder, *Salzer's* luxuriant *Alfalfa*, and five other packets, all ten for 10c in stamps. Write for this collection today and we'll also send you a free copy of our great 1911 catalogue.

**JOHN A. SALZER SEED CO.**  
 268 South 8th St., La Crosse, Wis.

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

May, 1911

No. 9

## THE PLANTING OF SHRUBS AND PERENNIALS

C. PHILLIPSON, OSHKOSH.

Man may be refined and happy without a garden, he may even have a home without a tree, or shrub or flower; yet when the Creator wished to prepare a proper home for men, he planted a garden, and placed this noble specimen of creative power in it, to dress and keep it.

The space in front of the house, and generally the sides exposed to view from the street, should be in grass.

One great mistake that is often made, is to literally cover the lawn with trees and shrubbery, grass cannot grow well among the roots and under the shadows of trees and shrubs; the main part of the lawn should be left unbroken by any tree or shrub. The shrubbery should be in clumps or groups in proper places, and so thick as to cover all the ground; the soil under them should be kept cultivated and clean. Do not set the bushes in holes dug in the sod.

Here in our northern state where the severe winters set in early and last long the planting is best done in the early spring as those planted in the fall do not become sufficiently es-

not all the shrubs and trees listed as hardy in catalogs are hardy in our state. Among some of the desirable shrubs are the various *Spiræas*. Anthony Waterer is the best crimson or



Dielytra or Bleeding Heart thrives in any part of the Hardy Border. p. 2

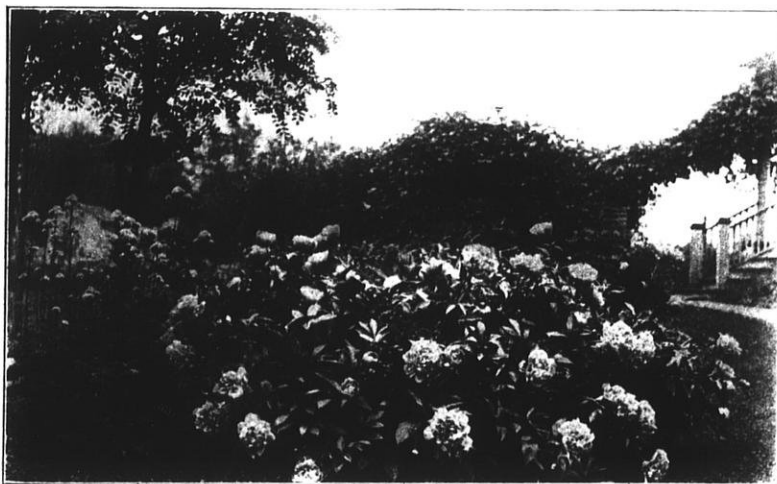
tablished to stand the severe cold while spring planted shrubs rarely fail to do well if they are moved while dormant. It is best in trans-

red and Van Houtte the best white, and is especially valuable grown as a single specimen; a border of the common white Elder is a pleasing sight when in full bloom; the Golden Elder, Hydrangea and others make very pleasing groups.

Many rapid growing trees may be utilized as shrubs by cutting them off near the ground every year or every other year and allowing young shoots to grow. The hardy climbers must not be forgotten. They furnish the drapery of the garden and when once planted get better every season.

### PERENNIALS.

This class of flowers does not usually keep in bloom a long time, and therefore are not suited for the lawn where a continuous show of flowers or pretty foliage is absolutely necessary, but should be planted by themselves in a border in a somewhat retired part of the garden. They do not blossom the first year from seed, but merely grow and gather strength for next summer flowering. The seed may be sown in early spring



Peonies are Old-time Favorites that ought to be in every Garden. p. 2

Plant in borders on the side of the lawn, in the corner by the steps, in front of the porch, at the corner of the house, almost anywhere except in the center of the lawn.

planting to reduce the top by cutting back, and the broken roots removed with a sharp knife. Plant only those that are hardy and recommended by our Experiment Station as such, as



with the annuals, or later in the summer, but if sown late give the seed-bed a cool, damp place or keep the ground shaded and quite moist until the plants appear, or very likely the seed will not germinate.

The perennials fill a space that but for them would be almost destitute of flowers, for after the bulbs, they give us our earliest spring flowers. Some of the perennials may also be propagated by cuttings or division of the old clumps of roots. Peonies are one of the old time favorites that ought to be in every garden. They like a rich, well drained soil in a sunny location, and when once established should remain undisturbed for years.

The Day Lily is another plant impatient of disturbance and when once planted should not be molested; it is not particular as to location. The Hardy Phlox is another perennial bidding for first place as a hardy border plant; it succeeds in almost any soil enriched with manure but is much benefited by a mulching of rotted manure in spring. If the flower spikes are cut off as soon as over, a second crop of bloom extending until late fall may be expected. A good effect is produced by planting masses of each color.

The Dielytra or Bleeding Heart thrives in any part of the hardy border; does well in shady places. The Columbines are old favorites that succeed well in sun and shady places; they are fine for cut flowers.

There are many other hardy border plants that are showy and useful for cut flowers, a list of which may be found in nearly all the seed catalogs. —*By courtesy of Oshkosh Hort. Soc.*

#### WHAT CROPS I GROW AND WHY I GROW THEM

J. J. IHRIG.

The subject assigned me, as I have interpreted it, is "What Crops I Grow and Why I Grow Them." This is a sort of lengthy subject in some respects. But I will eliminate as much as possible.

I grow for market, asparagus, pie-plant, beets, beans, carrots, cabbage, celery, cucumbers, cauliflower, lettuce, peppers, radishes, onions, mel-

ons, squash, tomatoes, sweet corn and numerous other vegetables and fruits.

Now, why do I grow them? Because it diversifies the gardening business and it sometimes seems necessary if you retail to customers that you have this variety, and there is some satisfaction in growing the different things anyway.

But your committee may have intended that this subject would apply to some special or main crop. I therefore will confine my talk to a few main crops I grow.

You would naturally expect that the Nordheim sweet corn is one of the crops I grow, and why I grow this is because it is without question the best practical early corn for market and therefore brings a good profit. I also grow it for seed, being the originator and breeder of this corn and having fixed in my mind the ideal as to type and quality from a practical standpoint, I believe I can better grow this for seed than anyone else because of the fact that I am breeding this corn for a definite purpose.

As plant breeders we should encourage everyone to do his best, but unless one can improve on any individual's work in a certain line rather encourage that individual to carry on his work and turn over attention to the practical inclination of our own ingenuity, striving always to produce and introduce nothing but the best.

I grow peas such as Gradus and Nott's Excelsior for quality as well as for quantity, and believe that all true gardeners should grow only such sorts as will give satisfaction. There are many, I am sorry to say, who grow the more common field type sorts because seed is cheap and they are quite early and dump them on the market in competition with our good sorts. This is a damage to the grower and to the trade. The situation is this: Along comes a cheap quality gardener with the Alaska pea and for some unknown reason the merchant will load up with about four bushels or more and the customer anxious to get the first early peas will make a purchase but after using the same will decide to wait for something better. Then along comes the high quality gardener with

the good peas asking for a deserving price but the merchant will say, "I have this sort on hand and must sell it out first, for if I buy yours I cannot sell these." Then he will drive on to the next merchant finding the same conditions and down comes the price or he must go direct to the consumer, for sell you must and all because an inferior article is put on the market. This condition causes less consumption of many of our products. It therefore behooves every gardener to grow the best of everything.

I grow tomatoes, as they are a very profitable crop, especially if rightly handled. I have a special strain of early tomatoes of my own selection and breeding, called Ihrig's Nordheim which, by the way, in comparison with the valuable articles in the Market Growers' Journal on tomatoes has made a record for me that is greater than any of those. I sowed my seed April 10 in hotbeds, and planted in the field June 10 and 11 and had the first ripe tomatoes July 16, which makes from seed 96 days and from planting in the field 36 days. There is much more to be said on this subject, but I will close by saying, let our motto be quality.—*By courtesy of Oshkosh Hort. Soc.*

#### THE CRIMSON BEAUTY (ALTON) RASPBERRY

My acquaintance with the Crimson Beauty raspberry dates back a score of years, a time sufficient for one to form a very good idea of its merits or demerits.

One who has a knowledge only of some of the red varieties can not form from them a good idea of the Crimson Beauty. It is really in a class by itself, differing from the reds in many ways. As its name indicates, the fruit, when fully ripe, is more of a crimson than red in color, will stand up fairly well in the boxes, which most reds will not. In flavor not sweet as the ordinary red, but of quite marked acidity, which makes it a desirable canning fruit. Propagated like other reds by suckers but no wild as profusely. When I began growing it I set about seeing how much it could be improved by selection and

careful propagation, and with gratifying results.

For the first ten years of its culture it was grown on sandy soil, some of it river bottom land. The past ten farther north in Iowa on a clay loam and the results have been substantially the same. We now have some plants growing under irrigation in the Yakima Valley, Washington, and they are reported doing well, so I think we may be able later to furnish those fellows out there a square meal of berries, and let them know that we around the Minnesota line can produce something beside hot air. We have marketed 2,500 quarts from a half acre for three successive seasons. One year, when conditions were favorable, have increased that to 3,000. Have picked individual specimens which measured four inches in circumference, so it does not occasion the grower to feel small about it. It has a long fruiting season, generally about six weeks. One year we marketed fruit for seven weeks and picked a few berries for a longer time. This, I think, is as near an approach to ever bearing as I have ever made with it. Since I began fruiting the Crimson Beauty I have never had a crop failure until the past season. The berry rallied from the first frost, but wouldn't from the two following.

I have referred to me for reply a letter of inquiry from Prof. Beach of Ames, concerning the Alton red raspberry which Mr. Gilbertson of Mason City is now advertising. I sold Mr. Gilbertson Crimson Beauty plants five years ago which he has propagated and fruited since then. They seem now to have blossomed out as the Alton Improved red raspberry. Why the necessity of this rechristening I do not know, for the Crimson Beauty is surely a berry which can stand by its own name and on its own merits. We are all familiar with what has been said concerning the merits of the strawberry.

That is largely our opinion here at Mapledale on the raspberry question. We have discarded other varieties and grow that exclusively. There may be a better one but we have not found it yet.—Paper read at N. Iowa Hort. Soc. by W. E. Dickinson.

### COMMERCIAL BEAN GROWING

Although beans will grow well on almost any land that will produce the principal cereal crops, they are especially useful in utilizing and improving thin land. They prefer a heavy clay loam that is well drained. The most desirable soils for beans are clay loams or soils overlying limestone. Gravelly soil may be used if the gravel is not too coarse, but muck soils and soils very rich in humus are likely to produce too much vine and too little seed. Low, wet, or poorly drained soils can not be expected to give good results. A twenty-five bushel crop of beans contains about 56.2 pounds of nitrogen, 13.5 pounds of phosphoric acid and 22 pounds of potash, but as the nitrogen is largely obtained from the air the crop is not an exhausting one to the land.

It is impossible to tell which of the many varieties of beans will prove best for a given locality until a careful test has been made. The Choice Navy variety matured about September 17, at the Virginia station, and produced the highest average yield, 22.5 bushels. It is sometimes thought that the Kidney beans thrive on heavier and stronger soils than those best adapted to the smaller white beans. Tests made in New York failed to verify this view, but indicated that there was a great difference of productivity of the different varieties of beans on any given soil. No regularity of results was observed which justified the restriction of plantings on any given soil to any type of bean.

Beans produce best on an inverted clover sod, and in New York are usually given this position in a clover, bean, wheat rotation. Where corn and potatoes are grown they are sometimes given a part of a clover sod and followed by beans, making the rotation one of four years. Where the bean crop is to be followed by wheat the pea and medium varieties are preferred, because their earlier maturity permits their removal from the land early enough for thorough preparation for wheat. The larger varieties that hold the land longer may be followed by corn or potatoes.

In Michigan, a similar three-year rotation is followed, but it is suggested that some alsike and timothy be mixed with the clover that the hay crop may be followed by pasture, thus giving a different four-year rotation especially suited to Michigan conditions.

As the bean crop is not planted until late in the spring, the preparation of the soil is often delayed, but early plowing is essential to the best results. After plowing, the land should receive frequent cultivation for five or six weeks to put it into the best possible tilth, kill weeds, and conserve moisture, especially as the crop should not be deeply cultivated later.

If beans are grown on light, sandy soils or others lacking in fertility, it will be well to top-dress with fine or well-rotted manure, after plowing, at the rate of six to eight loads per acre, or even more than this if a manure spreader is not used. This may be supplemented by commercial fertilizers, supplying from fifteen to twenty pounds of muriate of potash and twenty to thirty pounds phosphoric acid per acre, mixed with the manure as it is scattered. Tests of fertilizers made by New York farmers gave exceedingly variable results and indicated that there was danger that the stand might be injured by fertilizers. This is especially true of potash, and in dry seasons sufficient moisture should be present to dissolve the plant food if benefit rather than injury is to result.

As beans are legumes, the best results can be obtained from them only when nodule-producing organisms are present in the soil or are introduced by the application of soil from fields that have already grown successful bean crops. Inoculation with pure cultures has given variable results. In a Virginia experiment the results failed to indicate a marked benefit from such inoculation.

Early planting of beans is likely to result in the rotting of the seed as they are placed in cold or wet soil. Even if germination should be successful and the stand good, it is likely to be uneven, and the stronger plants will ripen earlier and render success-

## SPRAY CALENDAR

WHAT?	WHY?	HOW?	WHEN?			REMARKS.
			1ST SPRAYING.	2D SPRAYING.	3D SPRAYING.	
Apple	Scab and bitter rot	Bordeaux Mixture or Lime-Sulphur	Just before blossoms open (1 to 30 L. S.)	Just after blossoms drop (1 to 35 or 40 L. S.)	10 days after 2d spraying. (1 to 35 or 40 L. S.)	
	Codling moth	Arsenate of Lead combined with Bordeaux	Just after blossoms drop	10 days later	Last week of July or 1st week of August for 2d brood	1st and 2d spraying same as 2d and 3d for scab; merely add arsenate of lead to Bordeaux
	Oyster shell scale	Lime-Sulphur	March or early April but before growth starts			Do not use Lime-sulphur on growing plants.
	Oyster shell scale	Kerosene emulsion	When young are active			
Cherry and Plum	Mildew and shot-hole fungus	Bordeaux Mixture 3-4-50	When leaves are about $\frac{1}{3}$ grown	10 to 12 days later	10 to 12 days later	
Currant and Gooseberry	Mildew, blight and currant worm	Bordeaux and Arsenate of Lead	When leaves are fully developed	2 to 3 weeks later		
Grapes	Mildew and anthracnose	Bordeaux	Before leaf buds open	2 to 3 weeks later	3rd, 4th and 5th applications at intervals of 2 weeks if required.	
Strawberry	Leaf-spot or blight and leaf-eating insects	Bordeaux and Arsenate of Lead	When first leaves appear	After blossoms fall		
Raspberry and Blackberry	Anthracnose and fungous diseases	Bordeaux	As above	2 weeks later		Spray new growth after fruit harvest

ful harvesting more difficult. In New York the Kidney and Black Turtle Soup varieties should be planted during the last two weeks of May, the Pea and Medium varieties from June 5 to 20, and the Marrows and Yellow Eyes intermediate to these two groups. In Michigan, the time of planting ranges from June 1 to 25. In general, the Kidney and Turtle Soup and other larger varieties should be planted earlier than the Pea varieties.

Only the best hand-picked beans should be used for planting, as a strong and even germination is essential to the success of the crop. The vitality of the seed may well be tested by the use of the ordinary germination test. It is better to plant about four inches apart in drills than in hills or checks. The smaller varieties may be successfully planted in ordinary grain drills of which part of the spouts have been removed or stopped, but in planting the larger varieties a special bean drill should be used, unless one of the grain drills with proper attachment for handling these larger seed is available. In any case shallow planting will give the best results and evenness of ger-

mination will be more likely to result if the drill wheel presses the soil closely about the seed. The rate of seeding varies from one-half or three-fourths bushel for the smaller varieties to one or one and a half bushels per acre for the larger varieties, such as the Red Kidney beans.

Much of the work of cultivation has already been accomplished if the seed bed has been thoroughly prepared. Under proper soil conditions the seed comes up very quickly and cultivation may begin early, but the young plants are tender and break so easily that they must be carefully worked. One and two row wheel cultivators are largely used as well as the implements of other designs. The bean requires the culture usually given to other inter-tilled crops. A crust should not be allowed to form, but later cultivation should not be deep, especially during drought, because the rootlets of the plant grow near the surface. The plants should not be worked while wet with dew or rain, because of the danger of spreading the anthracnose disease.—*Compiled from Michigan Bulletin 359, Cornell Bulletin 210 and Vir-*

*ginia Bulletin 168 by the Market Growers Journal.*

## WISCONSIN BETTER THAN GEORGIA

Soil and climate may be important factors in fruit raising but of more importance is the market for the finished product. J. H. Hale, the peach king, has the following to say about Georgia peaches:

"The truth is peach growing in the south on a commercial scale has been largely overdone, and only the rail roads, refrigerator car lines, crate makers and laborers have made any money. While many discouraged orchardists are annually going out of business, railroad and land boomers catch a new crop of suckers, and planting that can only mean a loss in the end goes merrily on. Georgia is now the greatest peach growing state in the Union; has millions upon millions of well cared for trees, and annually ships thousands of car loads of superb peaches to northern markets; yet taken as a whole the farmers, who produce these peaches, have not made one cent of profit the past five years. Individual growers have some years made money, and at times big money, and these marked suc-

cesses have been used to tempt others into the business, but I am clearly of the opinion that if five years ago every peach tree in Georgia had been cut down and the money and energy that it cost to carry on the peach business had been devoted to cotton growing on best modern lines, the planters would have been more prosperous and happy. It's high time for your paper and others interested in the prosperity of the southern planter, to print the truth about this inflated non-paying peachbubble, that has money in it for all but the man who produces the peaches."

### PARTLY TRUE

Croley of Milwaukee, Grasselli Croley, contributes the following and wants to know if the farmer really told the truth.

We will ask Bussey of Omro to answer, he is the only one of the family that we know of that has an asylum—or a silo.

"Uncle," said the traveler who had stopped at the farm house to water his horse, "my wife out there in the buggy wants to know what that curious looking structure is."

"That's a silo," answered the farmer, "I keep ensilage in it."

"He says," reported the traveler to his wife a few moments later, "it's an asylum and he keeps a fellow named N. C. Lage in it. I think he's lying, but I hope you're satisfied."—Chicago Tribune.

### McLEAN COMES BACK

The March number of our horticulture paper was the most interesting reading—to me,—of any received up to date. Why? Well, just because two gentlemen of recognized ability have seen fit to dispute a small article which I had contributed to the preceding number, namely, debating at the annual convention.

The word "debate" has a wide range of meaning. We may use it while simply meaning an interchange of opinions, and again we use it to interpret dispute. The question box, or argument, has two distinct meanings, according to my understanding. I am an advocate of the question box, but I believe this paper, WISCONSIN

HORTICULTURE, should fill the bill as regards all other contention. The strongest speech may be controversial, but the difference of opinion is seldom lessened by a ten minute Harangue, to say nothing of the many ten minutes so spent, which tend to make a meeting pall.

If anything I have alluded to will be conducive of helping any future meeting to move more smoothly, I shall feel grateful for the privilege of this space. The articles written by Mr. Toole and Mr. Pfothenhauer were good, and their points were very well taken. I simply wrote this answer because I like debate, but I believe there is a proper place for everything and this time it happens to be in the WISCONSIN HORTICULTURE. I hope that every reader of this glorious paper will write an article of some kind and send it in. We are all interested in that which interests you, and we are all very anxious to learn. Let us combine our little experiences and make this the best horticultural paper on earth.

WM. G. McLEAN.

### THE ALTON RED RASPBERRY

This is a new one. Advertised very extensively. Said to be of the "ever-bearing" type. Go very slowly. This advice is entirely unnecessary in the case of experienced fruit growers, but we are speaking now to the amateur. It is possible that the Alton is all the introducer claims for it and it is also quite possible that it is no better is as good as Cuthbert, Loudon or other kinds which may be bought

for one-twentieth of the price asked for Alton. Mr. C. F. Gardner of Osage, Iowa, writes as follows regarding the Alton:

"In regard to the Alton red raspberry, I will say that it is a berry that has been grown here in this neighborhood for quite a number of years. It was brought here and planted by Mr. W. E. Dickenson, who some years ago sold plants to Gilbertson. Mr. Dickenson grew it under the name of Crimson Beauty. He has just informed me that Mr. Gilbertson re-named it without his consent. We have had it two years on our grounds. It is large in size, fairly good bearer and shows quite an inclination to late bearing when the rain comes just at the proper time after the main crop is gone. This season our plants had no late berries."

### FIRST AID TO THE BEGINNER

A STORY IN THREE PARTS.

Part I. Once upon a time there was a fat man who had big feet. His wife just loved flowers. One day she planted some rose bushes; planted them very carefully, sifting the soil lightly around the roots for fear of hurting them, a nice soft bed. Didn't cut back the tops because it would be cruel to do so.

Part II. The fat husband with the big feet blundered through the rose garden and stepped on one bush, tramped the soil to beat the band and broke the top.

Part III. This was the only rose that lived.



H. Irish fruit farm, 1 mile North of Washburn, Bayfield Co.



## SPRAY FORMULAS IN TERMS OF KITCHEN UTENSILS

W. C. O'KANE, NEW HAMPSHIRE.

(In Garden Magazine, June 1910. Copyrighted by Doubleday, Page & Co.)

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**A Guide for the Home Gardener who Wants to use Standard Remedies, but only needs to make a gallon or so at a time**

Did you ever watch a patch of promising muskmelons in your home garden shrivel away to a brown desolation in three days' work of the downy mildew? They have done it in mine, more than once. Through May, June and July the vines thrive, and the young melons grew stouter and fuller of promise. But with each August the little patch came to nothing, or at best matured a scanty crop of doubtful quality.

It was easy to tell when the mildew started. It would have been easy to check it. Bordeaux mixture promptly applied would have turned the trick. Furthermore, there was a small sprayer available, and the ingredients for making up the mixture were at hand.

But there was the difficulty of measuring out and mixing up *the small amounts of material needed*. A gallon of Bordeaux would have been ample for my whole garden, and my neighbor's, similarly troubled. But how go about it to make up such a foolishly small quantity?

Now, expert advice on spraying is easily to be had by any of us. Your state experiment station publishes complete and reliable bulletins that are yours for the asking. The United States Department of Agriculture, Bureau of Entomology, issues many valuable publications.

But state stations and the United States Department are maintained for the benefit of farmers. Their formulas are based on wholesale operations. The standard of measurement is usually the barrel—fifty gallons. That's a small amount for the man with a thousand trees. But it's overwhelming for the man with half a dozen melon vines: like hauling out a fire-hose to water a potted geranium.

Just use, you say, the proper fractional part of the amounts called for in the formula. Well, how would

you go about it to measure out one-fiftieth of four pounds of copper sulphate? Not having a set of chemist's balances handy, would you guess it for a teaspoonful or a cupful? The regular, standard formulas are here given in the quantities that you and I are apt to need in our home garden. The amounts are expressed throughout in terms of every household—the teaspoon, the tablespoon and the mason jar. You will need nothing to measure with or to mix with.

If possible, in measuring and mixing your spray materials use old utensils and keep them apart for this use. Put them in a safe place. You may use good silver and glassware, and afterwards wash it clean, but wash it very thoroughly, in hot water. Arsenate of lead, especially, sticks tight. It is this fact that makes it particularly valuable as an insecticide: rain does not wash it off readily. Bear this fact in mind when you measure out this arsenate.

### BORDEAUX MIXTURE.

This is undoubtedly the best known and most widely used combination for the control of fungous diseases. Among the fungicides it occupies a position like that formerly held by Paris green among the insecticides, before the introduction of lead arsenate.

In your garden you'll need it for anthracnose of the bean and cucumber, for leaf spot of the beet and currant, for early and late blight of the potato, and a dozen other ills. Don't forget that any fungicide is a preventive rather than a cure. It must be applied early, before the disease has made a good start.

**Standard Formula.**—The regular formula now in general use calls for four pounds of copper sulphate, four to six pounds of quicklime, and water to make fifty gallons.

**To Make One Gallon.**—Take one heaping tablespoonful of copper sulphate; one and a half rounding tablespoonfuls of quicklime.

This is the equivalent of one ounce of the copper sulphate and one and a quarter ounces of the quicklime. If your copper sulphate is in large crystals, break them up with a hammer until there are no pieces larger than

one-fourth to one-half inch. The lime must be fresh, not air-slaked. It should be pounded up fine with a hammer, unless you buy it already ground up.

Dissolve the copper sulphate in one quart of warm water. Place the lime in a separate vessel, and slake it slowly with a little water. After it stops bubbling add enough water to make one quart in this vessel.

Now pour your quart of copper sulphate solution and your quart of lime solution together into a bucket—but do it this way: pour a little from each into the bucket and then stir, then a little more from each and again stir, and so on. When you've done this, you'll have two quarts of bluish-white mixture in the bucket.

Add to this two quarts of water, making four quarts in all of your mixture. This is now ready to spray. It should be shaken or stirred frequently while being sprayed; and it should be made up fresh each time you spray.

### AMMONIACAL COPPER CARBONATE.

It may be used on ripening fruit, instead of Bordeaux, without leaving visible sign, whereas Bordeaux will persist in more or less conspicuous spots.

**Standard Formula.**—In making up a full barrel of this fungicide, take six ounces of copper carbonate, three pints of ammonia, and water to make fifty gallons.

**To Make Two Gallons.**—Take two barely level teaspoonfuls of copper carbonate; and two fluid ounces of ammonia.

This amount of copper carbonate is the equivalent of one-fourth ounce. It may be secured at any drug store, and should be about as coarse as granulated sugar. You can measure out two fluid ounces of ammonia by taking one-fourth of a half-pint bottle. Or you will probably find somewhere around the house a two-ounce or a four-ounce bottle. The illustration shows the comparative size of a two-ounce bottle. If you are in doubt determine the matter by filling a pint mason jar with the bottle you are to use. There are sixteen fluid ounces to the pint.

Place your copper carbonate in an

empty quart jar, and pour your ammonia over it. Use just enough ammonia to dissolve it. It may take a little more or less to do this, because ammonia varies in strength. Fill up the jar with water and allow any sediment to settle. Pour the clear, blue liquid into your spray bucket, and add seven quarts of water, making eight quarts of the spray mixture in all.

Like Bordeaux, this fungicide deteriorates on standing, and should be made up fresh each time you want to spray.

#### LIME-SULPHUR.

Properly, lime-sulphur mixture may be considered both as a fungicide and as an insecticide, for its use as a winter wash for scale on fruit trees is usually followed by reduced injury from fungous diseases.

However, its principal use is for the control of San Jose scale. The strength ordinarily used is suitable for winter applications only; never when the trees or shrubs are in leaf.

The process of making this is both tedious and disagreeable and it must be done out of doors. I do not advise home preparation on a small scale.

There are reliable brands of concentrated lime-sulphur on the market which you can purchase in fairly small quantities. If you are in doubt as to what brands are trustworthy, write your state experiment station. Some stations test out these preparations each year. If yours has not done so, it can tell you of some station that has.

*Standard Formula.*—Experimenters have pretty well settled on the following proportions: fifteen pounds of flowers of sulphur, fifteen to twenty pounds of quicklime, water to make fifty gallons.

*To Make Two Gallons.*—Take a pint mason jar and fill it three-fourths full of flowers of sulphur. Similarly, measure out two-fifths of a pint of quicklime, pounded fine.

This will give you three-fifths of a pound of sulphur and just a trifle over three-fifths of a pound of quicklime. Be sure that the lime has not been air-slaked.

Now, place your lime in an iron vessel that will hold three or four quarts. Slake it slowly with hot

water. While it is bubbling, place your sulphur in a separate vessel, and add enough water to it to make a thick paste. Pour this paste into your bubbling lime, stirring thoroughly. Add enough water to make two quarts. Now boil the mixture hard for an hour or more, adding hot water from time to time as the mixture boils away. When it is done the color will change from a yellow to a clear brown, and there will probably be particles of lime floating around in it. Remove from the fire, and add enough water to make two gallons, all told.

This should be sprayed while still hot. The composition changes on cooling, and much of the strength is lost.

#### ARSENATE OF LEAD.

About the only difficulty with old-fashioned Paris green is the fact that it washes off readily. In the case of some vegetables, such as cabbages, this may be no disadvantage. We prefer to have the poison come off before the heads are marketed. As a rule, however, it is a distinct advantage to have a poison that will adhere through showers. Arsenate of lead will do this.

*Standard Formula.*—Arsenate of lead is used at strengths varying all the way from three pounds to the hundred gallons up to twenty pounds to the hundred gallons. It depends on the power of resistance of the species of insect for which the spray is applied. There is no danger of burning the foliage.

*In Small Quantities.*—This chemical comes in the form of a thick, sticky paste. For ordinary use take one tablespoonful, just slightly rounded, to one gallon of water or Bordeaux mixture.

This is the equivalent of one ounce of the paste. You may use double this amount if desired in the case of resistant insects, such as the potato beetle.

#### KEROSENE EMULSION.

For most sucking insects, especially the soft-bodied ones, such as plant lice or aphids, a satisfactory spray is to be found in kerosene emulsion. It is not a poison, and is of no avail against such insects as the potato beetle; nor is a poison

spray like arsenate of lead of any use against the sucking insects for which kerosene emulsion is adapted. The distinction should be clearly understood. Kerosene emulsion is a contact remedy. Paris green or lead arsenate are stomach poisons.

*Standard Formula.*—In making up this spray mixture on a large scale the proportions call for one-half pound of hard soap, one gallon of water, and two gallons of kerosene. The soap is dissolved in the hot water, the kerosene is added, and the spray-pump is used to churn the mixture violently.

*In Making Small Amounts.*—Cut from a cake of common hard soap a cube about one inch square. Take one-half pint of soft water; one pint of common kerosene, or coal-oil.

Pour the half pint of water into any convenient vessel holding a quart or more in which you can boil it. Shave the soap up fine and drop it into the water. Place the vessel on the fire, and bring the water to a boil, stirring to see that the soap is all dissolved.

Remove the vessel from the fire and, while the soapy water is still hot, add the pint of kerosene. At once churn the mixture violently. For this purpose you may use a common egg-beater. It won't hurt the egg-beater in the least; you can easily wash it clean afterward with soap and hot water. Keep on churning the mixture for several minutes until you have a creamy mass of even consistency throughout.

This is your stock solution. For ordinary summer use you will take one part of this and add to it fifteen or twenty parts of water.

#### COMBINED MIXTURES.

Combining two different poisons so as to make a double-headed application at one time is often a labor-saving device for the amateur. Thus, Bordeaux mixture can be used in place of water in the preparation of Paris green, and in this way we can get one spray that will kill fungous diseases and chewing insects at the same time. Similarly, lime-sulphur can be used in combination with arsenate of lead (but a mixture of Paris green and lime sulphur is injurious to the foliage).

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Madison, Wis.

We lack dignity.

We admit that we sometimes depart from accepted standards of editorial dignity and sobriety, but if people are thereby induced to "sit up and take notice" we shall be happy.

The number of new subscribers enrolled since Jan. 1st is very gratifying, but we are a trifle discouraged over the large delinquent list. Subscribers must know that we are compelled to stop the paper following notice of expiration. Our boast in

the past has been in the slight loss of members, now subscribers, please help us keep up the record.

Probably nine-tenths of our readers own or control land, either farms or back lots, and will plant trees, flowers or vegetables. To the remaining tenth we extend sympathy. Still we hope that this "submerged tenth" will buy, beg or borrow space enough on which to plant something, if nothing more than a hill of beans, and know the supreme joy of being a producer.

We have also been criticised for advising the entire removal of the "bulge" in cutting large limbs. We are told that this is all wrong; the "bulge" should be left in order to facilitate healing, smaller wound, etc. To all of which we must answer,—mere quibbling, horticultural hair-splitting.

All of the words and pictures in the March issue about cutting close aimed to teach but one lesson, viz., leave no stub. Stubs never heal. This is the great lesson to be learned by beginners.

### CREDIT LIST

Names of members who secured new members during April.

B. Hahn, 5; E. S. Wigdale, 1; Geo. B. Smith, 1; Fred Beck, 1; F. Ward, 2; E. C. Garwood, 1; J. F. Bertschinger, 2; F. Blackington, 2; Geo. Girling, 2; E. W. Sullivan, 1; Paul Browne, 1; J. E. Matthewson, 3; A. Gropper, 3; Ralph E. Wilson, 2; E. S. Hildemann, 4; P. T. Gillett, 1; K. Borgeson, 2.

The Algoma Society held its regular meeting one week later this month. We listened to the report from delegate J. C. Davis which was excellent. The following officers were installed: President, John Davis; vice-president, Thomas Cook; secretary, Joseph B. Noyes; treasurer, Mary Du Bois. All named after noted people of ancient history. Oh, we are a mighty interesting bunch with our Cooks, Shepherds, Smiths and a Carpenter. Yours Fraternally,

J. B. NOYES.

## SOME NEWS AND AN INVITATION

After eight months calm and careful consideration the postoffice department, through the Hon. Acting Third Assistant Postmaster General, has decided that this paper is not entitled to second-class rates.

We respectfully convey our compliments to the above named party and will he please go to the devil, we will pay third class rates. We propose to "keep on keeping on" just the same.

From a reliable source we learn that Mr. W. A. Travers, acting third assistant postmaster general, has been indicted for selling certain rare stamps. We hope he gets all that is coming to him,—and then some.

### BACK NUMBERS

The finances of this fireside journal does not permit of printing many extra copies and back numbers are not plentiful. Back numbers can no longer be furnished free but a limited number of copies are available, except of the January issue, at 10 cents per copy.

Save your papers, some of the early numbers will be in demand before the year is out.

### ASK QUESTIONS

The secretary is not looking for trouble but feels impelled to remark that the question box is always open.

Previous to the beginning of WISCONSIN HORTICULTURE the Information Bureau was one of our most helpful features. Members need not feel that the paper has supplanted this department, all questions will be answered as in the past by mail and if of general interest, in the paper also. Old members know, new need to be told, that this service is as free as the air you breathe.

Our Gays Mills Trial Orchard is the best apple orchard in the state for its age, three years. Many trees are from eleven to twelve feet, and eight to nine inches in circumference.

The Gays Mills Fruit Farm Company is planting twenty-five acres of apples, two acres of cherries, one acre of plums, one acre of grapes and two acres of strawberries. Forty acres more will be planted in the spring of 1912.

### Questions and Answers

Q.—What is the best season for pruning fruit trees?

A.—March or April.

Q.—Can we prune orchard any time after March 1?

A.—Yes; until the growth begins, then wait until June.

Q.—Will seeding an orchard for two years in rotation with other crops be beneficial or injurious to trees?

A.—Clean culture is best. Keep sod out of orchard at all times.

Q.—Will mulching and digging about trees in an orchard growing grass of any kind benefit trees like open cultivation?

A.—No.

Q.—Is the Pewaukee a good commercial variety and how does it compare with the Wealthy?

A.—Not reliably hardy or long-lived anywhere in Wisconsin. Wealthy better in every way for commercial apple.

Q.—What winter varieties of apple would you recommend for commercial orchard in this locality. (Juneau County)?

What three summer or fall varieties?

A.—No winter apples.

Duchess, Patten Greening and Wealthy for fall.

Q.—Would liberal pruning be conducive to more fruit with Northwestern Greening?

A.—No; if pruned during dormant season. Summer pruning may help.

Q.—Should an orchard be ridged one way? If either, how? We have done so to avoid washing. Did we do right?

A.—Level culture always. Spring both or disc. Seed water courses.

Q.—My Japanese plums bloomed and set fruit, but when the fruit was about the size of a pea or a bean

nearly all of it dropped off. The few that remained on the tree got to be very nice fruit. What is the cause and the remedy?

A.—Due, no doubt, to heavy frosts and snow in April. While many blossoms escaped and fruit set the tree lacked sufficient vigor to mature but a small amount of fruit.

Q.—What varieties of native American plums can and preserve without becoming hard and leathery?

A.—Very much depends on the process of canning. We have eaten Quaker Forest Garden and Wyant that were neither hard or leathery, in fact surpassed canned peaches in texture and flavor. These were prepared by a lady who had wide experience in canning. Unfortunately, we do not know her present address.

Q.—Is it necessary to set different varieties of apples near each other to get perfect pollination, or is each of our hardy fall apples perfect in itself?

A.—Apples are classed as to their ability to self-pollinate into three groups. Self-fertile in which the variety is capable of self-fertilization to the extent that abundant crops are produced. Self-sterile varieties, those which are incapable of self-fertilization to the extent of producing remunerative crops. Semi-self-sterile varieties; this class may vary in its self-fertility from practically self-sterile to the other extreme or self-fertile. It is evident that varieties which are self-sterile or so nearly self-sterile as to be incapable of producing remunerative crops unless pollinated by other varieties will need to have other varieties planted with them to accomplish this function. Crops of fruit may be produced by self-fertile varieties without other sorts. Nevertheless, experiments and observations have proved that better results as to size of fruit and amount of production have been obtained where self-fertile varieties have been accompanied by other varieties to pollinate them. Owing to this fact, it is always wise to grow more than one variety of the same kind of fruit in a planting. PROF. J. G. MOORE.

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Q.—Please give me a list of native plums that are self fertilizing?

A.—The question of self-sterility of American plums has been worked out experimentally in a number of Experiment Stations, and with results which have been very much against the planting of any of our native plums singly and depending upon them for self-fertilization. I would not care to advise the planting of any American plums alone and expect that remunerative crops would be obtained.

There are some varieties which are to an extent self-fertile, but the following table taken from work done at the Vermont station would indicate that the possibilities of a fruit crop when these varieties are planted alone would be very small. The following results were obtained from using the various types of wild or native plums, giving each of the separate classes recognized as being distinct from each other by leading horticulturists.

Of the 18 varieties of the common wild or American plums, out of 1700 blossoms only one set fruit when left to self-pollinate. Of 188 blossoms of the Nigra plum to which the variety Aitkin belongs, none set fruit. Of the Miner group, to which the variety Surprise belongs, out of 462 blossoms on five varieties only one set fruit. On the Wild Goose plum, which is grown to some extent, of 11 varieties and 1300 blossoms, none set fruit.

It will be seen from this table that the statements made above are founded upon results which have been obtained after careful experimentation as to the self-sterility of the American plum.

PROF. J. G. MOORE.

Q.—May I ask a question to be answered in WISCONSIN HORTICULTURE? I have an orchard of about 18 trees of which five are Duchess. on which the bark rots away in places near the ground. Two years ago I manured the trees quite heavy; that is, I put the manure right around the trees. Now, did the manure do it, or was it something else, and is there anything I can do?

A.—It is a difficult thing to attribute such rotting of trees at the base

to any one cause without a critical examination in the orchard. Canker-ing at the base of trees such as described, may result from any one of several causes. While manuring heavily around the tree is not generally advised it is not probable that the manure was the direct cause of the injury.

What we are more particularly interested in is the primary cause of the injury. "Rot" organisms, fungi, such as Sphaeropsis causing black rot, the bacteria of fire blight, and others, may have followed after the primary injury and accentuated it. The primary cause may have been of minor importance in itself: a mechanical injury such as bruising when the tree was set out, gnawing by mice or rabbits, or "barking" in cultivating around the tree,—in any one of which cases the subsequent invasion of the fungus organism through the wound may have caused the destructive "rotting" of the plant tissues. The bacterial blight may attack water sprouts which arise from the base of the tree or from roots and the blight pass thence to the parent stem or root. Another possible cause is that of sun scald which seems to be more prevalent with the smooth barked varieties of trees exposed to strong sun light.

However, I am inclined to believe that the trouble is what is known as Crown-rot or Collar-rot, a fruit-tree injury which usually begins at the collar near the ground and frequently at the uppermost roots, and extends irregularly both up and down, browning and killing bark and wood. This trouble is primarily due to adverse climatic and soil conditions, resulting in winter-injury. A moist, warm autumn following a drought induces late growth. A severe winter will injure the trees mechanically by freezing the relatively large quantities of water thus present in the cambium region, ending in the death of the parts or a girdling and consequent death of the whole trees. Rotting of the parts follows, due to the introduction of fungus organisms as described above.

The relative maturity of the tissues in addition to the constitutional

hardiness of the tree probably determines its resistance to low temperatures. General preventive measures

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Every tree and shrub is packed entirely under cover, free from exposure to sun and wind.

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FOR THE GARDEN

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Sheboygan,

Wisconsin



**COFFEE**  
**ONE CENT PER POUND**

**Salzer's Famous French Coffee**

A wholesome drink! The healthiest ever; you can grow it in your own garden on a small patch 10 feet by 10, producing 50 lbs. or more. Ripens in Wisconsin in 90 days. Used in great quantities in France, Germany and all over Europe.

Send 15 cents in stamps and we will mail you a package giving full culture directions, as also our Mammoth seed catalog free; or send \$1 cents and get, in addition to above, 10,000 kernels unsurpassable vegetable and flower seeds—enough for bushels of luscious, different vegetables and brilliant flowers.

**JOHN A. SALZER SEED COMPANY**  
288 South 8th St. La Crosse, Wis.

are: early, thorough cultivation inducing early growth and the consequent early ripening of the wood, as well as the conservation of moisture, followed by a cover crop in mid-summer. Avoid late cultivation and excessive fertilization. In case injury is observed prompt treatment should be given as follows: Cut away and remove the dead bark, paint over the wounds to prevent further rotting and it may be possible to save the trees.

The leaves of root-injured trees, though developing normally in the spring, will suddenly turn yellow in the summer, often followed later by the death of the tree. There is little hope of saving such trees and it is more advisable to dig them up and replace them with new stock.

HUBERT D. WHITE.

Dept. Plant Pathology, Univ. of Wis.

Q.—A party who claims to be an experienced tree planter, "though I doubt it," says evergreens and deciduous trees taken from native place in low land will not succeed on high land. What is your opinion about this? I wish to move elms and cedars from such a place if advisable.

Is there anything in marking the south side of a tree and replanting in same direction?

W. P. D.

The tree planter is in part right in his statements. Trees moved from low to high land will certainly suffer a check. The setback may last two or three years but with good care the trees will eventually make good specimens. It is not all due to the soil, because trees from the wild never do as well as nursery grown stock. The root system in the former is inefficient and the change of environment is much more severe. The nursery grown trees have usually been transplanted and always cultivated which produces a compact root system.

It must not be understood that trees can never be moved successfully from the wild but if you are in a hurry for results would advise you to secure nursery grown stock.

Marking the south side of a tree and planting in same direction makes very little difference. Some-

times the trunks of trees taken from a shaded locality may suffer a little from reversing but this can be overcome by shading the trunk with strips of wood, paper or any other material.

I am well pleased with your little paper, WISCONSIN HORTICULTURE. I am taking other fruit papers, but this will be more useful for us in Wisconsin. I think it ought to be one dollar a year including membership in the Wisconsin State Horticultural Society, and ought to go together.

Yours truly,

WM. MCCARTHY.

"I just read the article on a Family Affair in the WISCONSIN HORTICULTURE. I would say I stand for one to make our paper one of the best in America and it can be done if we all do our part. I am even willing to pay a dollar a year for the paper alone to make it one of the best, besides helping other ways. I am sure that this paper now is almost equal to some of the \$1.00 per year publications. Our dream can become real if we all will put our shoulder to the wheel and push just a little. Let Wisconsin be recognized as one of the *leading* states in horticulture in the near future.

"Very truly yours,

"H. B. BLACKMAN."

"I note with considerable interest your remarks under the title of 'A Family Affair' in the April number of WISCONSIN HORTICULTURE, as the subject has been frequently in my mind on account of my connection, simply as a private member, in both the Wisconsin and Minnesota societies. Comparing the fruit and berry development and opportunities of the two states there seems to be no reason why Wisconsin should not have quite as large and flourishing a Horticultural Society as Minnesota, and when WISCONSIN HORTICULTURE was established I felt that a long step had been taken in the right direction. One of the principal objects of the society should be the constant dissem-

Mention this paper when writing to advertisers.

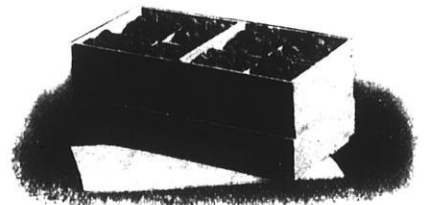
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Send names of people who ought to be members and we will send each a copy of WISCONSIN HORTICULTURE.

ination of facts, experiences and suggestions relative to fruit culture, and in no other manner can this be accomplished better than through the columns of a good sized, well edited and well printed monthly journal. Then, too, the society member wants to get something tangible for his money; something more than the honor of membership, as the great majority cannot for one reason or another attend the annual meetings.

"In my opinion the annual dues of the society should be increased to one dollar for two reasons. First, the additional income would permit larger activity, and a larger and better magazine. Second, one dollar is a small enough sum for membership in a society of the character and standing of ours, and I believe I am safe in asserting that there is scarcely a member now on the roll who would drop out on account of the increased amount of the dues. A better magazine would attract and bring into the society more members.

"I suppose we all have a little strain of selfishness, even in promoting the general welfare of horticulture in Wisconsin, and want to get something out of it. This something is knowledge of what to do and what not to do, as learned by the experience of our fellow members, and if the society can send out monthly a magazine filled with facts and information of interest and benefit to fruit growers it will gain constantly in membership and influence.

"Yours very truly,

"GEORGE M. HUSS."

In your February issue I read the article by August Cleereman on buying and planting fruit trees. Believing that by adding my experience others may profit, will say am located thirty-three miles west of Kenosha, five and a half miles north of the state line.

Have planted about a thousand fruit trees since 1898 with no commercial object in view. Just for home use, amusement, and to exploit that good fruit can be produced in Wisconsin, especially pears.

Such trees as I have planted in the spring of the year have always done well. Those planted in the

fall have proved absolute failures. Prior to 1906 I planted two small apple orchards of about sixty trees each, also a pear, plum and cherry orchard of about a hundred trees and other trees of a kind of plum not suitable here.

In 1905-06 planted three hundred dwarf pear trees, ninety standard, (have two standard pear trees in bearing near forty years) and something like a hundred other fruit trees, apple, plum, cherry and peach; more recently another hundred Golden russet apple trees one year old, all planted in the spring of the year. The pear and apple trees all grew, every one; less than fifteen have since died (mostly pear trees from blight). These trees were severely cut back in top and the roots carefully pared of breaks and bruises. In planting, the ground had been deeply plowed, the holes dug round and deep, the subsoil being kept separate, every root carefully placed and covered mostly by hand and packed. The top soil was shoveled in and tramped to within two inches of the surface, then the subsoil was put on loosely.

The trees had been heeled in upon arrival and were taken up a few at a time, the roots kept covered with a wet or damp cloth to prevent the fibrous roots from becoming dry.

When trees are planted this way in the spring, in moist ground, with the trees in good condition every tree should grow.

I would not go far south after trees. I would buy of some nurseryman of good repute, east, west or north, trees guaranteed true to name, to be delivered in good condition, then plant them at my own risk. I would plant them rapidly, as described, having the holes dug just ahead of me. I would fill in or loosen the subsoil, tramp it down, put in some top soil to the proper depth or see that it was done upon the plan of "hold the plow or drive" and thus avoid replanting.

The last hundred apple trees which I planted were yearlings, called whips. They have outstripped older trees in growth I think because of their better root system, also the advantage one has to shape the top to suit.

## FIRST CLASS NURSERY STOCK IN GREAT VARIETY

Consisting of

## FRUIT, SHADE AND ORNAMENTAL TREES

Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grape Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

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## JEWELL MINNESOTA GROWN Nursery Stock

Complete assortment of Fruit and Ornamental stock in all varieties suited to northern culture. A specialty of Hardy Shade Trees, Windbreak Stock, Evergreens (Coniferous), Deciduous Shrubs, Apples and Native Plums.

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LAKE CITY, MINN.

1500 Acres

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high, medium, or low, open or spiral, is in their favor and I believe with others that they make better trees.

I have made the mistake of planting trees too close together in my first orchard; and again, in planting too many varieties. It looks to me now like having gone hunting with an old blunderbus. *Avoid it!*

It bothers when you come to spray.

ANDREW KULL.

Lake Geneva, Wis.

### TOMATO CULTURE

A POSTAL CARD MANUAL.

May 1 should find tomato plants in cold frames 4 inches apart. June 1 plant in the field 4 to 5 feet apart on rich, moist, well drained soil, deeply plowed. Discard all inferior plants. Cultivate often as long as vines will permit, but shallow only. For early fruit use "Buckstaff" and Chalk's Early Jewel and for late Stone and Matchless. For fancy fruit Ponderosa, single stem culture on stake or trellis. Try spraying with Bordeaux for blight and other fungous diseases. Do not neglect to save choicest fruit from best plant for seed for next year.

N. A. RASMUSSEN.

### NOTES FROM HORTICULTURE DEPARTMENT, U. OF W.

Some time ago I was talking to you relative to some notes, which I had found, by Mr. W. J. Moyle. He has given his consent to have these published, so I am sending them. These notes were written during the fall of 1898.

"Apples that will undoubtedly become popular, that have fruited at the station this summer are Early Sweet Russian, Windsor Chief, Banana and Gilbert."

"William Belt is by far the best strawberry in quality in the patch this year. Clyde is very productive, but of poor quality."

"El dorado blackberry will supplant all other varieties as soon as its true value is known."

These are Mr. Moyle's prophecies.

You may be interested in the following notes: "The horticultural department will continue its orchard spraying work during the coming season in the following places: On

## LA FOLLETTE A GREAT STRAWBERRY

The best plant-maker, most healthy, vigorous, productive, and the best seller of forty varieties grown by us the past eight years. The La Follette is a seedling of President McKinley and originated in our nurseries, being selected from several thousand seedlings grown by W. J. Moyle as the best in the lot. We have tried it out under all conditions, and it has proved a winner every time, out yielding all others, being large, firm, good color and bringing the top price on the market.

Price 50c per 12, \$2.00 per 100, \$15.00 per 1000

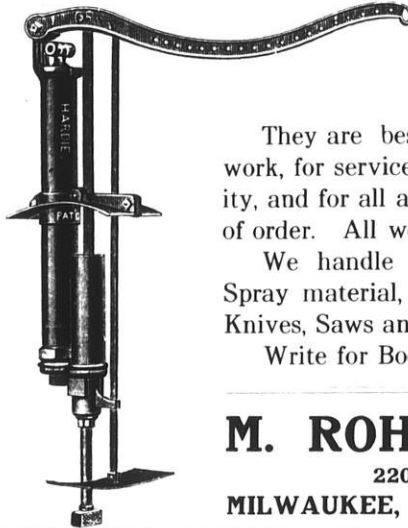
50 and 100 Rates by Mail Postage Paid

### Special Offer to Readers of the Wisconsin Horticulture

To every one placing an order for 100 La Follette strawberry plants before April the first we will give free any one of the following premiums: 12 Stevens Late Champion strawberry plants, 5 Hardy grape vines assorted colors, or 5 Dudley apple trees one year grafts.

### Wisconsin Nurseries, Union Grove, Wisconsin

W. J. MOYLE, Proprietor



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Are the renowned Sprayers with  
THE TROUBLE left out. : :

They are best on the market for all around work, for serviceability, for efficiency, for reliability, and for all around work. Nothing to get out of order. All working parts made of brass.

We handle a full line of Sherwin-Williams Spray material, Insecticides, Fungicides, Pruning Knives, Saws and other Orchard Supplies.

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## Winter Apples of Quality

Gem City, Hanko and Tuttle's Winter, three great Wisconsin winter apples. Quality excellent, keep in ordinary cellar until spring, trees hardy. Limited quantity, delivery fall 1911 and spring 1912, one year budded and one year grafted. Full line other varieties apples and plums, one year only. Have discontinued growing fruit trees with top older than one year. Have discontinued dealing in nursery stock and sell only our own grown. Our soil is a heavy upland clay on which we grow stock of a superior quality and we make a specialty of fruit trees for planting commercial orchards. Catalogue and circulars.

### Henry Lake Sons Co., Nurserymen

Black River Falls, Wisconsin



the orchard of Mr. Melcher, Oconomowoc, Waukesha county; Mr. Rowe, Oshkosh, Winnebago county; D. E. Bingham, Sturgeon Bay, Door county. The work in Waukesha and Winnebago counties will follow the same general lines as that which has been done during the past two or three years. The work in the Door peninsula will be very much more extensive. There will be chiefly experimental work along the line of lime sulfur as a summer spray in comparison with Bordeaux mixture both on apples and cherries. Both the commercial and self-boiled material will be used. The work will be in charge of J. G. Milward who will be assisted by Mr. W. C. Zillmer. The

extent to which the extension work of the horticultural department has increased during the past two years has made it necessary to secure an assistant to Mr. Milward.

"The other line of extension work in which the department is primarily concerned is along potato lines. The department has taken up the establishment of community breeding centers where two or three standard types of potatoes will be grown, enabling these sections to enter into the seed trade, and establish a reputation for their particular section and particular variety the same as has been done in Maine and New York. The fact that it is becoming practically impossible to secure seed potatoes which are true to type in Wisconsin has clearly demonstrated the fact that these methods must be changed if Wisconsin potatoes are not to be discriminated against. The work will consist chiefly in the distribution of pure seeds of standard sorts and in the growing of this seed for distribution in the potato sections. The work will be carried on at Conrath, Rusk county, and Porterfield, Marinette county. From 12 to 15 acres of seed potatoes will be grown. The varietal trials which have been carried on in the past will be located on the substation grounds at Spooner, and some additional potato work will be carried on at Almond. This work will also be under the supervision of Mr. Milward. Spraying demonstrations will also be carried on at the departmental orchards at Bayfield and Madeline Island."

JAMES G. MOORE.

*Associate Horticulturist.*

#### BORDEAUX MIXTURE

*Formula.*

- 4 lbs. copper sulfate.
- 5 lbs. fresh lime.
- 50 gallons water.

(See Bull. No. 19 for directions.)

A standard and reliable remedy for apple scab, brown rot, shot hole fungus, mildew and other fungous diseases. *Does not kill insects.*

Add 2 lbs. arsenate of lead to each 50 gallons of prepared Bordeaux and make a complete orchard spray.

## Get The Best



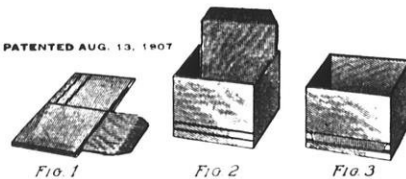
A Good Spray Pump earns big profits and lasts for years. THE ECLIPSE is a good pump. As practical fruit growers we were using common sprayers in our own orchards—found their defects and invented the Eclipse. Its

success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

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We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

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We have sold enough of this seed to sow half-a-million acres and every purchaser has been enthusiastic about it. Ex-Gov. W. D. Hoard of Wisconsin writes "I like the quality of your Alfalfa Clover very much. On 30 acres I raised over \$2500 worth of Alfalfa Hay. There is no better money crop that I know of."



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**JOHN A. SALZER SEED CO.**  
268 South 8th St., La Crosse, Wis.

**THE CHERRY ORCHARD IN MAY**

D. E. BINGHAM.

May is the month to do your first cultivation and thorough work and also two sprayings come in this month, one just before bloom and one after bloom, which is very last days of May in Door county. Very shallow plowing with orchard gang to turn under all weeds, etc., first of May then about three or four times with spring tooth is about what should be done. Sometimes very last of April we get at the plowing but usually May 1 is time enough.

**A FEW CURRANTS**

Hon. Wm. Knight of Bayfield has planted 12,500 currant bushes. This ought to furnish enough for a pie or two.

Mr. Knight plants currants four by eight feet and cultivates thoroughly.

**60 VARIETIES STRAWBERRY PLANTS**

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OSCEOLA, WIS.

**Forest Hill Nursery**  
George Rentschler, Proprietor

Trees and shrubs for street and lawn. Bulbs and hardy garden plants. A full line of fruit trees, bush fruits and strawberry plants

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Lands****ARE THE BEST IN THE STATE OF WISCONSIN**

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

**DOOR COUNTY LAND CO.,**  
**STURGEON BAY, WIS.**

Fig. 1291

**MYERS  
SPRAY PUMPS****Nozzles, Hose, Fittings, etc.**

Fig. 1317



Fig. 653



Fig. 640



Fig. 1410

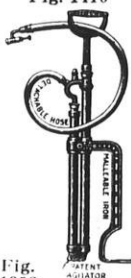


Fig. 702



Fig. 1125

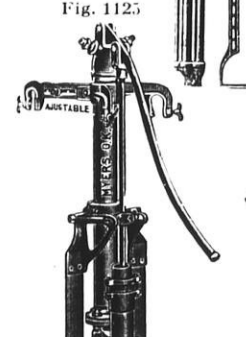


Fig. 1358



Fig. 1363

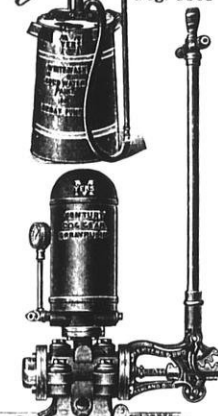


Fig. 1229

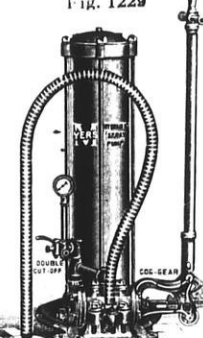


Fig. 1364

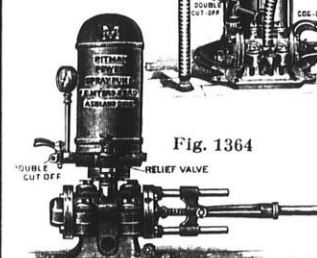
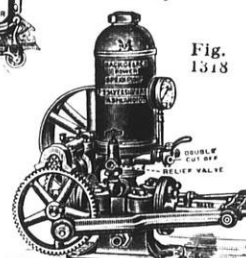


Fig. 1318



When the season arrives you want to be able to SPRAY WITHOUT ANY DELAY OR ANNOYANCE. A single day's delay may prove costly. In order to be safe at all times you must have a dependable spray pump outfit. YOU CAN ALWAYS DEPEND ON THE MYERS. The above illustrations show only a few MYERS SPRAY PUMPS made in all styles and sizes with a full line of NOZZLES AND ACCESSORIES for complete outfits with which to meet every requirement. GET READY NOW. WRITE FOR OUR SPRAY PUMP CATALOG.

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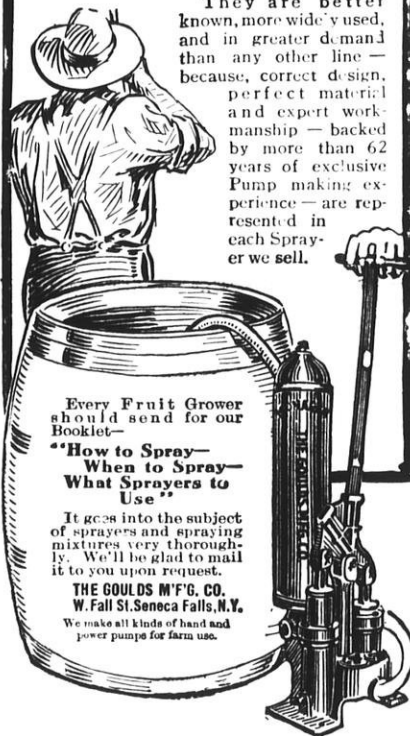


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They are better known, more widely used, and in greater demand than any other line — because, correct design, perfect material and expert workmanship — backed by more than 62 years of exclusive Pump making experience — are represented in each Sprayer we sell.



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It goes into the subject of sprayers and spraying mixtures very thoroughly. We'll be glad to mail it to you upon request.

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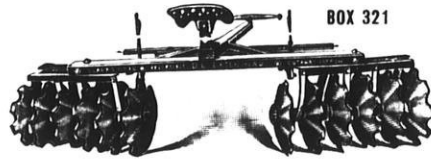
### 25 HARDY PLANTS for \$1.00 POSTPAID

Beginners' Collection of hardiest and finest old favorites and best new sorts. All strong healthy 1 yr. plants. Fill border 4 ft. by 15 ft. Give brilliant bloom from spring until fall.

**Special Offers—Postpaid**  
 10 Plants, New Hybrid Long-spurred Columbines.....\$1.00  
 10 Plants, New Dwarf Columbines, including New Golden-leaved.....\$1.00  
 10 Plants, New Pink Forget-Me-Not, "Dornraschen".....\$1.00

**Order Now.**  
 Write for free catalog.  
 A. F. BOERNER, Nurseryman, 42 North St., Cedarburg, Wisconsin.

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Two-Horse Single Action Cutaway Orchard or Farm Harrow with Extension Head, Reversible; also One Horse Size. Also Double Action Steel Jointed Pole Cutaway Harrows. (Can be Extended.) For Orchard and Farm. Send for Catalogue. If a Fruit Grower, send for our New Catalogue of Fruit Growers' Supplies.

E. G. MENDENHALL,

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### POSTAL CARD MANUALS

A handy guide to gardeners or all about roses on a postal card sounds like a joke at first but after you have read a few of these postal card "manuals" you change your mind. Here are some for May.

#### ALL ABOUT ROSES.

W. J. MOYLE.

Roses planted by most people are a failure in Wisconsin, as most varieties are tender and require lots of care to succeed with them. In setting out six bushes for my own doorway I would have two climbers, one

Crimson Rambler, one Queen of the Prairie, one Austrian Yellow, one Madam Plantier, one Baron Bonstetten, one Seven Sisters. In adding six more the following not quite as hardy would be set: Gen. Jack, Paul Neyron, Frau Karl Brühkiki, Princess Adelaide, Baltimore Belle, Mrs. John Laing. Rugosa roses are very hardy and for massing or bedding work are O. K., but worthless at a cut flower.

The article on page 6 is for amateurs exclusively. It seems to fill a long felt want. A very good sprayer may be had for one dollar. Ask our advertisers.

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# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

June, 1911

No. 10

## BIRDS AND THE FARMER

BY DR. VICTOR KUTCHIN

*of Green Lake, in Farmers' Institute Bulletin.*

Not very much has been done in the state of Wisconsin for bird protection. More than twenty-eight years ago, the gentleman who should have preceded me on the program of the afternoon (Professor King), was employed by the state of Wisconsin to prepare a paper on the economic value of birds. He worked on it for something over four years, and when it was completed, the great state of Wisconsin had a document of value to every citizen of the state published in a volume on the "Geology of Wisconsin," as though Moses, when he engraved the Ten Commandments upon the tables of stone, had left them upon the mountain and come down and intimated to the people that there was something valuable in an inaccessible place, but it would perhaps be just as well to climb up and see what was to be found. When the work on the economic value of birds was published by the state of Wisconsin in a great volume on the Geology of Wisconsin, it was certainly being published in the last place in the world where a boy or a girl or a farmer of Wisconsin would naturally look for a paper of such inestimable value.

I reiterate that not very much has been done in the way of bird protection. Dean Russell stands for better methods of farming, scientific farming, and he stands for the extirpation of the foul ulcer of bovine tuberculosis; Supt. McKerrow with his earnest and faithful body of assistants, for eighteen or nineteen years has been going from county to county, from city to city, from hamlet to hamlet, preaching the gospel of glad tidings of great joy of better methods on the farm, bringing this home to you, and the state has finally decided that there shall be a clean dairy product and a

sanitary barn and it has put men into the field to educate the people in that direction.

But where has a voice been lifted in behalf of the protection of our birds? That paper of Professor King should have been published as a separate volume and put in the library of every school in Wisconsin; the question of bird protection should have a place in the short course in agriculture at Madison and in the farmers' course, and in every Institute held in the state of Wisconsin.

You say, "Is it important, is it so important?" Let me illustrate.

During an insurrection in Paris, a temporary barricade had been thrown across the street and it was being watched by a couple of French officers, when suddenly a cat ran across it. One officer said: "Hello, there goes a correction," and replying to an interrogation in the eyes of his companion, he said, "When God made a mouse, He realized He had made a mistake, and so He made a cat to correct the mistake He had made in the creation of the mouse."

Now, waiving theology, I want to say that when God opened the doors of creation to the myriad of crawling, squirming, repulsive insects and to the pernicious weeds, with all reverence be it spoken, it seems like a mistake; but if it was, the mistake was corrected,—that clearly must have been the intention,—by the creation of the bird, and the birds stand in the same relation to the harmful

insect and the harmful weed that the cat does to the mouse.

I want to tell you a singular thing which I cannot account for—I wonder if you can? Let there be a fire in this city, entailing one hundred thousand dollars loss, and every paper in the state would give it headlines, and yet, do you know, there is not an oak growing on the hillside that has not



TREE SPARROW.

four hundred lurking, insistent and persistent insect enemies seeking after its life? Do you know that through insects which infest them, the loss to the forests of America, instead of amounting to one hundred thousand dollars, amounts to a hundred million dollars annually, and you never see anything in the daily papers about it either.

Out in northeastern Oregon, one form of insect, the Mountain Pine beetle, destroyed from ninety to ninety-five per cent, in the three years



last past, of the stately lodgepole and yellow pine on an area of one hundred thousand acres.

And do you know that the old commonwealth of Massachusetts has spent more than two million dollars in fighting one insect and it is a drawn battle today.

The boys and girls will know once during our history when we met the enemy, the message flashed over the lines, "We have met the enemy and he is ours." But all the science of America has gone after one insect, the gypsy moth, and it is a drawn

of a doctor," "but I have a young robin here and I am afraid he is going to die. Will you tell me what is the matter with it?" Of course I said I would like to. She went out and got it and gave it to me. Its eyes were closed and it tipped over on my hand, and I said, "I guess there isn't much that can be done for that patient." She said, "Willie picked it up three days ago on the lawn and day before yesterday I gave it half of an angle worm; yesterday I gave it a great big angle worm and I am afraid I fed it so much it is

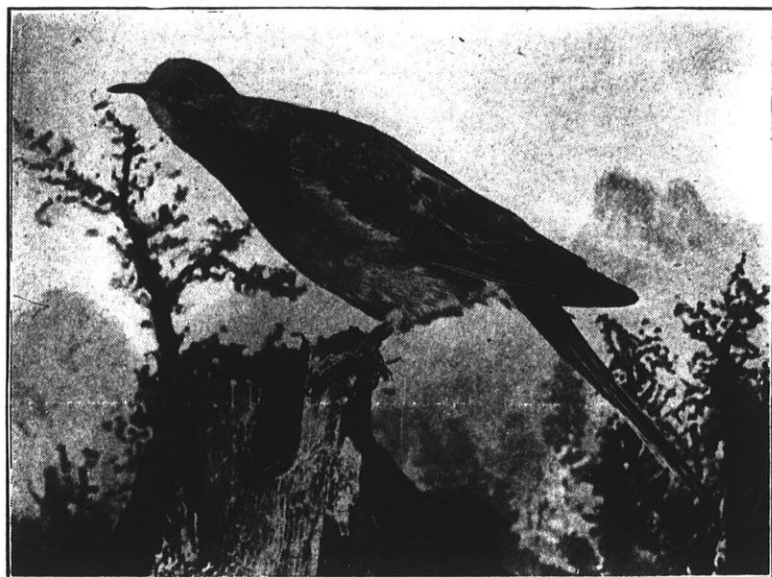
seven and a half feet and did it along in October and November. I said to my wife it looked like very rich ground, a nice place for a flower garden, and there wouldn't be any weeds to bother, so I thought I would scatter a lot of flower seeds there in the spring, and when the early rain and the sun kissed the surface and it began to become green, I went down there, and as you live, the weeds were holding a spring round-up; they were all there, pigeon grass, pigweed, lamb's quarters, ragweed, thistles, and, as I live, a mullein. Now, where did they come from? From way, way, way down below, clearly.

In the Year Book of Agriculture back about six or seven years, we were told that there are two hundred and ninety million acres of land under cultivation in America, and that is followed by the statement that weeds do a damage to this land under cultivation of about one dollar an acre. That would be two hundred and ninety million dollars.

On a sailing vessel between New York and the West India islands, there was a little runty sailor who had the reputation of never exaggerating. One day he was way up on the mast, the foretop gallant, if you please, standing on a spar. The little fellow was known as Billy Peters, and his shoe string broke, his foot turned and he fell to the deck below. There was a crowd of men there and somebody in the crowd said, "What has happened?" Billy had not been quite knocked silly, and he got on his feet, saluted and said, "Billy Peters broke his shoe string," and the mate looked at him and said, "You don't exaggerate none, do you?"

Now, when it is said that weeds damage the crops in America at about a dollar an acre, I would like to say to that writer, "You don't exaggerate none, do you?" For, if they only damage some acres a dollar, then the crop is only worth two, for I have seen a lot of acres right here in Wisconsin where the weeds seemed to cut the value right in half.

Now, one-seventh of our birds are weed seed eaters and they have enormous appetites for weed seeds. You take the finches and the sparrows and during most of the year seventy-



MOURNING DOVE.

battle today, and it is going on, not only in Massachusetts, but in the other states adjoining.

Now, some of you will probably say, What has that got to do with birds? It has everything to do with birds; they are the check intended—the twenty-seven members of the wood-pecker family are the police of the forest examining the bark—here are the wood-peckers going up and around the tree; here are the nut hatches standing on their heads coming down, that nothing may be overlooked.

Take the family of warblers and vireos; they examine every leaf, and both sides of every leaf, missing nothing.

I was calling at a house a few years ago and the lady said to me, "Now, you are not a bird doctor—" I thought she was going to say I was a "bird

going to die." I said, "Yes, I was afraid so, too, but not of indigestion." "Well," she said, "don't you think that big angle worm was too much for it?" And I said, "No, Madam, you should have added forty-nine more, each one larger than you gave it." A young robin will eat its weight and a half in twenty-four hours.

As to the destruction of insects, it is prodigious.

We have two hundred weeds in America, according to the Year Book of Agriculture. I was horrified to see this title in one, "The Migration of Weeds," and I said, "Good God, they have taken to flying." And then I thought with some satisfaction that if they were migratory we had migratory birds as well.

Where do the weeds come from?

Two years ago I made an island in Green Lake. We dug the dirt up for

five per cent of their food consists of seeds and weeds.

Prof. Beale, of the Biological Survey, has ascertained that one family, that is, one species of the family of sparrows, the tree sparrow, a little gray bird—many of you never saw it—according to its distribution in the state of Iowa eats eight hundred and seventy-five tons of weed seed annually. It is not a migrant, it winters over. There is the Song and the White Throat and the Vesper and the Fox and the Chippy and the Swamp and the Tree and the Grasshopper and the Field, and I have not enumerated them all yet.

Gentlemen, isn't the best time to kill a weed just before it grows, if possible, to prevent its growth? Just think what a multitude of weeds could be grown from eight hundred and seventy-five tons of weed seed!

Supt. McKerrow, Mr. Roberts and everybody interested in sheep will tell you that they are grand things to have on the farm on account of the weeds they destroy, and that is perfectly true, but I want to say that a hundred mourning doves will destroy more weeds than a hundred sheep. I want to say that a hundred quail will destroy more weeds than a thousand sheep. Take a mourning dove and a fairly moderate breakfast would be about three thousand pigeon grass seed, and on a Christmas day a quail was killed that had made a very pretty Christmas dinner, it had eaten a little over ten thousand pigweed seeds for that Christmas dinner. During the days of Audobon, quail sold for a penny apiece. These are significant facts—they come now from the south to Chicago, you can buy them out of cold storage and they will charge you five or six dollars a dozen. Do you know what that means? It means that we are slaughtering them—exterminating them.

Oh, well, you say, the gun clubs will look after them. Yes, so they will, just as a nice tabby cat will look after a good dish of luscious cream if you leave the two together.

Do you know what we did with the passenger pigeon? You have heard a good many references to them; some of the papers have been offering one hundred dollars for a good

specimen. I had a circular I received a week ago, which I intended to bring, and in that is an offer of seven hundred and twenty dollars for a single pair of undisturbed passenger pigeons which are found nesting in America. But they are gone, never to come back.

#### *Bird Protection from an Economic Standpoint.*

Now gentlemen, instead of legislating for protection, sometimes we legislate against birds. The old state of Pennsylvania did that in what is known as the "Scalp Act." They offered a premium of fifty cents for every owl, hawk, mink and weasel killed in that state, and twenty-five cents went to the man making out the affidavit; seventy-five cents it cost. Now, that was to protect the chicken industry of Pennsylvania, and I want to show you how it worked. In just eighteen months—before the law could be repealed—the tax payers paid out ninety thousand dollars. Now, we will suppose that the hawks and owls and minks and weasels in the state killed five thousand chickens annually. There were comparatively few minks and weasels killed, mostly hawks and owls, and the owls killed very few chickens, unless they were allowed to roost in the trees, and if you take care of your poultry that way they are doing you a kindness, because you are better off without them. We will say they killed five thousand annually, at twenty-five cents apiece, which would be a good price, because some of them were taken when they were young, that would be \$1,250 lost for the year, and for the eighteen months, \$1,875, so the taxpayers of the state of Pennsylvania paid out ninety thousand dollars to save \$1,875.

Now, it is estimated that a hawk and an owl will kill at least a thousand mice in a year, or their equivalent in harmful insects, and at two cents apiece that would be twenty dollars, and I know there is no farmer here who would care to board mice for less than two cents a year. For the eighteen months, that would make them worth to the state thirty dollars. These creatures which were legislated against for eighteen months

were undoubtedly worth thirty dollars to the state.

Now, you multiply that by the number of birds killed, 120,571, and add the ninety thousand dollars paid for killing them; do you see where you are, right up into the millions. So, it did not pay to legislate against them, did it?

Now I want to say it does not pay very well to legislate for them. Of course we have laws now protecting them—let me see, haven't we laws protecting game in Wisconsin? I think I have heard something of the kind. I believe there are game wardens in Wisconsin and you know how they protect the game. Mere legislation does not amount to anything; there must be education.

Gentlemen, Shakespeare makes one of his characters say, "I would love but little if I could tell how much." Now, I am a bird lover and if I talk thirty minutes or three hours, it doesn't make very much difference, because I never would get through, so call me down, Mr. Chairman, when I exceed my time.

#### *The Story of "Yorick."*

Now, I want to talk a little about bluejays (showing a dead bird). Do you see that fellow? That is what is left of him and his name was Yorick. He was a fellow of infinite jest and excellent fancy, and a near neighbor of mine. He lived near my home in the trees and I knew him passing well. One Sunday morning a new hired man of mine, like McGinty, dressed in his best Sunday clothes, wearing a clean shave, produced from somewhere a concealed weapon, a shotgun, and went out to serve the Lord by shooting bluejays. I was on the scene of action almost immediately, and yet just too late, I said to him, "Jake, I hope you made a good shot, because I have a presentiment that it is going to cost you your job. What did you kill him for?" He said, "Why, Doc, don't you want me to kill bluejays?" "No, sir, I don't want you to kill bluejays," and I am afraid my manner did not have the repose that stamps the cast of a Vere de Vere, for he began to get troubled a little and he said, "But dad always encouraged us boys to kill bluejays, I-

cause they kill young chickens and they suck eggs and they eat young birds and they destroy a lot of birds' eggs, and you ain't going to kick because I killed that old jay, are you?"

Well, I want to say there are some jays that deserve extermination; the jay that works the individual members of opposing parties during political contests, he may deserve extermination, but with Yorick its the old story—give a dog a bad name and hang him. Everybody hates a bluejay, and why? I really would like to have somebody tell. Because he sucks eggs and kills young chickens and eats other birds? That is the indictment. I said to Jake, "Jake, your father is a fool, he didn't know what he was talking about. All the trouble with your statement is simply that it is false."

The whole trouble is prejudice, just the need of education. Professor Hinchshaw, of the Biological Survey, examined the stomachs of 292 bluejays, extending over a year and taken in almost every state and territory, a great many right in breeding time, and I will tell you what he found. He found in two of them the remains of birds and in three of them the remains of shells. Now, two of the three whose stomachs contained shells were shot, one in October and the other the very last day of August. Birds do not breed very much at that time, so those were eggs that had been left in nests undoubtedly. And who can say that the remains of the birds found in the stomachs of two others were not birds that had died in the nests and by the mother bird had been thrown to the ground?

I want to defend Yorick, a fellow of infinite jest and most excellent humor. He used to love to whistle to the old shepherd dog when he was asleep. He loved to mimic the fool hen, which, after laying an egg, would cackle and call everybody's attention to the fact so birds without feathers could come and steal it. He was a good bit of a cynic and our relations had been cordial but not intimate, and that fellow shot him at my own door. Alas! poor Yorick!

Now, boys, see that. That is a rose-breasted grosbeak. I found him on the walk at Green Lake one morning about six o'clock and I took him

home and skinned him. I was going to address the school there on the subject of bird protection, and I took that melancholy specimen with me. I said, "I hate to think that the boy who killed that bird is here—no, I don't think he is here, I think he ran away from school after doing that." The skull had been fractured with a stone from a sling shot, and I said, "I am sorry for that boy; maybe he didn't know any better, but I wouldn't tell his name if I knew it, because you wouldn't like him. I am sorry for his mother, because his mother probably thinks he is going to grow up and be a fine man, but," I said, "how can a boy be anything who starts out in life as a robber? He robbed you and he robbed me, and he robbed everybody that loves exquisite melody and beauty and song. He robbed the spring of something of its beauty."

The next day a boy came up to my house and they said he wanted to see me. I said, "Send him into the office," and he came in. I said, "Hello, Billy, what is it?" "Oh," he said, "nothing very much!" "What is it, Billy, what do you want to see me about?" "Nothing very much." He walked over and looked out the window, and I could see the side of his face; I saw his chin trembling a little, so I said, "Billy, I won't tell anybody you killed that grosbeak." He turned around, and he said, "Won't you tell?" "No, I won't tell." He said, "I don't think the fellows would care so much, but the girls wouldn't like me, and I think my mother would just 'spise me," that is the way he put it, "if she knew it," and I saw he would never do that thing again.

A telephone company came to me, they wanted to clear up a quarter of a mile of tangle on the highway, and I said, "I can't give you the right." "Why?" "Well, I don't own it." "But they told us you owned it." "Well," I said, "the birds have had undisputed possession for twenty years and gained title."

Now,—oh, Lord, I ain't half through, and my time is more than up.

Just leave a place for the birds, give them a chance.

It is estimated that the destruction of birds costs America eight hundred millions of dollars annually, and when the time comes that the last bird is slaughtered, life will cease.

You see I am making this plea for the birds because of their economic value, I am making this plea for the birds because of the way they appeal to the thrift of man, to the intellect of man, ornithology being one of the most baffling, inscrutable and wonderful among the sciences.

I am making this appeal for the birds on account of the spiritual uplift they give us. The bird lover on the wings of the bird he loves, in some true sense, is lifted up, up, up, where Alps on Alps rise, to those far heights where he could never climb alone, and this was the feeling in the heart of the poet Bryant, when he watched the wonderful waterfowl take her flight and cried out:

"Thou'rt gone, the abyss of heaven  
Hath swallowed up thy form; yet on  
my heart  
Deeply has sunk the lesson thou hast  
given.  
And shall not soon depart.  
"He who, from zone to zone,  
Guides through the boundless sky thy  
certain flight,  
In the long way that I must tread  
alone,  
Will lead my steps aright."

#### THE BOY'S DISSIPATION

J. H. Maddy, of the Erie Railroad, was born in Muncie, Indiana. He had two cousins who lived on a farm outside the city.

"One fall," said Maddy, "the boys had been working very hard and their father told them they might take a load of apples to town, sell them and keep the money. The boys, on reaching the town, stood around for a time and finally sold the apples. Then they wandered in and out of the stores for two or three hours trying to find something to buy to take back home—finally they bought half a bushel of apples."—Philadelphia Sat. Evening Post.

Mention this paper when writing to advertisers.

### WHEN DOCTORS DISAGREE

The use of lime sulphur as a summer spray is yet in the experimental stage. A few enthusiasts are now recommending its use exclusively but we must await further trials. Certainly every one who sprays *hopes* that it may displace Bordeaux and none more fervently than those whose task it is to give out information. How perfectly simple and easy to say: "Just pour one and a half gallons of this beautiful clear liquid into fifty gallons of water and go ahead." Who wouldn't spray? But to the average grower we say,—go easy. As an example of the difference of opinion note the following extracts from papers read at the annual meeting of the Illinois society last February.

*W. M. Scott, U. S. Dept. of Agr. Experiments in Va. and Mich.*

*Effects on the Foliage.*—Bordeaux mixture caused more injury than either of the lime-sulphur preparations and this injury increased as the season advanced. The leaves were more or less spotted with circular brown areas and a considerable percentage of them turned yellow and dropped off. The trees sprayed with the lime-sulphur solution went through the season with much better foliage than those sprayed with Bordeaux mixture, demonstrating the superiority of the former fungicide over the latter in this respect.

*Effect on the Fruit.*—There was practically no difference between the lime-sulphur solution and the Bordeaux mixture in the control of the diseases that occurred on the fruit. Apple scab, fruit spot and sooty blotch were controlled equally well by both fungicides.

The fruit of all varieties sprayed with the lime-sulphur solution was almost free from spray russet. The natural russet of the stem end was enlarged slightly and on some specimens this ran over on to the side of the apple; but as a rule the fruit was smooth, clean and highly colored. The high color and general appearance of this fruit would place it in a grade higher than that sprayed with Bordeaux, which would mean twenty-five cents to fifty cents a barrel in price.

*The Control of the Apple Scab.*—It will be seen from this table that the home-made lime-sulphur solution and the Bordeaux mixture both held the scab down to about six per cent of the crop, while practically all of the unsprayed fruit was scabby. The plot sprayed with the commercial solution had the lowest percentage of scabby fruit (2.2), but this was probably due to a difference in the plots and not in the fungicides. It would seem from these results and those obtained in previous experiments that the efficiency of the lime-sulphur solution as a remedy for apple scab could no longer be questioned.

*S. B. Watkins, Asst. Chemist, University of Illinois. Experiments in Illinois 1910.*

#### SUMMARY.

1. Self-boiled lime and sulfur possesses very little fungicidal value in controlling apple scab, and is not very adhesive.

2. Home-made lime sulfur is more effective in controlling scab than commercial lime sulfur, and also is more adhesive and causes less foliage injury.

3. Bordeaux mixture, 4-4-50, is a much more effective fungicide than lime sulfur, one application of it giving better results than three of lime sulfur.

4. Arsenates of lead containing high amounts of arsenic acid when combined with lime sulfur, cause considerably more leaf injury and fruit russet than arsenates of low arsenic acid content.

5. Bordeaux mixture followed by applications of 4-50 milk of lime causes much less russetting of fruit and injury to foliage than as ordinarily applied. The lime seems to have a stimulating effect, causing larger foliage and fruit, and makes the Bordeaux more adhesive and effective over a longer period. The combined action of the Bordeaux and milk of lime acted as a shield against the freeze of April 23rd and 24th.

#### CONCLUSIONS.

The evidence obtained from various experiments conducted by the United States Department of Agriculture, and several of the experiment stations, as well as the work of the orchardists,

seems to warrant the following conclusions:

Bordeaux mixture often russets the fruit and injures the foliage of many varieties of apples and its use in the early part of the season should, therefore, be avoided as much as possible.

Lime-sulphur solution, diluted so as to contain four pounds of sulphur in each fifty gallons of spray, is a good substitute for Bordeaux mixture in the treatment of apple scab and some other diseases, and will not materially russet the fruit nor injure the foliage. The concentrated solution may be purchased from the factory and diluted at the rate of one and one-half gallons to fifty gallons of water, or it may be prepared at home.

This fungicide will control apple scab, fruit spot, leaf spot and cedar rust fully as well as Bordeaux mixture, but has not yet proved to be as satisfactory for bitter-rot. Where it is necessary to spray for this disease, the early lime-sulphur applications for scab may be followed at the proper time with Bordeaux for bitter-rot, thus avoiding the russet and yet controlling the rot.

Arsenate of lead may be safely and successfully used in combination with the dilute lime-sulphur solution for the control of the codling moth and other insects.

How about your camera? Keep it in good working order and send in photos of flowering shrubs, gardens and prize crops of all kinds. We want a record of WISCONSIN HORTICULTURE.



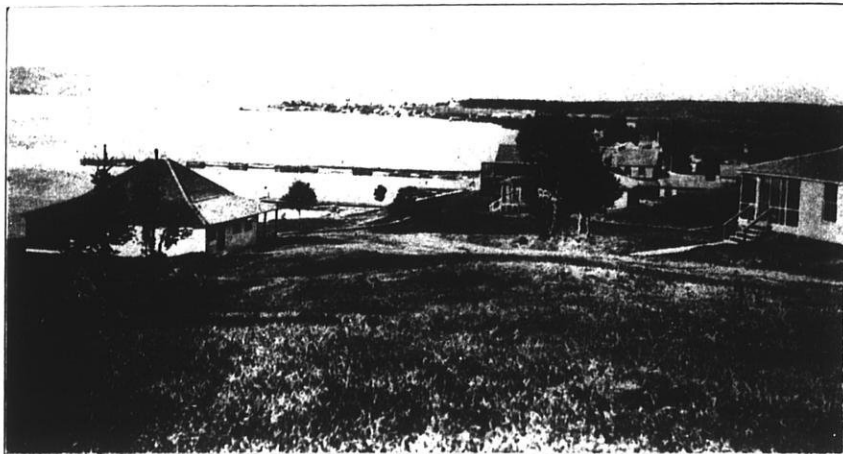
A VINE-COVERED PORCH. ONE VIRGINIA CREEPER, AMPELOPSIS ENGLEMANNI, IN FIVE YEARS ACCOMPLISHED THIS.



### STOCK SOLUTION OF LEAD ARSENATE

Prof. Watkins of the Illinois University offers a very valuable suggestion in the way of a stock solution of lead arsenate as follows:

Although arsenate of lead has many good points in its favor as an insecticide, it is far from being an ideal product. Arsenate of lead which has dried out and become hard is quite difficult to mix again with water, and is not as easily kept in suspension during the process of spraying. In order to avoid this, manufacturers as a rule have sold a product which is about 50 per cent water. This has led to some dissatisfaction, since during transportation the paste has lost water through evaporation, the package not being air-tight. If we were to weigh the contents of the package as soon as received, we would in all probability find it to weigh somewhat less than it did when leaving the factory, so even if we use the material as received one time we may be using a third more arsenate than at others, owing to the degree of evaporation which has taken place. Also, if a package is opened early in the season, a small amount taken out and used, the balance protected in no way from evaporation, it is quite possible that four pounds of the paste at the close of the season will represent five or even six pounds of it as it left the factory. This is almost a total loss since many experimenters claim two pounds per fifty gallons to be as effective as when three or even more are used, and if fifty pounds are purchased, with the expectation of using it as recommended by the factory, it will be found to fall short of that weight if means are not taken to prevent evaporation. Why not avoid all of this by preparing a stock solution of arsenate of lead as follows: Before it is time to use the arsenate, take the contents of a 100 pound package, put it in a fifty gallon barrel and work the whole mass into a thin paste; when this is accomplished add enough water to make the paste up to fifty gallons, then there will be a stock solution, two pounds in each gallon. But, better than that we need a powdered arsenate, then we will avoid paying freight



LA POINTE, MADALINE ISLAND, OPPOSITE BAYFIELD.

on fifty pounds of water every time fifty pounds of arsenate of lead are purchased, and also be saved the trouble of working the thick paste into a thin one. Attention is called to the powdered form since it is a step in the right direction, and if the cost of it does not prove prohibitive, I believe the solution has been solved, since in every other way it gives as perfect satisfaction as paste form.

### THE OLD STRAWBERRY BED

Experienced berry growers will please turn their faces to the wall and take a nap, this little sermon is only for the beginner.

A strawberry bed will bear well for at least four seasons if properly treated after fruiting.

If your bed is like most home garden beds it is merely a mat of vines covering the ground completely except holes here and there that you made with your feet in picking. Perhaps it is not quite as bad as this, perhaps you have thickly matted rows of plants about two feet wide and paths between.

In either case we want to get rid of about 95 per cent of the old bed and provide for a crop of new plants.

If you have the first kind of a bed described above select strips of plants running through the bed each about eight inches wide, three and a half feet apart and cut out everything else. These strips or rows should be outlined with garden line and stakes before beginning, then with a sharp hoe or spade slice off everything out-

side of the lines. Next remove and burn the plants and weeds, cut out and spade spaces between rows. Last of all go over the plant rows left for renewal, clean out all weeds and grass and also about one-half of the plants leaving them about one foot apart and the remainder ought to send out runners enough to furnish a good set for next year. Keep bed clean and cultivate until ground freezes.

If your bed is in rows select your renewal strip just alongside of the original row so as to get only one year old plants for renewal.

### FOR THE BEGINNER

The strawberry plants in the newly set bed must not be allowed to have their own sweet way. You set your plants, in April or early May, about two by three and one-half or four feet, and if you have kept the soil stirred and clean the plants are making lots of runners now and setting new plants. If you are planning to be a specialist, raise prize berries, etc., you will, of course, read up on all the fancy methods of hill culture, etc. Do it if you want to, you will get lots of experience and some berries. If you merely want just strawberries and lots of them at the least expense allow all runners to set that grow between the plants in the row and for a space of one foot on either side. When ambitious runners exceed their limitations kick them back into bounds with your foot or cut them off with the hoe. If you should happen to get into some of our society Reports you may find whole

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## DOOR COUNTY

The city and town of Sturgeon Bay and adjacent village of Sawyer is but part of Door county. There is really much besides. This statement may surprise some people, including not a few Sturgeon Bayites.

Door county or the Door peninsula has been associated in the minds of Wisconsin horticulturists

planted the first orchard, of any size, in Door county and induced his neighbors to do likewise, but as the details of orchard growth at Sturgeon Bay is really no part of this story we will not go into it at this time. These men pursued their business in a quiet, methodical way and no land booms were apparent until recently. With the big crop

thousands of acres of land that from a casual examination appears exactly as well adapted to fruit growing as any near Sturgeon Bay. The native growth is similar, the soil is similar and who shall say the climate is not the same? It is true that magnificent "artery of commerce," the Annapolis & Western, after wandering leisurely from Green Bay to Casco



WISCONSIN.

# Nebraska Horticulture

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NO. 1

## ANNOUNCEMENT.

The management of the Nebraska State Horticultural Society takes pleasure in presenting to the members of the society, this, the initial number of **Nebraska Horticulture**. Horticultural interests, in the state are growing and the publication of this monthly magazine is planned to assist in creating and stimulating yet greater interests.

Horticulture has been gradually developed in Nebraska. At the time of the organization of the State horticultural society in 1869, Nebraska was practically a treeless plain. All there was to break

two subjects, has not been of direct interest to each and every member. And for some time it has been felt that a medium, broader in its field of usefulness, containing a greater and more diversified fund of horticultural information should supersede the bulletins. As a result of this feeling, the increasing interest in horticulture and in keeping with the policy of the executive board to make the influence of the society as widely felt as possible, this publication is launched.

**Nebraska Horticulture** will contain each month

NEBRASKA.

# Michigan Horticulture

Official Organ of the Michigan State Horticultural Society

Vol. I

MAY 1911

No. 1

## OUR NEW LEADER.

By a unanimous vote, the annual meeting of the Michigan State Horticultural Society, at Benton Harbor last December, called to the presidency a young man who has demonstrated his skill, knowledge and enthusiasm as a fruit grower.

T. A. Farrand of Eaton Rapids is a native son of Michigan, having been born at Inkster, Wayne County, December 17, 1872. At seven years of age he left home and his school training was obtained at the Dearborn and Plymouth high schools.

His interest in fruit began as a consumer always trying to get where fruit was growing and that interest has always remained a

passion. He saw the possibilities of bringing them back to a profitable condition, by proper spraying, pruning, cultivating and fertilizing. Not having the capital to buy these orchards, he rented several orchards for a term of years, paying about 50¢ per tree per year for the best of them. His reward has been considerable in cash, but his example has now been

followed by many others. He has also the failures in fruit growing and his judgment is widely sought for in neighboring states as well as at home. While his enthusiasm over Michigan fruit possibilities is great, he knows that it is founded on good judgment and natural conditions that can not fail.

Possessing such qualifications—a love for the work, skill and knowledge gained from actual experience, and a sound faith in the future of Michigan as a fruit state—he is an ideal leader and, with the support of a strong and enthusiastic Executive Board and an intelligent and co-operative membership, the State Horticultural Society can look forward to a grand advance all along



MICHIGAN.

Horticultural journalism surely is contagious. Wisconsin in September, Nebraska in February and Michigan in May. Who will be next?

If it be true that imitation is the sincerest form of praise, we are grateful for the compliment.

pages about "matted" and "half-matted" rows, "hill culture," etc., and you would be lost in a sea of words. Just pass it up, that dope is for the professional; all you want is strawberries. That will be about all this month.

## A BUMPER CROP

Everything points to a bumper crop of fruit in Wisconsin this year. Orchards everywhere are loaded with blossoms.

Our Wausau trial orchard will, if all goes well, yield three thousand bushels of apples on the seven acres. There is also bloom enough for one hundred bushels native plums but it is never safe to count profits on plums at Wausau,—the fruit ripens slowly and is often caught by early fall frosts.

The Medford orchard promises a fair crop and there will be apples at Poplar and Gays Mills.

There will be an immense crop of apples but no grower who sprays and cultivates his orchard need fear an over-supply or a dull market.

Most of the apples will be wormy, scabby and unsalable. Twenty-five years of telling has made but little impression on the average farmer so far as care of fruit trees is concerned. For this reason we say,—no more farm orchards,—except sufficient to supply the family need.

## ORCHARD WORK FOR JUNE

Spray, cultivate and rub off sprouts on trees where not needed. Last of month thin fruit on trees bearing heavily—especially plums, pears and apples. Watch for aphids, living scale lice, plum curculio and other insects and spray when it can be safely done with lime-sulphur solution but always use lead arsenate with it. It is not safe to use it alone as a summer spray. And again cultivate.

A. L. HATCH.

Q.—What are the best commercial crab apples?

A.—Probably Hyslop and Transcendent, but my experience is averse to all crabs as a commercial proposition. Once had the crab apple fever with fifty kinds. None were profitable.

A. L. HATCH.

# Wisconsin Horticulture

Published monthly by the

**Wisconsin State Horticultural Society**  
24 E. Mifflin St., Madison, Wis.

Official organ of the Society

FREDERIC CRANFIELD, Editor  
Secretary W. S. H. S., Madison, Wis.  
ASSOCIATE EDITORS, Sixteen Hundred  
Members of the Society.

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Remit to Secretary W. S. H. S.,  
Madison, Wis.

Spray without ceasing.

June is said to be the month of  
brides.

Be that as it may the horticulturist  
knows for certain that June is the  
month of bugs and weeds.

The attention of our readers is invited  
to the Question and Answer column  
in this issue. Profs. Jones, Sanders,  
Moore, and Stone of the Agricultural  
College never fail to respond when  
called on. Our readers owe them much.

## NOTHING MUCH ABOUT SPRAYING

Spraying is seasonable matter for  
this number and there really should  
be more of it but our space is limited.  
Furthermore every member has been  
furnished with a copy of Bulletin No. 19  
which contains formulas and directions  
for making and applying the standard  
spraying mixtures.

## FLOWERS

Flowers should occupy a large part  
of every woman's time. There is something  
so refining and encouraging about the  
little blossoms as they look up to you,  
that we instinctively feel their influence  
and for a time forget our sordid cares  
and are rested. Perennials are less trouble  
than annuals, but you have a much wider  
range in choice with seedlings and the  
flowers are so lovely they well repay  
the extra labor.

MRS. L. H. PALMER.

Last month Miss Dean, who is  
teacher of botany in the Madison high  
school agreed to furnish a list of wild  
flowers blooming in May. The list, which  
proved too big for a postal card, was  
duly received but the printer,—may  
confusion seize him—crowded it out of  
the May number. Although somewhat late,  
here it is: I will give you a list of the  
flowers brought in by my pupils in May,  
1909. Last year was too exceptional,  
you remember. I do not know just  
where each flower was obtained.

The list begins May 3 and proceeds  
in order of date of bringing in."

Cowslip; Yellow Violet; Spring  
Beauty; Dog-tooth Violet; Tooth-  
wort; Skunk Cabbage; Rue Anemone;  
Everlasting; Wood Anemone; Shepherd's  
Purse; Wild Strawberry; Wild Oxalis;  
Jack-in-the Pulpit; White Trillium;  
Bluebells (Lungwort); Robin Runaway;  
White Violet (small blue center);  
Drooping Trillium; (Dark) Puccoon;  
Wild Geranium; Wood Betony (Louse-  
wort); Solomon's Seal; Vetch; Shooting  
Star; Yellow Star-grass; (Light) Puccoon;  
Wild Phlox; Barberry; Meadow Rue  
(staminate); Wild Mustard; Wild Columbine;  
Thorn Apple; Water Buttercup; Blue

Tradescantia; White Clover; May  
Apple (Mandrake); Yellow Sweet  
Clover; Clivers; White Violet  
(large); Wild Crab Apple; Blue-eyed  
Grass.

Here are some additions from other  
years:

Shadbush (June - berry); Elder-  
berry; Bluets; Oak (staminate);  
Sarsaparilla; Mountain Ash; Phacelia;  
Showy Orchis; Wild Ginger; Yellow  
Lady's Slipper; Wild Indigo; Birdfoot  
Violet; Blackberry; Fleabane; Locust;  
Linden; Burr-flower; Yarrow; Tall  
Anemone; Fumitory; Bell-wort (large);  
Spurge.

In 1910 there were 44 wild flowers  
brought in during March and April.

ALLETTA F. DEAN.

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ing is rapidly advancing.

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## SPRAY CALENDAR

WHAT?	WHY?	HOW?	WHEN?			REMARKS.
			1ST SPRAYING.	2D SPRAYING.	3D SPRAYING.	
Apple	Scab and bitter rot	Bordeaux Mixture or Lime-Sulphur	Before growth begins (1 to 10 L. S.)	Just after blossoms drop (1 to 30 or 35 L. S.)	10 days after 2d spraying. (1 to 30 or 35 L. S.)	
	Codling moth	Arsenate of Lead combined with Bordeaux	Just after blossoms drop	10 days later	Last week of July or 1st week of August for 2d brood	1st and 2d spraying same as 2d and 3d for scab; merely add arsenate of lead to Bordeaux
	Oyster shell scale	Lime-Sulphur	March or early April but before growth starts			Do not use Commercial Lime-sulphur on growing plants at less dilution than 1 to 30
	Oyster shell scale	Kerosene emulsion	When young are active	10 to 12 days later	10 to 12 days later	
Cherry and Plum	Mildew and shot-hole fungus	Bordeaux Mixture 3—4—50	When leaves are about $\frac{1}{3}$ grown			Add arsenate of lead for slug and other biting insects, 2 lbs. to 50 gals.
Currant and Gooseberry	Mildew, blight and currant worm	Bordeaux and Arsenate of Lead	When leaves are fully developed	2 to 3 weeks later		
Grapes	Mildew and anthracnose	Bordeaux	Before leaf buds open	2 to 3 weeks later	3rd, 4th and 5th applications at intervals of 2 weeks if required.	
Strawberry	Leaf-spot or blight and leaf-eating insects	Bordeaux and Arsenate of Lead	When first leaves appear	After blossoms fall		
Raspberry and Blackberry	Anthracnose and fungous diseases	Bordeaux	As above	2 weeks later		Spray new growth after fruit harvest

## Questions and Answers

Q.—In what way do the spores of apple scab carry over winter?

A.—The scab fungus persists in the scabby leaves lying on the ground over winter and a new crop of spores develops upon these in early spring just as the leaf buds are opening. Probably most of the early spring infection comes from these and therefore the importance of either keeping the foliage clean by spraying or destroying these old leaves by burning or plowing under. The fungus also may live over on the twigs of scabby trees.

PROF. L. R. JONES.

Q.—What is good to keep the pear trees healthy, as they rot in crotches?

This starts as "body blight" usually due to bacteria or frost or both working together. Keep orchard as free as possible from twig blight. Do not let young sprouts develop or remain near bases of large limbs, since the blight often works down

these and starts body blight. If infection gets started in crotch or elsewhere on trunk of trees, cut out, disinfect surface of wound with corrosive sublimate solution and cover with lead paint.

L. R. J.

Q.—What causes the galls on blackberry roots? Is there a known remedy?

A.—This is one form of the crown gall which occurs on various fruit trees, apple, peach, etc. It is a bacterial disease (*Pseudomonas tumefaciens*). No remedy known. Destroy the infected plants and use the ground for some crop not liable to the gall.

L. R. J.

Q.—Why is fruiting foliage more susceptible to fungus injury than growth foliage?

A.—I doubt whether it is as a rule. For example, nursery stock is especially liable to injury by mildew.

L. R. J.

Q.—Can rust be prevented on asparagus? How may asparagus diseases be prevented? How eradicated

after they have once gained a foothold?

A.—Unfortunately, no way is known as yet to prevent this wholly. Certain commercial varieties are more resistant (Palmetto in some

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PROPRIETOR

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100 or 100000

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sections at least) and recent results in Massachusetts lead to the hope for improvement in this respect. Prof. Norton, the government expert working in conjunction with the Massachusetts Asparagus Growers' Association, has developed what he hopes is a rust-resistant variety. We understand that this is now being propagated for more general trial as soon as may be. Herein lies the most promise. For the present we can only summarize helpful measures as follows:

In selecting a site for asparagus, avoid very dry, light soils, selecting those of good water-holding capacity, but also avoid shaded or protected locations which hold the morning dew. Fertilize well and practice clean culture to hold up general vigor and cut and burn tops late in the fall to destroy spores. Spraying with resin-bordeaux mixture helps, but is not profitable unless on large fields where a special pump can be afforded.

L. R. J.

Q.—In case of red rust on blackberry hills, is the sap circulation affected so that new plants coming up several feet away are liable to be tainted even if the old diseased plant has been removed?

A.—Yes, all sprouts or shoots coming from the diseased hill are liable to be infected. The only safe way is to uproot and destroy the entire hill.

L. R. J.

Q.—Is there any record of a chemical and microscopical examination of the year's growth of various varieties of apple trees?

A.—No; nothing so far as I know.

Q.—Is Fire Blight a bacterial disease?

A.—Yes. The same organism, *Bacillus Amylovorus*, attacks pear and apple and also, but less commonly, some other related trees.

L. R. J.

Q.—Will apple trees with "black-heart" ever recover so that they become valuable trees?

A.—Yes. So long as the cambium is not injured and new sap wood is

developed normally the death of the heart wood does not necessarily harm the tree.

L. R. J.

Q.—Every spring my blackberries come through the winter in good condition and the outlook for a good yield is very promising until the fruit is about half grown, when they commence to *dry up* (the fruit), the ends of the cane die with the result that I get no berries. What is the cause and remedy?

A.—Probably anthracnose; see next question and answer. If not this, please submit sample.

Q.—Under what conditions can blackberries be planted to avoid the failure so general all over the state on account of crown galls, septoria and anthracnose?

Select thrifty young plants free from crown gall and, so far as practicable, from other diseases. Anthracnose can be kept in practical subjection by spraying the young canes with Bordeaux mixture two or three times before harvest, beginning when they are one foot high. Prune out and burn any diseased canes after harvest. This spraying is also the best remedy for the septoria or leaf spot disease.

L. R. J.

Q.—What is the remedy for blight?

A.—For "Fire Blight," a bacterial blight in fruit trees, prune out all "hold over" blight in autumn; and follow this up as twig blight appears in the early summer; disinfect pruning tools with corrosive sublimate solution; use lead paint on wounds.

L. R. J.

Q.—If a stone or plank is placed on a fresh spot of grass in the Old Moon or Dark of the Moon, why is the grass all dies and why does it remain dead nearly the balance of the season? The stone remaining on the spot for several weeks or the same length of time in each case?

A.—Very interesting. "C."

Q.—Do you advise heading back Black Cap raspberries? When?

A.—It was clearly demonstrated at the Wisconsin Experiment Station,

after seven years' trial, that nothing was gained in the matter of yield by pinching the growing shoots of raspberries either black or red. Most growers cut back the fruiting canes in spring about one-fourth or less. "C"

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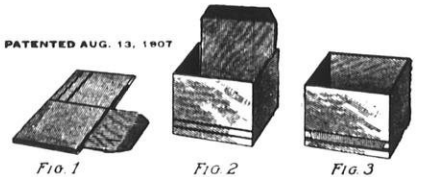
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**J. E. MATHEWSON**

Sheboygan,

Wisconsin

Q.—Is the "Compass" cherry a success,—i. e., does it bear crops of any value?

A.—Very handsome flowering shrub. Fruit a trifle better than choke-cherry but not nearly as good as poorest of American plums. One De Soto plum tree worth two dozen Compass cherry.

Q.—How far out from trunk should cherry and plum trees be cultivated?

A.—Cultivate entire surface between trees. Keep grass and grain out of orchard. Potatoes, beans, etc., may be grown between trees first three or four years.

Q.—If you cover green sod (to exclude the light entirely) with a stone or plank or anything opaque during the New or Light of the Moon, why does the grass or green stuff continue to grow if same is covered for weeks though it is bleached white?

A.—Important if true.

Q.—How deep should small seeds like the seeds of the strawberry be planted?

A.—Cover very lightly not to exceed one-half inch. Lay boards over rows after sowing and, remove as seedlings appear.

Q.—Name a dozen blooming ornamental hardy trees adapted to Wisconsin?

A.—Impossible; the following are hardy, ornamental and blossom profusely; locust, cherry, native and cultivated, plum, hawthorn and wild crab.

Q.—How can I get a good stand of vetch? The sand or Hairy Vetch is praised so much as a cover crop I thought I would try it. I did so last summer but with poor success.

A.—The first factor in the securing of a good stand of vetch is to have good seed. It has been the experience of the writer that a very considerable amount of the vetch seed offered on the market is of insufficient germinating capacity to make it desirable for use. The best thing to do is to send early to a seed firm and get a sample from which a germinating test should be made.

If good seed is used the next fac-

tor influencing the stand of vetch will be the moisture. Vetch requires a fairly good amount of moisture in the soil in order that it may germinate. Of course, the only method of having good moisture is that there be frequent rains or that the soil has been constantly tilled so as to conserve what moisture had fallen early in the season. I should judge that probably the failure of your correspondent to get a stand last year was due to poor seed as the seed last year seemed to be even poorer than usual.

J. G. MOORE.

Q.—Is not Door county considered the best location in the state of Wisconsin for fruit growing in general, from past results, and are not the climatic conditions more favorable there than in other parts of the state?

A.—This question was anonymous but was evidently dropped in by some Sturgeon Bayite.

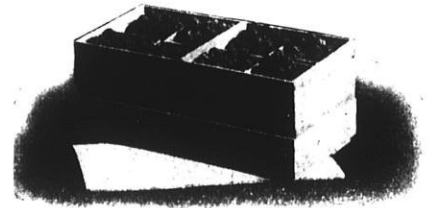
Door county is certainly *one* of the very best counties in the state for fruit growing but it is not by any means the only place where fruit may be successfully or profitably grown. The two important points in which Door county excel are: First, thin rather infertile soil which induces early bearing and, second, the remarkable influence of Green bay and Lake Michigan in preventing destructive spring frosts. The spring of 1911 demonstrated this fully. This is especially important in the case of cherries which bloom earlier than apples. This probably applies with equal force to Bayfield and the whole southern shore of Lake Superior although it has not been as fully demonstrated yet. While Door county is well adapted to cherry growing it is not better than a hundred other localities in the state for apple raising. Apples do not color as highly there as in many other counties and the early maturing varieties ripen too late to catch the best early market. Door county is good, very good but it is not by any means all of Wisconsin. "C."

Q.—What variety of blackberry would you recommend for home consumption?

A.—Eldorado.

Q.—Is it possible to cleft-graft pears on apple trees and apples on pears?

A.—Possible but not practical. The union is never perfect.



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in its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY**  
**Wauwatosa, Wisconsin**

Q.—How will the freeze of last April affect the crop of apple, plum, cherry, etc.?

A.—Crop of 1911 should be biggest on record.

Q.—Is manure from barnyard good for plums?

A.—Yes.

Q.—Name three varieties of grape for home consumption.

A.—Concord, Delaware, Niagara.

Q.—What time of the year is the best to set out blackberry roots, spring or fall, and what kind of roots, from old or young plants?

A.—Spring; young plants from root cuttings. Dividing old roots not profitable.

Q.—Would green hardwood sawdust be considered a good mulch for raspberries or would it be advisable to mix it with slaked lime before applying to keep it from souring?

A.—It is unlikely that any damage would result from use of green sawdust unless applied very heavily.

Q.—Name the ingredients of a tree paint that is poisonous in nature (not injurious to the trees) and will not wash off during rains and will keep rabbits and mice from injuring the trees?

A.—Pure white lead and pure linseed oil paint will not injure trees, will prevent entrance of borers and is said to prevent attacks of rabbits.

Q.—What varieties of cherry and plum trees are best suited for northern Wisconsin?

A.—Native plums such as De Soto, Hawkeye, Forest Garden, Quaker, etc. Cherries do well where water influence prevails as at Bayfield and whole southern shore of Superior, also Door county. Cherries have not been thoroughly tested "inland" in northern Wisconsin. Early Richmond and Montmorency best kinds for any part of Wisconsin where cherries succeed.

Q.—What one variety of apples is the best for commercial orchard in this part of Wisconsin? (Juneau Co.)

A.—Duchess.

Q.—How can I preserve a hollow apple tree from further decay? Hollow space a little larger than a man's fist and extending beyond the holes by two or more feet.

A.—Remove all dead tissue, scrape clean, disinfect cavity with weak copper sulfate solution, or corrosive sublimate and fill with cement extending only to outer line of heart wood so that the growing parts may extend over the cement and heal the wound.

Q.—What is the best strawberry for the small garden?

A.—Aroma.

Q.—Is clay soil underlaid with sand rock a good soil for cherries?

A.—Yes; but a light soil is better, a gravelly clay loam underlaid with limestone is ideal.

Q.—Is the Avista apple adapted to this climate, which is Vesper, Wood county, Wis.?

A.—The Avista has done exceedingly well at Wausau.

Q.—What currant would you advise setting?

A.—If only one, Perfection.

Q.—Which is the best grape for this climate? (Vesper, Wood Co., Wis.)

A.—It is doubtful if any of the grapes commonly grown in southern Wisconsin and Michigan will ripen as far north as Vesper. Try Concord.

Q.—Does the stock have an influence on the cion to that degree that it will affect the size or flavor of the fruit?

A.—No.

Q.—Which would you recommend as best native plums for market?

A.—Surprise, De Soto, Rockford, Hammer, Forest Garden.

Q.—What are the three most hardy and productive varieties of late apples, sour, best suited to southern Wisconsin growing?

A.—Northwestern Greening, McIntosh Red, Wealthy.

## JEWELL MINNESOTA GROWN Nursery Stock

Complete assortment of Fruit and Ornamental stock in all varieties suited to northern culture. A specialty of Hardy Shade Trees, Windbreak Stock, Evergreens (Coniferous), Deciduous Shrubs, Apples and Native Plums.

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The Coe, Converse & Edwards Co.  
FORT ATKINSON, WISCONSIN  
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Q.—What are the three most hardy and productive varieties of early apples best suited for growing in southern Wisconsin?

A. Duchess, McMahon, Tetofsky.

Q.—Is the somewhat over-advertised blue rose worthy of cultivation otherwise than as a novelty, or is it of the "Verde" rose and the seedless apple type variety?

A.—From what we have seen of this rose we are inclined to class it with such remarkable creations as the Wonderberry, Compass Cherry and Baby Rambler rose, all of which have some merits and make good catalog reading but will pass away for something better.

W. J. M.

Q.—My arbor vitae hedge shows black spots in different places this spring, some of them as large as one foot square. The leaves are perfectly black. What kind of a fungus causes this? Do you know of any remedy? When I sprayed my fruit trees the first time this spring (arsenate of lead and Bordeaux mixture), I gave those black spots a dose also. What the result will be I cannot tell.

A.—The dying out of the spots in the hedge is probably not due to any insect or fungous parasite but rather to the weakening of the plants by the crowding or overgrowth of more vigorous neighbors, and by winter injury from ice and snow, and probably accentuated by excessive pruning. Of course, you will realize that there is a fierce struggle for existence going on in an Arbor Vitae hedge and the weak branches of plants must suffer. There is nothing to do except to close the gap, either by so training the neighboring branches as to cover the gap or else by renewed planting.

PROF. L. R. JONES.

Q.—What is the most prolific fall sweet apple for Wisconsin?

A.—Early Sweet Russian or Yellow Sweet. Ans. by W. J. M.

Q.—Would it be advisable to plant the Lombard plum on a commercial scale?

A.—Most certainly; it is one of the most reliable varieties of the tame plums. Ans. by W. J. M.

Q.—Name six best hardiest peaches and culture?

A.—We know of no hardy peaches for Wisconsin except possibly a variety grown by Mr. B. R. Bones of Racine. The history of this variety seems to be very obscure.

## WISCONSIN NURSERIES

Grow and handle all kinds of nursery stock. We employ no agents but sell direct. If in the market you can save money by buying of us. Get our prices.

**WISCONSIN NURSERIES,**  
W. S. MOYLE, Proprietor.

## Winter Apples of Quality

Gem City, Hanko and Tuttle's Winter, three great Wisconsin winter apples. Quality excellent, keep in ordinary cellar until spring, trees hardy. Limited quantity, delivery fall 1911 and spring 1912, one year budded and one year grafted. Full line other varieties apples and plums, one year only. Have discontinued growing fruit trees with top older than one year. Have discontinued dealing in nursery stock and sell only our own grown. Our soil is a heavy upland clay on which we grow stock of a superior quality and we make a specialty of fruit trees for planting commercial orchards. Catalogue and circulars.

## Henry Lake Sons Co., Nurserymen

Black River Falls, Wisconsin

## Arsenate of Lead, Lime—Sulphur Solution

Fully Comply with most rigid requirements of Insecticide Act of 1910



Grasselli Arsenate of Lead is being successfully used to destroy all leaf-eating insects, such as Codling Moth, Potato Beetle, Curculio, etc.

The Grand Sweepstake prize of \$1000 for the best carload of apples shown at the National Apple Show, Spokane, Washington, has been won by users of Grasselli Arsenate of Lead for the last three years.

Grasselli Lime Sulphur Solution is the Standard remedy for San Jose Scale. It has also come into prominence as a summer spray to replace Bordeaux Mixture.

For Further Information Write

**The Grasselli Chemical Company,**  
The Grasselli Chemical Co., Est. 1839

**Milwaukee, Wis.**  
Main Office Cleveland



**LETTUCE IN SUMMER**

Lettuce may be had all summer and late in the fall if planted as soon as the ground can be worked and every two or three weeks after until August 1st. The July and August plantings can be managed if the seed is covered by a board or piece of sacking until germinated and then grown under the cheesecloth screen described in the Report for 1910, p. 214, and watered and cultivated thoroughly—as sprinkling of 1 oz. to the gallon solution of nitrate of soda every ten days the ground should have been well enriched before sowing.

The Cos varieties are the best to withstand summer heat, and Black-Seeded Tennis Ball of the cabbage heading class. I found the Express, Trianon, and Paris White Cos, and Black-Seeded Tennis Ball or California Cream Butter ranked as named in their heat resisting qualities. One width of screen as described accommodates three rows eight or nine inches apart.

The August planting can be made to furnish lettuce through October.

MISS BLANCHARD HARPER.

Madison, Wis.

**THE PANSY**

All flowers have a language of their own and they have often been employed as a silent messenger to bear a declaration of regard from the bashful swain to his lady fair. They take no small part in the affairs of life and they are celebrated in song and story, and universally the Pansy means loving thoughts. To me they are also the symbol of courage, enthusiasm, constancy and plucky endeavor.

Their blossoms are the first to greet us in spring and their cheerful faces make glad our lives until the chill snow of winter covers them from our sight.

The Pansy of today is larger and more varied in form and coloring than the Johnny-Jump-Up of our grandmother's time. This is due to the thoughtful care and cultivation given them by skilled men and women. Pansies are easily grown and are universally beloved. Seed

may be sown in the open ground in spring or autumn, and will thrive on most soils and in most situations where they can have an abundance of moisture.

To raise show or exhibition Pansies, start the seed in a box of common garden soil, having the soil about three inches in depth; wet the soil thoroughly, sow the seeds not too thickly on top, pressing them firmly into the earth with the hand, then scatter or sift earth over the seeds until they are covered from sight, press again with the hand being sure that all seeds are covered.

Set the box in a sunny window, keeping the soil moist at all times. In about ten days the tiny plants will appear. When the second leaves are as large as a kernel of wheat, transplant one and one-half inches apart, setting the plants well into the earth so that the stem up to the leaves is covered.

Keep the box in a sunny, not too hot, place in the open air on the south side of a building on warm days, and in a south window within the house, when it freezes outside, is a good place for the Pansy. Occasionally loosen the soil between the plants and pull out all weeds.

On or about the twentieth of

May, in this climate, set the plants in the permanent bed. Have the soil in this bed well enriched with rotten manure, and for a bed 6x12 feet work in six quarts of wood ashes, and if the soil is a clay mixture, well and good. If it is not, and you can secure clay soil, work two or three handfuls of clay soil into the bed. Set

**FOR SALE**

Fruit Farm of 40-acres five miles from city of Sturgeon Bay, one-half mile from water; thirty-two acres under cultivation, level, without stump or stone. Splendid fruit soil. Good frame house, log barn, well and windmill; 700 cherry, 800 apple set spring of 1911. Best bargain in Door county. Write

**BOX 535.**

**Madison, Wisconsin**

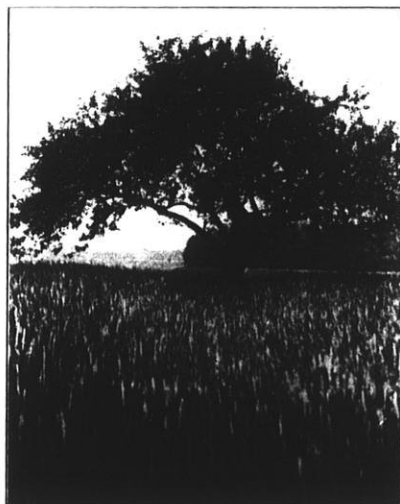
**KNOX  
NURSERIES**

(Established in 1851)

Make a specialty of **Cherry Trees**. They strongly recommend **One Year Cherry Trees** because they are stocky, well headed, well rooted thrifty and vigorous. Plenty of **Two Year** for those who prefer the larger trees. They also have a nice lot of Apple in northern sorts

A trial order will convince any one of their quality.

**H. M. SIMPSON & SONS**  
**Vincennes, Indiana.**



FAMEUSE APPLE TREE PLANTED IN 1854, TWO MILES FROM MANITOWOC. THERE ARE THOUSANDS OF APPLE TREES IN WISCONSIN OVER FIFTY YEARS OLD AND STILL PRODUCTIVE IN SPITE OF UTTER NEGLECT.

the plants six inches apart in the bed and keep the soil well stirred about them, to keep down the weeds and retain the moisture in the soil.

They should begin to bloom in June. As the summer advances and the heat increases the blooms will become smaller, unless you give them extra care. If you wish to have large blossoms, pick all blossoms as soon as they begin to fade and take old tin cans, quart size, and drive a nail two or three times through one side near the bottom; fill these cans with droppings from the hen roost, and bury them in the earth by the side of the plants, with the nail holes next to the roots, fill the cans with rain water, morning, noon and night, and you will be rewarded by giant blooms.

If you are unusually faithful, some of the blossoms will be semi-double with fluted edges, or will take on other unique forms.

If you cannot give them attention, have the bed in a shady place; but if you can give them all the moisture needed, a sunny situation is better.

MARCIA H. HOWLETT.

#### PHILOSOPHY

A member, we don't dare give his name, sends the following:

"Did it ever occur to you that a man's life is full of crosses and temptations? He comes into the world without his consent, and goes out against his will, and the trip between is exceedingly rocky. The rule of contraries is one of the features of the trip.

"When he is little, the big girls kiss him; when he is big the little girls kiss him. If he is poor, he is a bad manager; if he is rich, he is dishonest. If he needs credit, he can't get it; if he is prosperous, everyone wants to do him a favor.

"If he is in politics, it is for graft. If he is out of politics, he is no good to the country. If he doesn't give to charity, he is a stingy cuss; if he does, it is for show. If he is actively religious, he is a hypocrite; if he takes no interest in religion, he is a hardened sinner.

"If he gives affection, he is a soft specimen; if he cares for no one, he

## Door County Lands

ARE THE BEST IN THE STATE OF WISCONSIN

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

**DOOR COUNTY LAND CO.,  
STURGEON BAY, WIS.**

Fig. 1291



# MYERS SPRAY PUMPS

Nozzles, Hose, Fittings, etc.

Fig. 1317



Fig. 653



Fig. 640



Fig. 1410



Fig. 1199



Fig. 702



Fig. 1125

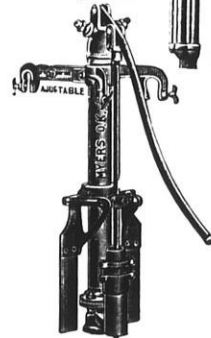


Fig. 1358



Fig. 1363

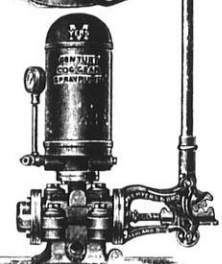


Fig. 1229

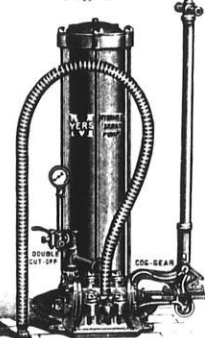


Fig. 1318

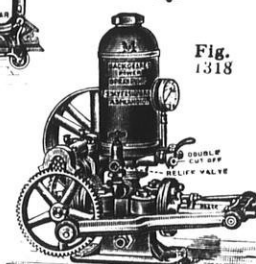
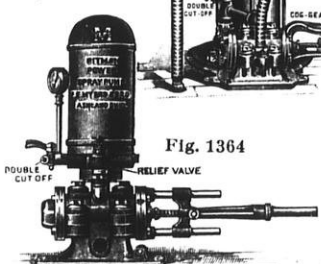


Fig. 1364



When the season arrives you want to be able to SPRAY WITHOUT ANY DELAY OR ANNOYANCE. A single day's delay may prove costly. In order to be safe at all times you must have a dependable spray pump outfit. YOU CAN ALWAYS DEPEND ON THE MYERS. The above illustrations show only a few MYERS SPRAY PUMPS made in all styles and sizes with a full line of NOZZLES AND ACCESSORIES for complete outfits with which to meet every requirement. GET READY NOW. WRITE FOR OUR SPRAY PUMP CATALOG.

**F. E. MYERS & BRO.,**

**ASHLAND, OHIO**

is cold-blooded. If he dies young, there was a future for him; if he lives to an old age, he missed his calling.

"If he saves money, he is a grouch; if he spends it, he is a loafer; if he gets it, he is a grafter; if he don't get it, he's a bum. So what's the use? Life is one damn thing after another; but since you must tarry here for a while, you might as well make the most of it by sending Cranefield fifty cents for a year's subscription to WISCONSIN HORTICULTURE.

#### SUMMER TREATMENT FOR STRAWBERRY BEDS

Here are Mr. E. W. Sullivan's ideas about handling the one year old bed as given at the 1911 annual meeting.

"We think it is quite a mistake for people to plow under the old strawberry beds. It costs quite a lot to get a new strawberry bed started; I figure it costs about fifteen dollars for plants, and at least five dollars for setting an acre, and if the old strawberry beds are mowed and burned over, instead of being plowed up, I think it will be a great saving. I do not recommend burning all the mulching. At least I think it is a good idea when straw is as scarce as it has been this year, to take up at least one-half or two-thirds of the straw, and then there will be enough left to make it burn over. Burning a bed too hard is not good for it, but if you can just get far enough to go over and kill everything of a weedy nature, it cleans up the bed in good shape. Now, if you put those \$20 that you pay for plants and for setting into labor, cleaning up in first class shape, you will always get a better crop on an old bed than you will on a new one."

Weeds are a blessing and but very thinly disguised.

#### WHO WANTS A PEACH RANCH?

Perhaps you have an idea that a peach orchard in Texas is something very valuable, not to be compared with a Wisconsin fruit farm. We hold to the truth of the last part of above sentence. As proof note the following advertisement which appeared in a Wisconsin weekly paper last April.

#### PEACH ORCHARD FOR SALE.

I have a peach orchard for sale. About one mile from the Court House at ———, Texas. The county seat of ——— county. There are 100 acres in the tract, 5,000 Elberta peach trees in their prime. The peach tree cover 50 acres of the land, 25 acres of open farm land, 25 acres of good timber. Has a fine elevation and overlooks the city of ———. A small two roomed house on place. Good water and well fenced, price \$3,500. Terms, one-half cash. Balance on terms to suit purchaser. This property must be sold soon. Will allow buyer railroad fare to close at once.

Seventy dollars an acre for a bearing peach orchard and fifty acres of good land with improvements thrown in! If this party succeeds in selling it will be a golden opportunity for some Sturgeon Bay party to sell him five or ten acres of real good cherry land. Such a purchase would not put the Texas man seriously in debt.

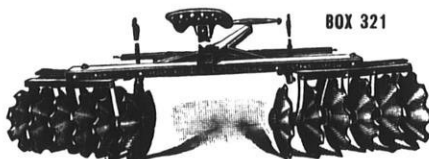
Stir the soil, in orchard, garden and flower bed.

After June our fight with weeds and insect pests will have passed the worst stage but cultivation should be continued.

Q.—What is the best variety of late pear to grow in southern Wisconsin?

A.—Keiffer or Anjon. Ans. by W. J. M.

### CLARK'S CUTAWAY HARROWS ARE WONDERS



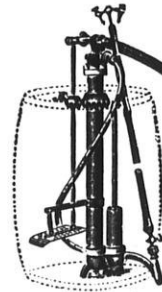
E. G. MENDENHALL,

GENERAL DISTRIBUTING  
Agent for the West

Two-Horse Single Action Cutaway Orchard or Farm Harrow with Extension Head, Reversible; also One Horse Size. Also Double Action Steel Jointed Pole Cutaway Harrows. (Can be Extended.) For Orchard and Farm. Send for Catalogue. If a Fruit Grower, send for our New Catalogue of Fruit Growers' Supplies.

KINMUNDY, ILLINOIS

## Get The Best



A Good Spray Pump earns big profits and lasts for years. THE ECLIPSE is a good pump. As practical fruit growers we were using common sprayers in our own orchards—found their defects and invented the Eclipse. Its

success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

**MORRILL & MORLEY**  
Benton Harbor, Michigan

**FOR SALE**—Apples of New York, by Beach. 135 colored plates. 2 vols. Albany, 1905; \$7.50. Grapes of New York, by Hedrick. 100 colored plates. Quarto. Albany, 1908; \$5.00. Send for fine copies to **John Skinner, 44 N. Pearl street, Albany, New York.**

## WANTED

To communicate with an expert apple packer, one who has had some experience in packing box apples. A good opening for the right party, Fall of 1911.

**Write F. Cranefield, Sec.**  
**Madison, - - Wisconsin**

Send For **PANSY GUIDE AND CATALOG**  
... Our ...  
of Flower Seeds and Plants  
**FREE TO ANY ADDRESS**  
**WILLIAM TOOLE & SONS**  
**PANSY HEIGHTS, BARABOO, WIS.**



**25 HARDY PLANTS**  
**for \$1.00 POSTPAID**

Beginners' Collection of hardiest and finest old favorites and best new sorts. All strong, healthy 1 yr. plants. Fill brilliant bloom from spring until fall.

**Special Offers—Postpaid**

10 Plants, New Hybrid Long-spurred Columbine.....	\$1.00
10 Plants, New Dwarf Columbine, including New Golden-leaved.....	\$1.00
10 Plants, New Pink Forget-Me-Not, "Dornraschen".....	\$1.00

**Order Now.**  
Write for free catalog.  
A. F. BOERNER, Nurseryman, 42 North 3d, Cedarburg, Wisconsin.

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

Vol. I

July, 1911

No 11

## PORT WING

Port Wing is on the south shore of Lake Superior about halfway between Bayfield and Superior. It can be reached by boat, afoot, horseback or stage. The nearest railroad point is Iron River, twenty miles south; population somewhere between 400 and 500, at a guess; two or more churches, fine school buildings, a hotel sign, a harbor and a wide-awake lot of inhabitants.

It was one of those choice October days that poets write about when we made the trip from Iron River and it was one long to be remembered. We heartily recommend this trip to all who love nature unmarred by the hand of man. Homesteads average less than one to the mile and these only on the highway. It is a rolling country and from the crests of the higher hills one can look for miles and miles in every direction and see nothing but ruin and desolation, a wilderness of pine stumps, blackened birch trunks and brush, the ghastly wreck left by the lumbermen and forest fires. One hillside away off in the southern distance, resplendent with the autumn coloring of red oak, inspired in every member of the party much the same feeling as does the American flag to the returning traveler; we wanted to cheer, for we were all from the land of the red oak.

There is nothing which so impresses one with the greatness, the immensity of the state of Wisconsin as these millions of acres of virgin land in the northern counties. The rich farms, the barns, silos and air of

prosperity of the southern counties tell of the present, but here in the north is the future of Wisconsin.

Here in northern Bayfield county alone is the potential wealth of a kingdom. The landscape may be picturesque and desolate but underfoot are some of the richest soils in the world untouched by the plow.

But this story promised in the beginning to tell about Port Wing. We had heard a rumor about apple trees at Port Wing and hence the trip. About two miles out of town is the



A Snap Shot. Mr. Braun and the Trial Orchard Com., Oct. 1910

homestead of Chas. Larson. Mr. Larson, like everyone else up there, believes in raising apple trees from seed and has dozens of thrifty seedlings some fifteen years old. These trees have borne heavily for years, as shown by the drooping branches. Apple trees in this climate waste no energy in surplus wood growth, the trees are squatly, round-topped and even as young trees covered with fruiting spurs.

Mr. Larson's seedlings bear at five years old and at eight bear heavily. One twelve-year-old Yellow Transparent tree bore eleven bushels of fruit in 1909. In and around Port

Wing are about five thousand fruit trees, mostly planted within two or three years.

Eben Olson has 100 cherry and 900 apple. Chas. Johnson about 1,000 apple and a small nursery. G. A. Braff has a nice bearing orchard and apple and cherry trees are found in nearly every dooryard.

Good sense has been shown in the selection of varieties, Okabena, Longfield, Duchess, Wealthy, Wolf River, Yellow Transparent, N. W. Greening in apples and the two standard cherries, Montmorency and Early Richmond.

This is a natural fruit country. The trees are all thrifty, sound and vigorous. The soil is not the heavy red clay of the Superior section but a lighter clay loam, perfectly adapted to fruit growing.

Some day a railroad will connect Superior, Port Wing, Cornucopia and Bayfield, land will be cleared in quarter section farms instead of five-acre patches and apples and plums planted by the hundred thousand.

The Lake Superior shore line from Ashland north and west to the west line of Bayfield, where we encounter the red clay, will some day, and soon, southern shore of Lake Ontario in be a great fruit belt like that on the New York.

## ONION BLIGHT OR MILDEW

A serious disease of onions in eastern states is the blight or downy mildew, which usually makes its appearance about mid-season or when warm wet weather prevails. It causes a blighting of the leaves of the plant. Many growers are familiar with its appearance.

As this disease does not disfigure the bulbs or destroy them as smut and maggots do, growers are not likely to consider it a serious trouble; besides the disease does not often become serious until the onions have made considerable bottoms and usu-



ally the grower is deceived as to the amount of injury done. Of course, the growth of the leaves is directly affected but the nutrition which should have gone to the growing part of the leaf and bulb is largely used up by the fungus. The leaf is the important part of the onion during the growing period. No grower would expect bulbs to form on plants from which the leaves were removed as fast as they were formed. Neither would he expect onions to attain the proper size if the tops were cut away when the bottoms were half formed. This is what takes place when onions are severely blighted. The entire working part of the onion is disturbed and destroyed and the growth of the bulb must of necessity stop. A new growth is then necessary and the energy of the plant is directed to that while growth of the bulb ceases.

Usually little or no increase in the size of the bulb takes place after a severe attack of the blight. If the attack comes after the bulbs are half formed this means the loss of one-half the crop.

How to recognize the disease upon its first appearance is one of the important things for the grower. After the fungus has spread over the entire field and the onion tops are dead or dying, it is no difficult matter for anyone to see that something is wrong. The rapidity with which the disease spreads demands that there be some sign by which we may discover the disease in its earliest stages and so be better enabled to cope with it. Unless the crop of the previous year had been badly infested the fungus first appears on a few onions in one or more parts of the field.

The first "muggy" weather of July or late June should be the signal for a general looking over of the fields to discover any infected plants. The examination is best made in the early morning while the dew is still on the onions. A diseased leaf is then easily discernible at a considerable distance. Parts of it will appear of a peculiar violet tint, due to the furry covering of the fruiting parts of the fungus. These will stand out very abundantly and plainly on account of the moisture. Later in the day

the parts are more or less collapsed by the drying of sun and wind, and the diseased leaf is more difficult to see.

Aside from this peculiar furry violet appearance, the affected leaf is at first like the healthy ones about it. By the second day it has begun to lose its bright color, being paler or even yellowish in spots, where the disease first started. It will now be mouldy or furry throughout most of its length, and by the third or fourth day collapsed and broken over. The fungus usually appears first on one side of the leaf about midway between its tip and base, from which it spreads rapidly through the entire leaf.

Unless the weather is especially favorable the disease will not spread over the field rapidly, but areas several feet in extent will first be evident, here and there through the patch about the places which were first attacked. After several days the affected onions begin slowly to recover. New leaves appear. These replace the affected ones which are drying up. If weather conditions are favorable to the onion this new growth is rapid and often in a week the field appears almost as thrifty as ever.

If the first attack comes late in the season the onions will likely never recover at all. If weather conditions remain favorable to the fungus the new growths are affected as fast as they mature. Young onions and rapidly growing leaves, however, are not so liable to infection. Leaves which have reached maturity or those weakened by breaking or by the ravages of thrips seem most easily infected. This accounts for the rather late appearance of the fungus. Apparently onions are the most susceptible about the time the bottoms begin to form, after the leaves are for the most part done growing and are devoting their energies to the making of the bulb.

Where the blight is only present in spots a thorough spraying with 3-6-50 Bordeaux of these spots, to kill the spores in order to prevent infection of uninfected areas, is strongly recommended. A single application, however, will not be sufficient. The number of applications and the time

at which they should be made depend upon weather conditions almost entirely. If the weather is clear and sunny with plenty of breeze and no dew at night the disease will not spread and a second application may not be necessary. However, if damp, cloudy weather prevails spraying should be done at least every ten days. The new growth should always be sprayed as soon after it has attained some size, no matter what the weather may be.

It is not well, however, to wait for the blight to appear before spraying, if the field blighted the previous year. Spraying should begin the latter part of June or the first of July and be continued throughout the season. Two things must be emphasized in regard to applying the spray. First, thoroughness; every side of the leaf must be covered. Second, force; the mixture must be applied with sufficient force to make it stick to the smooth surface of the onion leaves. A nozzle that gives a fine



Wealthy Lake Geneva Orchard planted May 1909, photo August, 1910. Heavy Corn Crop on one-half of land between trees

spray should be used. A barrel sprayer operated by hand and with two leads of hose will fill most requirements. — *The Market Growers' Journal*.

### THE NEW INSECTICIDE ACT

Assembly Bill No. 484, introduced by Hon. Wm. Knight, is now a law, Chap. 325, Laws of 1911.

The main features are shown by the following extracts:

"It shall be unlawful for any person, firm or corporation to manufacture or compound within the state of Wisconsin any insecticide, paris green, lead arsenate or fungicide which is adulterated or misbranded within the meaning of this act; and any person, firm or corporation violating any of the provisions of this section shall be guilty of a misdemeanor, and shall, on conviction thereof, be fined not to exceed two hundred dollars for the first offense, and on conviction for each subsequent offense be fined not to exceed three hundred dollars, or sentenced to imprisonment for not to exceed one year, or both such fine and imprisonment, in the discretion of the court. \* \* \*

"It shall be unlawful for any person, firm or corporation, to introduce, import, ship, deliver or receive into this state, or to ship or deliver from this state, any insecticide or fungicide which is adulterated or misbranded within the meaning of this act; and it shall likewise be unlawful for any person, firm or corporation to sell or offer for sale, or deliver for pay or otherwise in the state, any such adulterated or misbranded insecticide or fungicide in any form whatsoever. Any person, firm or corporation violating any of the provisions of this act shall be guilty of a misdemeanor, and shall on conviction thereof, be fined not to exceed two hundred dollars for the first offense, and on conviction for each subsequent offense not exceeding three hundred dollars, or be imprisoned not exceeding one year, or both in the discretion of the court.

"No dealer or agent shall be prosecuted under the provisions of this act when he can establish a guaranty signed by the wholesaler, jobber,

manufacturer or other party residing in the United States, from whom he purchased such articles, to the effect that the same is not adulterated or misbranded within the meaning of this act, designating it. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such articles to such dealer or agent, and in such case said party or parties shall be amenable to the prosecutions, fines and other penalties, which would attach in due course to the dealer or agent under the provisions of this act.

"The term 'misbranded' as used herein shall apply to all insecticides, paris green, lead arsenates or fungicides, or articles which enter into the composition of insecticides or fungicides the package or label of which shall bear any statement, design or device regarding such article or the ingredients or substances contained therein which shall be *false or misleading in any particular*, and to all insecticides, paris greens, lead arsenates or fungicides which are falsely branded as to the state, territory or country in which they are manufactured or produced."

The omitted sections define pure arsenate of lead, paris green, etc., in technical terms.

The "misbranded" clause is quite comprehensive and if enforced will rid the state of such quack dopes as described by Prof. Moore.

### 201 AND 207

These are the numbers designating two recent bulletins by Prof. J. G. Moore that every member should read. Number 201 is entitled *Planting the Commercial Orchard*, and treats in detail the subjects of selecting the site, planting plans, laying out the orchard, selecting trees, ordering nursery stock, care of trees on arrival, time for planting, top-pruning, etc.

The chances of success in Wisconsin are summarized as follows:

"Good orchard management is necessary to secure profitable returns from fruit trees. Prevalence of insects and disease require that special attention be given to the trees to produce a good quality of market-

able fruit. Orchards may be very profitably conducted in connection with other lines of farming provided due attention is given to the demands of this crop for cultivation, fertilization, pruning, spraying and intelligent methods at harvest time."

The title of Bull. 207 is *The Management of a Bearing Orchard* and deals with soils, fertilizing, pruning and spraying. These subjects are all handled in a commonsense way that will appeal to the average reader.

While the author still holds to the "farmer-orchardist" idea and admits that "four-fifths of the farm orchards of the state are operated at a loss" he strikes hard at the practice so commonly followed of using the orchard for farm crops. "An orchard should be an orchard, not a grain or hayfield and an orchard combined. In the latter instance, neither crop has half a chance. Either the orchard should be given the care and attention which is necessary to make it a paying proposition, or it had better be discarded and the land used for some other purpose."

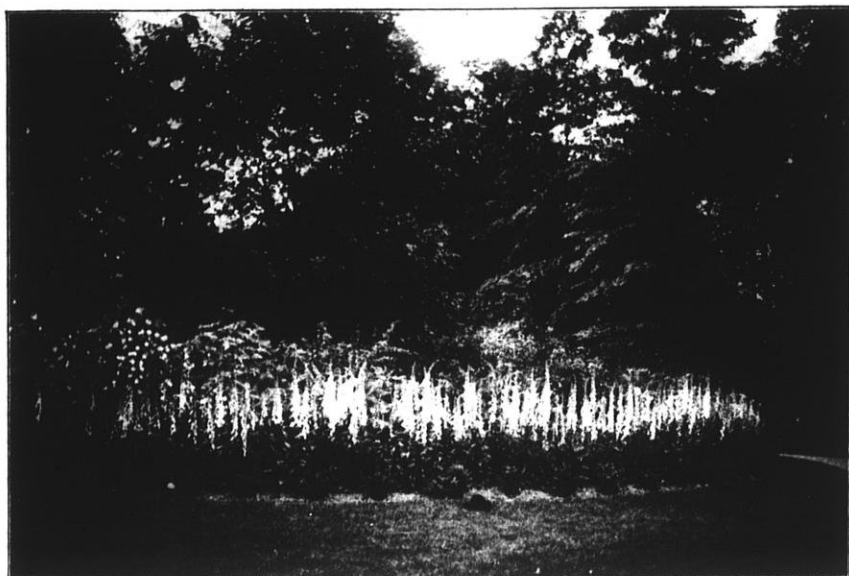
To all of which we say Amen!

Both are what is known in Experiment Station parlance as "popular" bulletins and as such are readable, interesting and valuable to the fruit grower. Copies may be had on application to Director Agr. Exp. Station, Madison.

### FRUIT NOTES FROM DR. LOOPE

I may be late in giving my fruit pointers but your (and other prophets') forecast of bumper fruit prospects, at least in this section, is "way off." Apples did not blossom profusely and the "blasted" wet, hot weather seriously interfered with the setting of fruit and a blossom blight did the rest.

In Winnebago county a 10 per cent crop is a fairly high estimate of the outlook. In my own orchard I will have no Wealthy or Duchess apples. McMahan and Longfield are a very light crop. Whitney are better and show half a crop. Trees are looking fine with heavy foliage and good growth. With the favorable weather and plentiful moisture fruit buds ought to be well matured this year and I look for apples next year. I



A Border of Foxglove

attribute the unfavorable conditions this year to the drought of last year which prevented fruit buds attaining vigor sufficient to come out strong enough to perfect the small apple this spring and limited the formation of many buds.

The strawberry crop promised well early in the spring, since no frosts occurred that damaged the bloom, but the blooms lacked vitality and blasted largely and the crop is cut in half for that reason. The stand of plants last year except in favorable locations was very poor on account of drought. These conditions prevail in all the sections about here. T. E. LOORE.

#### A PERSONAL MATTER

I own no stock or shares in any orchard or fruit company in Wisconsin or elsewhere. I am not interested directly or indirectly in the ownership or management of any orchard or fruit company, never have been nor ever expect to be as long as I hold my present position.

Any statements, insinuations or intimations to the contrary are absolutely without foundation.

Members of the State Horticultural Society and others are welcome at any time to my opinion regarding any section of the state but must not expect me to advise as to investment in any particular scheme. I intend to do all I can to advance the fruit growing in-

terests of the state but do not feel that advice as to business investments is any part of my duties.

FREDERIC CRANEFIELD.

Madison, Wis., June 25th, 1911.

#### INCREASE IN VALUES

A report from the federal government credits Wisconsin with an increase of \$601,000,000 in farm values in the past ten years.

It would be interesting to know how much of this is due to the rapid development of fruit raising.

A concrete example will shed some light on the situation. Farms in the vicinity of Gays Mills are rated five dollars an acre higher than in 1909, parcels lying close to the trial orchard have doubled in value and the end is not yet.

#### BRIEF DIRECTIONS FOR SPRAYING

The following item from the Viroqua Censor is worthy of the attention of every fruit grower. We would like to get acquainted with this man Butt, he has original and striking ideas, also a well developed sense of humor.

#### SPRAY YOUR APPLE TREES.

It's as simple as spraying potato vines, and as necessary. Arsenate of copper (paris green) in solution kills potato bugs, and arsenate of lead kills 90 per cent of the apple insects, insuring a 90 per cent crop instead of a 10 per cent crop. Spray twice, first

while blossoms are falling, then 3 weeks later, also August 1st.

Don't read 200 pages on the subject and give up in disgust; it is easy. I bought a \$3 spray to use with a pail. Wet the blossoms with some force—a sprinkler will do, and if you don't want to buy or borrow a spray, get a tall man with teeth one-eighth inches apart and let him squirt it on; any way to get the poison solution near blossoms just as apples setting.

W. E. BUTT.

#### CREDIT LIST FOR MAY AND JUNE

Names of members who secured new members during May and June.

Jno. M. Kegel, 1; B. Hahn, 2; Louis Pierron, 1; A. Gudmundson, 2; E. S. Hildemann, 1; F. J. Wacker, 1; Melvin Haines, 3; Dr. Chas. L. Babcock, 3; G. J. Schneider, 1; Max Rohr, 1; A. Gropper, 4; S. T. Learned, 1; F. Simon, 1; Louis Mayer, 2; D. E. Bingham, 1; W. H. Marsh, 1; H. F. Marsh, 1; Ole T. Allikson, 2; E. W. Sullivan, 1; A. Bungener, 3; Peter Kurz, 1; E. W. Fenlon, 1; Irving Smith, 1; F. A. Vaughn, 3; K. Borgeson, 2; L. J. Tucker, 1; W. G. McKay, 1; S. F. Harris, 1; H. P. Lochemes, 1; J. C. Reese, 1; John L. Schultz, 2.

We have now almost 1,600 paid members, we ought to have at least 2,000 by September. Who will help? Four hundred members can turn the trick by sending in one new member each.

#### AT MARINETTE ALSO

One of the largest apple orchards in northern Wisconsin is being platted by C. L. Cook, the millionaire farmer of Marinette. One hundred acres have been planted to apples, 40 acres are now being planted and a total of 260 acres is being laid out for planting during the next year. This will make a total of 400 acres in apples, divided into some five separate orchard plats, each being planted to a different variety of apples.

The new double-column style is for the purpose of saving a little money, just how it will not be of interest to explain. It will not be a regular feature, only for two or three more numbers.



**A MONSTROUS HUMBUG**

PROF. J. G. MOORE.

That the control of insects and fungus diseases is one of the paramount factors in successful fruit growing has become so widely acknowledged that occasionally much injury is caused by growers following directions received in pamphlets put out by spray material manufacturers which are incorrect and in a great many cases are nothing more or less than pure fraud; it being evident that with very slight attention the facts could be obtained which would show the publisher of such a document that they were in error. Under such conditions there can only be one conclusion at which a person can arrive in reading such "manuals," and that is that the publisher has lost all sense of proper dealing and is simply trying to further his own interest at the expense of the uninformed. There has recently been sent out through the mails a little book entitled "A Pocket Manual on Plant Diseases." This book is sent with the compliments of the James Good Mfg. Co., manufacturers of whale oil and disinfecting soaps. Careful scrutiny of its pages reveals the fact that a great many of the treatments recommended are worthless and that many of the statements are incorrect.

This little pamphlet having been called to the writer's attention, he took the matter up with Prof. L. R. Jones of the Department of Plant Pathology of the University of Wisconsin, and with Prof. J. G. Sanders of the Department of Economic Entomology in order to verify his own opinion relative to the matter. Due to the fact that this publication is a little bit the worst of anything which has come to the writer's attention, I trust that space may be given for bringing to the attention of your readers some of the discrepancies promulgated in the "Manual."

The materials which are recommended are "caustic potash whale oil soap No. 3" and "caustic potash whale oil tobacco soap No. 6." Although there is no formula given for the composition of these materials one would naturally suppose that the former is composed of potash and whale oil soap, and that the latter has in addition to the other materials a decoction of tobacco. This opinion is further strengthened by a question which is propounded in the latter part of the book relative to the advisability of covering trees with poisons. In the composition of these materials evidently then no poison is used, neither is there any indication that a fungicide has been incorporated. This would leave these spray materials then without any ingredients for the control of two of the more important classes of pests, i. e. insects with chewing mouth parts, and fungus diseases. With this in consideration, one can scarcely conceive how the manufacturer can recommend these materials "for the control of all insects and

**HOW INSECTS AFFECT OUR WELFARE**

PROF. J. G. SANDERS.

The importance of insects as a class with regard to their economic status in connection with fruit growing, farming, plant propagation, stock raising, also in their relation to the household and public health, has become sufficiently impressed upon the public mind so that no apology is needed in offering a few statements concerning this group of creatures.

The popular conception regarding insects for the most part is that they are practically all injurious and this idea has taken such firm hold in the minds of many that the measures undertaken for the control of a noxious pest have left out of consideration entirely, the fact that some of the insects perhaps associated with this pest are beneficial.

**RECENT ABUNDANCE OF INSECT PESTS.**

Wherever modern agriculture with its attendant methods has become established, there we find injurious insect pests almost universally distributed. This question is frequently propounded: "Why is it that there are now so many more injurious insects than occurred in the earlier periods of history." There are two or three answers to this query, the less obvious of which is that in this day we are noticing more particularly the damage and destruction caused by these injurious pests. But the more important reason for this condition is that we have obstructed and altered nature's methods of plant growth where certain plants are scattered here and there among other different forms of plant life; and according to modern agricultural methods we have planted in large plats or fields a single crop in considerable area. In the natural condition of the growth of plants, where they are considerably scattered among other vegetation, it is necessary for any insect feeding upon this particular plant, to go in search of its food, which may or may not be discovered by the young larval stage. On the other hand where a large exclusive area of the same plant is under cultivation and care, it is only reasonable to suppose that we are assisting in every way possible the propagation of any particular insect which naturally lives upon that plant. Since we have placed the natural and preferred food of any insect before it in the most advantageous position, the insect consequently multiplies to a marvelous extent often times ruining a large percentage of the crop.

**INTRODUCED INSECTS DANGEROUS.**

Another reason for the unusual number of insect pests at the present time is the introduction from foreign countries of numerous insects which have found our climate most agreeable, perhaps more agreeable than the original habitat and in consequence these insects have multiplied so enormously that they are ranked as pests of prime importance. In the early history of this country with a restricted area of cultivated land made up of small fields and a small diversity of crops and with limited commercial relations with other countries, we suffered little



*parasites that infest plants of any kind."* In this case it will probably be well to take up more in detail some of the statements made in this book.

The "Manual" gives the impression of being authoritative in that there are frequent quotations from reliable sources. Bailey's Encyclopedia of Horticulture is frequently quoted, and the quotations so far as the writer has been able to detect are correct. However, after the quotations have been made, the writer of the manual continues to make statements and draw inferences which are not warranted by the quotations which he cites. On page four incorporated in a paragraph which is seemingly a quotation, is the statement that mildews are checked by flowers of sulphur or its compound, or by whale oil soap. Prof. L. R. Jones states that after repeated trials with whale oil soap he finds no fungicidal value whatever in connection with the control of mildews. It would appear, therefore, that the person who attempts to control mildew by the use of one of these materials would be highly disappointed. On page seven, in speaking of the codling moth, the recommendation is to spray as soon as the last petals fall with Number 3 soap, three or four ounces per gallon. As previously quoted this material apparently contains no poison, and if it does not is practically worthless so far as the control of the codling moth is concerned, as the adult insect lays its eggs on the exterior, and the young larva eats its way into the fruit. The spray material could not be used sufficiently strong to kill the eggs without serious injury to the fruit, and the young codling moth would not be injured unless the spray material was applied at the exact time when he was burrowing into the fruit, because once inside, this contact insecticide could not possibly kill the larva.

As a further example of the inaccuracy of the manual, on page 10 in speaking of the elm tree beetle, the following suggestion is made, "band the trees with a sticky substance to prevent the wingless female from ascending." The writer of this paragraph shows considerable ignorance relative to the pest which he is discussing, as the female of the elm tree beetle is not wingless. Therefore the banding of the trunk would in no way keep the female out of the top of the tree. While this quotation is taken from the Encyclopedia of Horticulture, it shows that the person who wrote the manual is not up to date on his entomology. In connection with this same paragraph, it is interesting to note that in citing the reference it is made to appear that the quotation from the Encyclopedia includes the recommendation to spray with Good's caustic whale oil soap No. 3. While this would probably not fool a great many people, yet undoubtedly some would take the recommendation more quickly because it seemingly is taken from the above source.

from attacks of foreign insect pests. There are records as far back as the beginning of the 18th century of several insects which caused considerable destruction and devastation, but such instances are comparatively rare.

Of the hundred or more insects which might be ranked as of prime importance in this country, more than one-half are introduced species. It is a curious circumstance likewise, that a majority of these important introduced pests have come to us from the East, while but very few have been introduced by way of the western coast. There are potent reasons perhaps for this condition since commercial relations have been established for a much longer period with neighboring countries across the Atlantic than with the countries across the Pacific. Then, too, the ocean trip across the Atlantic is very much shorter, thereby affording more opportunity for insects to be transported in living condition.

#### A RECENT SCIENCE.

Economic Entomology as a science, is of comparatively recent date. Systematic Entomology which deals with the study of species of insects and their inter-relations dates back for several centuries, but Economic Entomology which treats of insects in their relation to agriculture and horticulture had its earliest inception about 1800 when Professor William Peck published several articles concerning the control of insects in the "Journal of the Massachusetts Agricultural Society."

#### IMPORTANT ADVANCES.

However, the most important step was taken to promote Economic Entomology and its resultant benefits to the agricultural communities when the so-called "Hatch Act" passed congress, under which grant agricultural experiment stations were established in all of the states. The work in experiment stations and agricultural colleges along entomological lines has progressed with considerable rapidity, and with a very definite purpose in view; namely to investigate the life history of the various insect pests with a view toward devising methods of combating and controlling these enemies.

#### SPRAYING.

It may be of interest to the people of this society to know that the earliest efforts at spraying, a practice which is so generally used as a control measure at the present time, was in its experimental stage as late as 1872 to 1876 when the spread of the Colorado Potato Beetle into the eastern states provoked so much experimental work in an attempt to determine the proper remedies to control this "terrible pest." In the light of our present knowledge of spraying and of arsenical poisons, we do not consider the Colorado Potato Beetle an insect difficult to control.

#### INSECTICIDES.

No truer statement was ever made than that by the great poet Tennyson, when he said that "Science moves slowly on step by step." In more recent years we have gradually determined the advantages of one insecticide over another, the inferior ones gradually falling into disuse, while the newer and more efficient

On page 17, in discussing pear blight, it is recommended to spray with No. 3 soap in the spring or summer as a preventive against this disease. The best authorities are unanimous in their opinion that the application of whale oil soap or of potash is not a preventive of this disease, and has no effect whatever in preventing it. Although the statement is made that both of these spray materials are recommended for all parasites that infest plants, they are absolutely worthless in the control of the bacterial diseases, and the person who sprays for apple or pear blight with either of these materials is simply wasting his time and his money.

These statements are merely a sample of the advice given out in this "pocket manual." Unless the authorities on the subject of plant parasites are entirely wrong, then the recommendations of this pamphlet are not only misleading, but seemingly wilful attempts to deceive the person who is desirous of protecting his plants against the numerous pests which infest them. Perhaps it would seem to be presuming too much to assert that such an attempt is wilful, but when one considers the fact of the comparative ease with which the desired information can be secured from reliable sources, then it would seem that there is no excuse for such statements, as appeared in the "pocket manual," being made.

It is not the intention of the writer to condemn these spray materials entirely, because they are valuable for the control of certain insects when properly used. Whale oil soap tobacco decoctions and potash may be used to kill sucking insects. The strength of the material used will depend primarily on the insect to be combatted, and the plant which it is infesting. Caustic potash, however, is seldom used as an insecticide because it has the same action as lime in the killing of insects but is more expensive. The claim made for this material as a fertilizer is probably correct because potash is a valuable ingredient in the soil. However, it would seem to be the height of folly to purchase plant food in the form of an expensive spray material when the same elements of plant food could be secured infinitely cheaper in commercial fertilizers.

On page 23 the author propounds this question, "Why then should you cover your trees and herbs and fill the soil with poisons; why make your orchard an unsafe place for the stock to graze?" The inference here is that in the use of poisons for the control of insect pests the user is in danger of causing some evil effects to his trees by the incorporation of poison into the soil and to his stock if they are pastured in the orchard. It has never been proved that the use of poisonous insecticides cause any injury to the plants by inoculation in the soil, therefore the danger implied in the question is not present, and the orchardist need have no fear from the use of the supposedly injurious poison.

remedies are rapidly accepted by agriculturists. It is difficult to realize that there was a time, not so many years ago, when the well known Paris Green was a substance whose value as an arsenical poison for the control of chewing insects was unknown. For many years that arsenical was our most important assistant in insect control but now even that has given away to the newer, more satisfactory and more efficient arsenate of lead. In fact, this latter substance I feel sure in a very few years will have entirely supplanted Paris Green as an arsenical insecticide. In the first place it is somewhat cheaper, but its more important quality is its great adhesive qualities when applied to the foliage of trees or plants. Quite severe rains have but slight effect in removing this arsenical from foliage so that a single application of arsenate of lead will remain to kill any invading chewing insect for a considerable period, during which time it would be necessary to spray with Paris Green or other arsenical insecticide perhaps two or three times to gain the same control.

#### LOSSES FROM INSECTS.

Insects as a class, and the loss to the various industries of this country due to their ravages, are not fully appreciated by the average individual and it is frequently necessary to resort to figures to impress upon the public mind the enormous pecuniary loss from insects which this country annually sustains.

It has been stated by competent government entomologists that at a very low estimate the annual loss occasioned from insect damage in the United States is vastly more than the total annual cost of our army and navy departments with their seemingly enormous expenditures in equipment and fighting machinery. It was not unusual in past years to experience an annual loss estimated as sixty million dollars due to the ravages of a single species, the well known "Chinch Bug." The "Codling Moth" or "Apple Worm" has been recently estimated, and a very low estimate too, to incur a loss of more than twelve million dollars annually in the United States, which estimate does not include the expenses of labor, spraying apparatus, and poisons used against this pest which certainly will add three or four million to the charge against this insect in the apple orchards of the United States.

The "Plum Curculio," a pest which ranges very near to the "codling moth" in point of injury to our fruit orchards, causes likewise an enormous loss, running into the millions. It is almost impossible to estimate the enormous damage occurring in the southern cotton fields which is chargeable to the ravaging of the cotton boll weevil and the cotton boll worm.

#### PLANT PESTS.

As destroyers of plant life, it is safe to state that almost every cultivated crop is affected frequently by scores and sometimes hundreds of species including thousands upon thousands of individuals. It is surprising to note that more than 280 species of insects have been recognized as enemies of the apple; more than 80 of clover and more than 70 of the ordinary sugar beet. Considerable more than 200 pests are known to affect corn and equally large numbers of species are known to infest the vine, orange and several other crops.

# Wisconsin Horticulture

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Remit to Secretary W. S. H. S.  
Madison, Wis.

### NOTICE!

The next (Summer) meeting of  
the Society will be held at Oshkosh  
Aug. 16-17. A program is being  
prepared and will be printed in  
the August number. Sessions will  
begin Wednesday noon Aug. 16  
and continue through Thursday  
including an excursion or field-day  
to visit near-by orchards and gar-  
dens. Begin now to make plans  
to attend. Everybody welcome.

Extra copies of this issue will be  
sent to members for distribution. Ap-  
ply early.

### LET US S(PRAY)

One more application of Bordeaux  
and arsenate of lead in the apple or-  
chard. Third or last week of July.

Spray tomatoes with Bordeaux if  
troubled with leaf diseases. May  
also help keep fruit rot in check.

Spray melon, cucumber and squash  
vines with Bordeaux every two weeks  
to prevent blight and other fungi.

Keep your eye on the Dudley ap-  
ple, it's a "comer." In many ways  
it excels the Wealthy.

Don't call it North Star, say Dud-  
ley always. The true North Star is a  
Patten seedling, which dropped out of  
sight years ago.

The credit list was overlooked last  
time but appears this month in full  
to date of issue. Would you like to  
have your name here? It is our  
Honor Roll.

Note what Prof. Moore has to say  
about the "no good" whale oil soap  
humbug. Our only exception to the  
article is that it does not hit hard  
enough. Prof. M. knows that the  
pamphlet is a confounded humbug, a  
fake and a deliberate attempt to de-  
ceive but failed to say so. We re-  
lieve him of the necessity.

Squash bugs are of two kinds, the  
well known "stink-bug" and the kind  
that doesn't. One is as bad as the  
other, or worse. Prof. Sanders has  
kindly consented to tell us what to  
do, and say.

In one way or another it will cost  
more money after next September to  
be a member of this Society and a  
subscriber to this magazine. Fifty  
cents is not enough. Hurry along  
the membership, both renewals and  
new ones.

How about your share? Some of  
our members take a real interest in  
the Society and show their apprecia-  
tion of the work we are doing by  
sending in new members. How about  
your new name for the list?

Back numbers cost ten cents each  
now with a probability of a sharp  
advance soon. All may be had ex-  
cept January.

We point with pride to our adver-  
tising columns. You will do well by  
patronizing these firms.

The *Agricultural Gazette* of New  
South Wales names McIntosh Red  
as one of the best of new apples and  
gives date of blossoming as Sept. 28,  
date of ripening March 18.

### THE 1911 REPORT

Our Annual Report containing  
proceedings of the Oconomowoc and  
Madison meetings will be out,—  
sometime.

Patience is a virtue especially to  
be desired when the legislature is in  
session, for then the state printer  
has more troubles than we have.

### CHEERFUL WORDS FROM GAYS MILLS

Both the trial orchard and our  
spring setting are looking fine. The  
Wealthy trees in the trial orchard are  
loaded with apples. All of the other  
varieties have some fruit, except the  
N. W. Greenings. Yesterday I  
picked one quart of Early Richmond  
cherries from trees a few days less  
than thirteen months from setting.  
This may not be much of a cherry  
story, but it has surprised a good  
many people to see those little trees,  
not more than three to three and a  
half feet high producing fruit.

By way of information as to what  
the Gays Mills Fruit Farm is doing,  
will say that we have cleared the  
ground (wood and brush) and set 27  
acres of apple trees, 1 acre plums,  
one-half acre grapes and 1 acre of  
strawberries.

Also built a berry house 12x24, a  
basement barn 20x32 and dwelling  
house 18x38 two stories high with  
basement full size, and drilled a well  
309 feet deep, with plenty of good  
water. On account of an extremely  
wet week, we were a few days late in  
spraying the trial orchard, but we  
gave it a thorough spraying and also  
succeeded in getting our neighbors  
to spray their orchards, and one of  
them will spray again soon.

Gays Mills, Wis. J. A. HAYS.

### Questions and Answers

Q.—Name best and hardiest flowers, roses and shrubs?

A.—See Annual Report.

Q.—What is the best variety of early pear to grow in southern Wisconsin?

A.—Bartlett or Clapp's Favorite.  
Ans. by W. J. M.

Q.—Are black cap raspberries hardy in northeastern Wisconsin? If so what variety is adapted for Oneida and Vilas counties?

A.—Black caps are hardy anywhere in Wisconsin. Gregg is a standard variety. Experienced growers always give winter protection.

Q.—Name six best commercial apples for planting on the clay bluffs on the Mississippi River 50 miles south of St. Paul?

A.—Duchess, Wealthy, McMahan, McIntosh, Fameuse and,—will somebody please name the sixth?

Q.—Name the three best hardy plums introduced during the last ten years?

A.—We do not know of any hardy plums introduced to general cultivation during the past ten years. It is now a well established fact that the Americana group of native plums including such varieties as De Soto, Forest Garden, Quaker, Hawkeye, Hammer, etc., are the most reliable. The Surprise probably a cross but generally called Americana is one of the best.

Q.—Wouldn't budding a tree be preferable to grafting?

A.—Root-grafted apple trees are generally considered best for Wisconsin. A short piece of root is used and roots soon start from the cion giving a tree on "its own roots." In the case of budded trees a portion of the trunk and all of the roots are necessarily of the "stock" and may not be hardy enough to withstand our climate.

Q.—Give a list of the herbaceous perennials best suited for northern Wisconsin?

A.—Listed from early to late blooming: Answer by W. J. Moyle.

April and May—Primrose (Officialis (cowslip), Viola (Double Russian), Phlox Subulata (moss pink), Bluebells, Mertensia Virginica (lungwort), Iris Pumila (dwarf —) Iris.

June and July—Papaver Orientale (Hardy Poppy), Pœnies (in variety), Dicentra Spectabilis (Bleeding Heart), Pyrethrum Roseum (Hardy Daisies), Dianthus Plumaris (June Pink), Hemerocallis Flava (Lemon Lily), Aquilegia (in variety), Convallaria Majalis (Lily of the valley).

August and September—Delphinium Formosum and Hybridum, Phlox in variety, Boltonia in variety, Hardy Asters in variety, Helianthus in variety, Solidago, Golden Rod in variety,

Q. How is the best way to establish alfalfa and what is best type of seed to start with?

A. Select field with good drainage. The soil must not be acid and the water table must not be less than four feet from the surface. Apply barnyard manure in fall at rate of

20 good loads per acre and plow. Begin cultivation at usual time in spring and continue until about June 10 to kill weeds. Then sow alfalfa seed at rate of 20 lbs. per acre without nurse crop. The previous cultivation will have eradicated the weeds so completely that the alfalfa will

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A Border of Hardy Shrubs



get a good start and thereafter weeds may be ignored. In a normal growing season a crop of hay may be cut the same year but in case of drouth or other unfavorable conditions it may be better not to cut the alfalfa the first year. In no case should newly seeded alfalfa be cut later than September first.

Montana grown alfalfa seed produced on non-irrigated soil is preferable for Wisconsin conditions.

PROF. A. L. STONE.

Q. The Boston ivy ornamenting the front of my home is being badly eaten by worms. What can I do to prevent the further spread of this pest?

A. Spray foliage with arsenate of lead in water, using one heaping tablespoonful of the paste to one gallon of water. Little children and bigger ones that are in the habit of chewing leaves must be warned to let the ivy alone. An onion will taste better and be safer.

Q. Is it a fact that mid-winter or late winter varieties do not mature their wood as early as "Fall or "Early Winter" kinds?

A. I do not recall any exception to an affirmative answer to above. However, there is quite a practical difference in the ripening of the wood of many kinds but the tendency seems to be toward uniformity in maturity of wood and fruit.

A. L. H.

Answers to following questions are by Prof. J. G. Sanders.

Q. What is the worm called that builds web nests in the fruit trees and what spray is used?

A. Reference is probably to the "tent-caterpillar." Prune out infected branches and burn nests. Or burn nests and caterpillar with bunch of rags or corncob soaked in kerosene attached to end of pole. Spray with arsenate of lead, 3 lbs. to 50 gallons of water.

Q. What brand of arsenate of lead has given you best results?

A. Can recommend the products of following companies: Grasselli Chemical Co., Milwaukee, Wis.; Dow Chem-

ical Co., Midland, Mich.; Vreeland Chemical Co., 50 Church St., New York City; Thomsen Chemical Co., Baltimore, Md.; Bowker Insecticide Co., Boston, Mass.

Q. Will lime sulphur wash prevent the spread and ultimately cure oyster shell scale in the apple orchard?

A. Lime-sulphur wash applied late in spring when buds are swelling will control this and other species of scale, but will not exterminate every specimen. It may be necessary to repeat the application in following year.

Q. I have been bothered with bark borers in my new orchard. I dug out those which I could find but in several instances trees had been girdled. What remedy do you suggest other than what has been done?

A. Whitewash acts as a deterrent against egg laying of the borers. Thin soft soap or whale oil soap fairly thick applied to trunks of young trees is a good preventive. Dig out larvae at work or kill them in burrows with flexible wire.

Q. Is lime whitewash any benefit to apple trees?

A. Lime whitewash when thoroughly applied in early summer is a good deterrent against the apple tree borers and bark beetles. If the brilliancy of whitewash is objectionable it can be easily toned to gray by adding lamp black.

Q. Will whitewashing the trees, say in spring and summer, prevent the bark beetle laying its eggs on same, or what preventative do you suggest?

A. See previous question.

Q. Can oyster shell bark louse and green aphid be treated successfully at one operation with lime sulphur spray and if so when is it best to apply it?

A. Spray to control both pests when the buds are swelling or as late as possible before foliage appears with lime sulphur, 1 part to 9 of water.

Q. Is there any remedy for the raspberry cricket?

A. This insect lays eggs in the young shoots of many shrubs and trees, frequently causing the affected

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Complete assortment of Fruit and Ornamental stock in all varieties suited to northern culture. A specialty of Hardy Shade Trees, Windbreak Stock, Evergreens (Coniferous), Deciduous Shrubs, Apples and Native Plums.

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Consisting of

### FRUIT, SHADE AND ORNAMENTAL TREES

Strawberries, Raspberries, Blackberries, Currants, Gooseberries, Grape Vines, Asparagus, Rhubarb, etc.

Ornamental and Flowering Shrubs, Vines and Perennials. Roses Evergreens etc.

If you would like to see a *really good Catalogue* we would be glad to send you ours. It has more than fifty pages and describes everything in the plainest language without any extravagant or overdrawn descriptions.

The Coe, Converse & Edwards Co.  
FORT ATKINSON, WISCONSIN  
Wisconsin's Largest Nursery

twig to droop and wither. Cut off and burn these twigs as soon in spring as discovered.

Q. How can I control leaf rollers on strawberries next spring?

A. Spray every two or three weeks after leaves unfold with arsenate of lead, 3 lbs. to 50 gallons of water.

Q. What is the most reliable treatment of "Hybrid Tea" rosebushes for the green aphid and for the black spot?

A. For green aphid spray bushes with 6 to 8 per cent kerosene emulsion or whale oil soap solution.

B. Bordeaux mixture should be used as spray for fungous diseases. Flowers of sulphur applied dry for mildew.

Q. What treatment has proven most successful for trees to prevent insects climbing them in spring and summer? Have tried binding with cotton and poison fly paper, "Oak-rum" and tree tanglefoot. Found the latter best of anything so far.

A. "Tree-tanglefoot" is perhaps the cheapest and most effectual remedy in this case. Many insects which are supposed to climb trees and feed on foliage do not have this habit, but instead hatch from eggs laid in the twigs by flying adult females.

Q. It was stated at the annual Minnesota Horticultural meeting of 1909 by an institute worker that the female plum curculio could not fly. Is this true?

A. Both sexes of the plum curculio can fly.

Q. Has the San Jose scale gotten a foothold in this state?

A. Unfortunately this serious pest has been found at several points in the state, but the entomologist has been able to eradicate it completely by prompt measures. It generally is spread by means of infested nursery stock.

Q. What is good to prevent the aphid and other small insects on plum trees?

A. Spray in late spring before leaves unfold with lime-sulphur solution, 1 part to 9 of water. For sum-

mer spray use 10 per cent kerosene emulsion or whale oil soap solution or nicotine solution.

Q. Did the cold spell of last April following the warm March, 1910, destroy or injure the oyster shell bark louse on apple trees?

A. A large percentage of oyster shell scale was killed by that unusual reversal of climate, but plenty were left for propagation.

Q. How can I eradicate the insects that injure radish and the roots of cucumber from the soil?

A. The radish and onion maggot are the larvae of certain small flies which lay their eggs on the young plants near the ground or on the ground near the plants. They are difficult to control. Burn all infested vegetables carefully to kill the developing larvae, but do not leave the larvae to continue development in vegetables lying about the garden.

A coating of whitewash maintained on the ground about the base of plants will act as a deterrent.

Q. Name best liquid preparation to keep mice from gnawing trees.

A. No known liquid preparation is absolutely certain. Perhaps best preventive is a coat of pure white lead and raw (unboiled) linseed oil, which will not harm trees. Never use impure lead or boiled oil as a mixture for coating trees.

Q. Is the nursery stock that is brought into the state inspected? If so, by whom?

A. The Wisconsin law prevents shipment in or into the state of nursery stock unaccompanied by tag bearing certificate of inspection by the official inspector of some state. Nearly all of our states have nursery inspection laws.

Q. Is the ground mole our friend or foe? Why and how?

A. The ground mole eats principally insects in various stages found in the ground, and rarely feeds on vegetable matter. From this standpoint beneficial, but a nuisance in lawns because of the unsightly burrows which are rapidly constructed.

## The Great Northern Nursery Co.

**Sells First-Class**

**Wisconsin Grown Trees**

**Our Trees Live.** We had an opportunity to compare 500 of our Wisconsin grown trees with a similar lot of an Eastern Nursery. At the end of the season only 52 per cent of the eastern grown stock was alive, while 95 per cent of ours lived and grew. Moral: buy home grown stock and avoid loss. Our trees are **HARDY**, and our stock is **HEALTHY**. A comparison will prove that our stock has not the willowy and watery soft growth of southern or eastern grown stock.

Every tree and shrub is packed entirely under cover, free from exposure to sun and wind.

**Great Northern Nursery Company, Baraboo, Wis.**

Write for Catalogue and Price - List.

**NOT THE BIGGEST**

**NURSERY PERHAPS**

**BUT WE ARE DOING THE BIGGEST BUSINESS**

We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

Attractive prices will be made to Market Gardeners and other large buyers of Nursery Stock.

**Our Catalog is an A B C Book**

in its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY**  
**Wauwatosa, Wisconsin**

**FORTY - TWO YEARS**

**The Jewell Nursery Co.**

Hardy Fruit and Ornamental  
Trees, Shrubs and Plants

**Lake City, - Minnesota**

**FIFTEEN HUNDRED ACRES**

**NOTES FROM DOOR COUNTY**

A recent meeting of the Board of Managers at Sturgeon Bay gave the editor an opportunity to certify the reports of recent developments in Door county. Over 100,000 fruit trees were planted in the county this spring and the bulk of these are within five miles of Sturgeon Bay, although some large orchards were set out as far north as Ellison Bay. As near as could be learned about two-thirds of the planting consists of cherry and one-third apple. One sixteen acre orchard consists wholly of Burbank plums. Several of these orchards are owned by stock companies.

The Sturgeon Bay Orchard and Nursery Company, the pioneer in Wisconsin in this movement, now has 110 acres, 40 apple and 70 cherry.

The Co-Operative Orchard Company 200 A cherry.

The Reynolds Preserving Company 80 A cherry, 45 A apple.

The Peninsula Fruit Farm Company 110 A cherry, 73 A apple.

Door County Land Company 33 A cherry.

The Cady Land Company of Green Bay has 30 A of old orchard, mostly apple at Egg Harbor and has planted 60 A this spring, apple and cherry.

Among individual planters F. A. Dennett of Port Washington has 25 acres cherry and 8 acres apple at Ellison Bay, the extreme northern tip of the peninsula. Mr. Dennett has 300 acres, all of which will be planted to fruit in the near future.

At Fish Creek F. L. Blackington has 19 acres; Fred Hotz 16 acres; Geo. M. Clark 20 acres; and Max Schindt 5 acres.

Washington Island reports 150 acres new planting.

While no complete orchard census of Door county is available the estimate of 2,500 acres of tree fruits seems conservative.

All of this development is on a sound and substantial basis. It is not a boom. The larger companies, such as the Sturgeon Bay Orchard & Nursery Company, the Reynolds Company, and the Co-Operative Orchard Company are composed of

men who know the business from start to finish. Also, it may be said that there is absolutely nothing of the fake element in their plan of selling which characterizes so many of the western schemes. Here at last is a chance for Wisconsin people to put their money into Wisconsin land and trees.

We are not advising anyone to invest in any of the corporations mentioned nor in any way in Door county or elsewhere; the giving of advice is mighty poor business. We are simply overjoyed to find that there is an outlet for Wisconsin money in Wisconsin, right at hand. The best way is to go and see, talk with some of the small growers there who have nothing to sell. Door county has the soil and the climate but the success of these large ventures must rest in the management. If the same intelligent care that has given such wonderful returns in the Hatch, the Bingham and the Lawrence orchards can be assured then the returns will be safe and sure.

There will be problems to face but we doubt not that the energy, enthusiasm and business sagacity which has made Sturgeon Bay to date will be able to solve these problems.

**ROGERS TO MICHIGAN**

A. J. Rogers has resigned as assistant in horticulture at the U. W. to engage in fruit raising in Michigan, his native state. We are all sorry to lose "Gus," but he was never thoroughly weaned from Michigan and will be happier there. And yet again we want only good loyal Wisconsin men teaching horticulture. We are footing the bill and have a right to insist that Wisconsin be given a fair show.

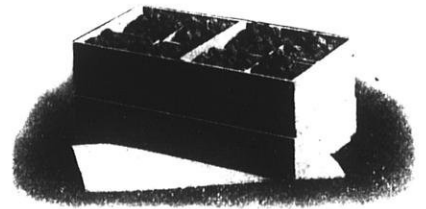
Mr. J. A. Hays, manager of our Gays Mills trial orchard, reports the cherry crop all picked, quality excellent, yield fair. The trees were planted May 1910. None of the trees bore more than a quart, as it was not considered advisable to allow heavy fruiting the first season. Will Sturgeon Bay please report?

Mr. Hays' report appears in full elsewhere in this issue.

**"We have a Fine Lot of  
Plants for the Garden."**

**SEND FOR LIST**

**J. E. MATHEWSON**  
Sheboygan, Wisconsin



**"BERRY CRATES, BOXES  
and a Full Line of all  
OTHER FRUIT PACKAGES."**

**Medford Veneer Co.**  
Medford, Wis.

**KNOX  
NURSERIES**

(Established in 1851)

**Make a specialty of Cherry Trees.** They strongly recommend **One Year Cherry Trees** because they are stocky, well headed, well rooted thrifty and vigorous. Plenty of **Two Year** for those who prefer the larger trees. They also have a nice lot of Apple in northern sorts

**A trial order will convince  
any one of their quality.**

**H. M. SIMPSON & SONS**  
Vincennes, Indiana.

**THE APPLE VS. RUBBER**

From all points of view the cultivation of the apple with its universal demand is finding more and more encouragement and the markets are not overstocked, especially with good fruit, as we Badgers are aware. The supply of A No. 1 fruit is short of the demand. Transportation is all that can be wished for most anywhere in the Union and to secure top prices good business management and high class goods always go hand in hand, and to attain the best of results and satisfaction a man must be "on the spot." By this I mean not alone to have all work done at the proper time but that the man at the helm is there and knows what's doing, keeping a keen lookout and always striving upward.

Respecting rubber: from an investor's standpoint this is a highly speculative venture. Practically no cultivated rubber has been marketed in the Western Hemisphere and thus far from what I can ascertain the growing of the tree has also been coupled with inexperience.

There have been numerous plantations started, notably in Mexico, in the Central American states and South America. Brazil has a great amount of rubber, the native Para tree, but its collection has been and is still more so now combined with hardships and is mostly done in a crude way by natives. This past winter it was my good fortune to be selected one of the two inspectors for a local corporation of fifty members to make a detailed report on our venture in rubber in Nicaragua, C. A.

This plantation of approximately 900 acres was found admirably situated in the interior of that state, lying north and east of the Rockies in the water shed dividing the Pacific and Atlantic Oceans and sloping toward the Carribean Sea, where the rainfall is more abundant than on the Pacific side.

Good virgin soil, humid air, and that in January, combined to add to growth of vegetation and of such denseness as is rarely met with anywhere. Direct management not being operative and the present lack of transportation were found drawbacks. The man constantly "on the job" was

missing; that watchful eye to give attention here or there giving encouragement to the young helpless tree and otherwise looking to the general good. So much for this individual place. All in all rubber is safe; no waste or loss while harvesting and this product can be easily harvested and transported. Some prospectuses state of tapping the tree at six years; twelve would be better, and thus quite a way off before revenues can come back.

Experienced management is the great essential to all successes and likewise is it applicable to all ventures in rubber. Therefore an investor should first have this assurance and reliably so of the conduct of any plantation he would wish to interest himself in.

LOUIS PIERRON.

No. Milwaukee, Wis.

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**ANTS**

For ants in lawn or garden use carbon di-sulfide. Get it at the drug store. Costs five cents an ounce. Highly inflammable and explosive compound. Keep uncorked bottle at least ten feet away from fire of any kind. Observe these precautions or you are likely to blow your head off.

Sprinkle two to four ounces over the ant hill according to size of hill and cover hill with a wash tub. That's all.

---

Mention this paper when writing to advertisers.

**WANTED**

To communicate with an expert apple packer, one who has had some experience in packing box apples. A good opening for the right party, Fall of 1911.

**Write F. Cranefield, Sec.**  
**Madison, - - Wisconsin**

**FOR SALE**

Fruit Farm of 40-acres five miles from city of Sturgeon Bay, one-half mile from water; thirty-two acres under cultivation, level, without stump or stone. Splendid fruit soil. Good frame house, log barn, well and windmill; 700 cherry, 800 apple set spring of 1911. Best bargain in Door county. Write

**BOX 535.**

**Madison, Wisconsin**

**Winter Apples of Quality**

Gem City, Hanko and Tuttle's Winter, three great Wisconsin winter apples. Quality excellent, keep in ordinary cellar until spring, trees hardy. Limited quantity, delivery fall 1911 and spring 1912, one year budded and one year grafted. Full line other varieties apples and plums, one year only. Have discontinued growing fruit trees with top older than one year. Have discontinued dealing in nursery stock and sell only our own grown. Our soil is a heavy upland clay on which we grow stock of a superior quality and we make a specialty of fruit trees for planting commercial orchards. Catalogue and circulars.

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**Henry Lake Sons Co., Nurserymen**  
**Black River Falls, Wisconsin**

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**FRUIT ORCHARD IN LAKE MICHIGAN**

Ross F. Wright, late assistant lightkeeper on North Manitou island, furnishes us with some information concerning the fruit industry at that place which we believe will be of much interest to our readers in this county. The island, which contains about 18,000 acres, possibly has the largest bearing cherry orchard in existence, over forty acres in one stretch being devoted to that fruit. Besides these there are much larger areas devoted to apples, plums, peaches and pears and the other small fruits.

Not only these orchards but really the greater part of the island is owned by John Newland, the son of a Chicago commission merchant, and the orchard work is entirely under his supervision, and having graduated from Harvard college and attended both agricultural and horticultural schools, he is an authority on this subject. Cherry pickers are paid 40 cents per crate, and as high as eight crates are picked in a day.

The fact that during the fruit season such boats as the Illinois or Missouri of the Northern Michigan Transit Co., each 225 feet in length, will load twice a week at the island, will give one an idea of the immense amount of fruit which is raised there. —*Sturgeon Bay Advocate.*

**EIGHT YEAR OLD NURSERY STOCK**

Just now the most popular apple tree, among nurserymen, is the two-year-old. The price, of course, remains the same and one year gained in getting rid of the crop.

We have been told that nothing older than a three-year tree should ever be set under any circumstances whatsoever, never.

Now that is probably about right in most cases, but our theories get an awful hard bump sometimes. Up at Port Wing is a little nursery and the owner sets out trees from the nursery rows "any old time" from two to ten years old and all seem to do equally well! We were shown apple trees which had stood for eight years in the nursery row and two years planted which were making a fine growth with every promise of doing exceedingly well.

This doesn't prove anything in particular, least of all that eight-year trees are best, but it does go to show that we may be too positive in our statements.

Friends of "Jimmie" Milward will be pleased to learn that he has recently been promoted and is now assistant professor of horticulture.

**THE CATALPA HUMBUG**

The attention of our readers is invited to the following from Bull. 120, Iowa State College of Agriculture:

"The gross annual return per acre per year on the Iowa plantations (catalpa) studied varied from \$10.77 to \$20.34."

Better plant a few potatoes or strawberries and buy cedar posts.



Corn Crop in Lake Geneva Trial Orchard Aug. 1910. Not first-class orchard practice but results were good as shown by the accompanying picture of Wealthy tree.

## WANTED

Eight or ten more buyers for five or ten acres of Cherry Orchard Land to take the balance of 1911 planting on the

**CO-OPERATIVE PLAN**

We guarantee 6 per cent annually on your investment for ten years. We promise at least 100 per cent in profits in ten years. We mature your orchard up to where you will have an independent income

**WHERE??**

STURGEON BAY, WIS. The Sour Cherry Land of the United States

**WHY??**

Write Us for a Booklet.

220 acres planted with 22,000 Sour Cherry Trees. 240 acres prepared for 24,000 trees in 1912. **Safe Proposition. No Risk. Large Profits.**

(You Get a Deed to Your Land when Paid for.)

**Co-Operative Orchard Co.** STURGEON BAY, WISCONSIN

### ABOUT NURSERY AGENTS

Nursery agents, "tree peddlers," like the poor, are always with us, but are apt to be more numerous as midsummer approaches.

If the agent can show satisfactory credentials, a license from State Inspector Sanders, can prove to your satisfaction that he represents a *real nursery*, preferably a Wisconsin firm of course, if he is offering standard varieties, stock to be paid for on delivery, the bargain to be closed thereby, give him a respectful hearing and buy such trees and plants as you mean to care for properly. If he comes with some wonderful "contract" scheme for planting cherry orchards, catalpa plantations or any new and "marvelous" scheme, just turn the bull-dog loose.

If any member or reader is in doubt about the reliability of any firm or the soundness of any nursery scheme offered write to this office and we will tell you all we know. We have a black list as well as one of the other kind. We have exposed the schemes of various swindlers in these columns and shall continue to do so as fast as we learn about them. Members can aid in this by reporting "contract" orchard and similar schemes and such information will be held strictly confidential. We will then proceed to state the bare, ugly facts without fear or favor.

### A LITTLE PHILOLOPHY

That in man which does not perish is his personal influence. Since we are creatures of environment and heredity, if you wisely shape the environment of those about you and transmit that which is good to your—and their—posterity, you will live. And the waves of time shall dash impotently against your life, next year and next century. You will be living ten generations hence in ten thousand or ten times ten thousand descendants of yourself and of those whose lives your life beneficently influenced. And you can not buy life with gold nor with great works that pay dividends in dollars, but with service and self, coined into deeds of unselfishness.—Edwin Lefevre in *Everybody's*.

## Door County Lands

ARE THE BEST IN THE STATE OF WISCONSIN

For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

**DOOR COUNTY LAND CO.,  
STURGEON BAY, WIS.**

Fig. 1291



# MYERS SPRAY PUMPS

Nozzles, Hose, Fittings, etc.

Fig. 1317



Fig. 653



Take off your hat to the Myers! BEST PUMP ON EARTH.

Fig. 640



Fig. 1410

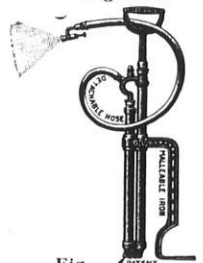


Fig. 1199



Fig. 702



Fig. 1125

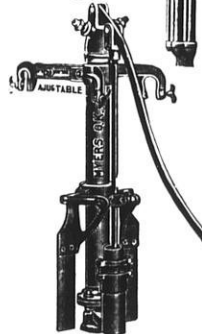


Fig. 1358



Fig. 1363

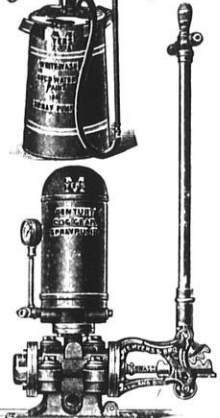


Fig. 1229

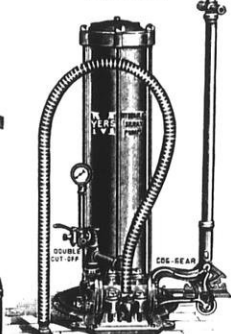


Fig. 1364

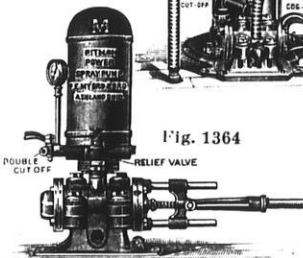
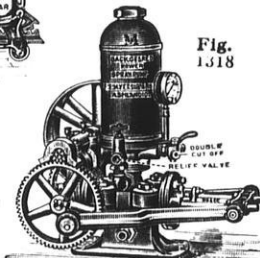


Fig. 1318



When the season arrives you want to be able to SPRAY WITHOUT ANY DELAY OR ANNOYANCE. A single day's delay may prove costly. In order to be safe at all times you must have a dependable spray pump outfit. YOU CAN ALWAYS DEPEND ON THE MYERS. The above illustrations show only a few MYERS SPRAY PUMPS made in all styles and sizes with a full line of NOZZLES AND ACCESSORIES for complete outfits with which to meet every requirement. GET READY NOW. WRITE FOR OUR SPRAY PUMP CATALOG.

**F. E. MYERS & BRO.,**

**ASHLAND, OHIO**

### BUY PENINSULA FRUIT LANDS

E. F. Gennie and A. F. Sorter of the Bayfield Peninsula Orchard Co., who recently acquired 23,000 acres of fruit lands in the Lake Superior south shore district, are in the city arranging to open an office here for the purpose of placing upon the market the property which they now control. It will be sold in five and ten acre tracts.

The fruit land men are from Minneapolis and will conduct a vigorous campaign to colonize their property. It is located on the Cranberry river and in the Bark Bay district, about 35 miles from Superior.—*Superior Telegram*.

### SPARTA STRAWBERRY CROP

Sparta, Wis., June 23, 1911.

We are through shipping strawberries here today. Have shipped a total of 55 cars by freight, and these together with express shipments, make a total of nearly 37,000 cases strawberries shipped by the association this year. Prices have not been as good as last year, but think they will average something over \$1.00 per case, F. O. B. Sparta. Shipments commenced May 30 and ended June 23d.

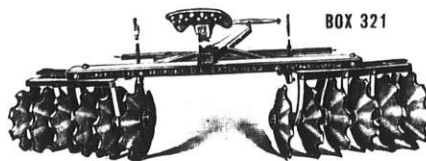
E. A. RICHARDSON,  
Mgr. Sparta Fruit Growers'  
Association.

The city officials of Rhinelander have enterprise, as shown by the following from a local paper.

"The board of public works have had a tank sprayer at work since Monday on the shade trees along the city streets in an effort to stop the ravages of the black caterpillar which is rapidly denuding the elm trees of their leaves. The spraying appears to be very effective and if the property owners co-operate with the city officials in this work the many beautiful elms can be preserved and the liability of the return of the pests another year materially lessened."

Sparta holds the record for blackberries, \$757 from one acre for one crop. This field yielded \$150 one year from planting. E. A. Richardson, manager of the Sparta Fruit Growers' Exchange, raised these crops.

## CLARK'S CUTAWAY HARROWS ARE WONDERS



E. G. MENDENHALL,

GENERAL DISTRIBUTING  
Agent for the West

Two-Horse Single Action Cutaway Orchard or Farm Harrow with Extension Head, Reversible; also One Horse Size. Also Double Action Steel Jointed Pole Cutaway Harrows. (Can be Extended.) For Orchard and Farm. Send for Catalogue. If a Fruit Grower, send for our New Catalogue of Fruit Growers' Supplies.

KINMUNDY, ILLINOIS

### SOME STRAWBERRIES

Sparta has 400 acres.

Alma Center and Merrillan, 100 acres.

Sturgeon Bay, 200 acres.

Bayfield, 200 acres.

If members will send in acreage from other districts it will be of interest and value to all of us.

Some may tell you that the far west is the only place to raise fruit, others will say Michigan is the best state but we of Wisconsin know better. We all now know what some of us have always believed and preached, that there are no better opportunities east or west than right at home. Small fruits, apples and cherries are as big money makers in Wisconsin as in any other state. We have the proof.

Appleton comes to the front with a strawberry story, just a single berry but a big one,—for Appleton. Weight, two ounces; circumference, six and one-fourth inches; variety, Highland.

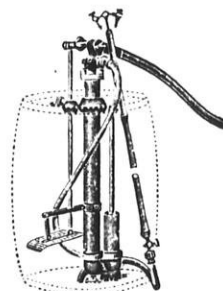
Q. What is the best treatment for sweet pea vine when the green aphid appears?

A. The pea louse was originally introduced from Europe and has now become a serious pest in this country.

Peas should be planted in rows so far apart as to permit the use of single horse cultivator between them. When badly infested, the "brush and cultivator method" has been most successful in control. Men with pine branches should brush off the lice on hot dry days, when they can be turned under with the cultivator immediately following. This method should be repeated frequently until picking time.

Kerosene emulsion spray may be

## Get The Best



A Good Spray Pump earns big profits and lasts for years. THE ECLIPSE is a good pump. As practical fruit growers we were using common sprayers in our own orchards—found their defects and invented the Eclipse. Its success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

**MORRILL & MORLEY**  
Benton Harbor, Michigan

Send For **PANSY GUIDE AND CATALOG**  
... Our ...

of Flower Seeds and Plants

**FREE TO ANY ADDRESS**

**WILLIAM TOOLE & SONS**

PANSY HEIGHTS, BARABOO, WIS.

## WISCONSIN NURSERIES

Grow and handle all kinds of nursery stock. We employ no agents but sell direct. If in the market you can save money by buying of us. Get our prices.

**WISCONSIN NURSERIES,**

Union Grove, Wis.

W. S. Moyle, Prop.

**FOR SALE**—Apples of New York, by Beach. 135 colored plates. 2 vols. Albany, 1905; \$7.50. Grapes of New York, by Hedrick. 100 colored plates. Quarto. Albany, 1908; \$5.00. Send for fine copies to **John Skinner, 44 N. Pearl street, Albany, New York.**

used successfully at first appearance of lice, using 5 per cent oil strength or diluted 12 times, but the brush method has been more successful.

J. G. Sanders.

Ask your neighbor to subscribe for this paper,—we need the circulation.

# Wisconsin Horticulture

Official Organ of the Wisconsin State Horticultural Society

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No 12

## NATIVE PLANTS

You mention in HORTICULTURE that you wish for photos of horticultural scenes. I've taken one purposely to send to you for publication if it is good enough. It is my parents' home. Here is an example of what can be done with a small outlay of capital in the shrubbery line. On the left sumac (native), wild native plum, at lower corner of porch purple lilac. Roses in bloom on left are the common white double rose (a beauty, I don't know the name); to right is a clump of common pink wild roses, a plant I took from a meadow here over twenty years ago; between the roses is old-fashioned striped grass; some beehives in lower left hand corner; English ivy on porch; a dilapidated Gen. Grant crab in right foreground, also box elder. In the rear of house not in picture are some native soft maple and also a heavy bitter-sweet screen. Without

Beauty of form, beauty of color, fragrance, hardiness and adaptability as a cut flower.

Think it over and see what flower, will fill this list, outside of the peony. The rose comes fairly near, but it is weak as a rule in hardiness; the same is true of the lily. The gladiolus could fill the bill except for its lack of fragrance. In fact, the only flower that will fulfill all the conditions is the peony. It is the hardiest of all flowers, has a delicious fragrance, will keep for a week as a cut flower, and there is no other flower that will equal it in gorgeous color, beautiful form and immense size. It will grow and bloom for anyone and in any soil. It is cheap enough that the modest cottage could afford to have a few choice clumps.

I wish I could put half a dozen clumps of beautiful peonies in every bare and forlorn looking farm yard in the United States. Hundreds and

The plants can be set either in the spring or fall, but setting them in the spring, should be set very early; if set in the fall, they will often bloom the



Beautiful Suburban home of H. C. Melcher, Oconomowoc

first spring, and always by the next year.

It is as hardy as an oak, lives for years, gets better with age, needs no protection, will grow in any good soil and has absolutely no diseases or insect enemies.

## CULTURAL HINTS ON PEONIES.

Peonies will grow in any soil that will grow potatoes or common garden stuff.

No special preparation of the soil is needed, but of course it should be well dug up, the same as for any kind of plants.

Rich soil is of course best, but it should not be filled with fresh rank manure. Old, rotten manure worked into the soil in small quantities would be all right.

Heavy soil is better than light. Thin, sandy soil is no good. If yours is that way, work in some black soil and clay.

Moist soil is best, but should not be wet, sour or soggy.

The peony is perfectly hardy and never winter kills. Alternate thawing and freezing of wet soil will sometimes heave the plants out, so it is a good plan to mulch heavily with strawy manure late in the fall.



Not merely a house but a home

this decoration of native trees and shrubs and common vines the place would seem very desolate and unattractive, as it is it is "home."

P. T. GILLET.

## PEONIES

Florists have often said that any flower, to be popular and valuable, should be perfect in these five points:

thousands of them have not a sign of a flower, or beauty of any kind.

## THE FLOWER FOR THE MILLION AND THE MILLIONAIRE.

The peony has been called the flower for the million and the millionaire. The millionaire could have no finer flower, and no flower would do so well for the common average gardener.



# The Summer Meeting

Peonies, like apples, will not grow in the extreme South. But there is no limit on the North.

While peonies are perfectly hardy to any kind of winters, the buds are sometimes killed by late spring frosts. It is true of the European varieties especially. American varieties seldom get caught, and the Terry sorts are always sure to come through and bloom.

Fall setting is the best. Next to that, very early spring. Late spring is pretty sure to always prove a failure. Set as soon after September first as possible.

Fall-set roots of fair size, especially the American sorts, will bloom early next spring.

Many peonies, especially the European sorts, are shy bloomers and do not come in bloom till four or five years from setting, and only bloom scatteringly then. The Terry and other American sorts are practically all free bloomers.

The roots should be set so that the crown or bud will be two or three inches under the ground.

Set the plants not less than three feet apart each way. They live twenty to thirty years, and need plenty of room. For large clumps four feet is none too far.

Old clumps will do better if divided. A dozen good stems is better than more. August or September is the time for this.—*The Fruit Grower*.

## WISCONSIN ORCHIDS

ALLETTA F. DEAN.

To many people the name Orchid conveys the idea of a flower rare, distant, and, excepting to the very rich, unattainable.

Indeed the story of the cost of some of the orchids seems to belong rather to fiction than fact. Within a few years in England Baron Schroeder has sold a unique variety of cypripedium for \$1,825. A number of years ago I saw in the Massachusetts Horticultural Society exhibit an orchid belonging to Fred

Ames for which he was said to have paid \$1,500. It is probable that larger sums have been paid more often for single plants of orchids than for any other kind of plant. A thousand dollars for an orchid was not an uncommon price in the middle of the nineteenth century. The cost of obtaining them is so great both in money and human life, that the wonder is that they are so cheap. Many a man has spent months in dense jungles, risked and lost his health where he knew no white man was safe, held his life in his hands among unfriendly savages, all for the chance of finding some new kind. At the present time collectors are still engaged in searching the tropics, but striking novelties are now rarely discovered.

It is not so much the difficulty and danger that makes the orchid costly, as rarity or peculiarity. The cypripedium of Baron Schroeder was a variety raised in his own greenhouse, and some of the most costly have been hybrids produced with the utmost care.

About 400 genera are now known, comprising 3,000 or more species. They are almost all remarkable for the grotesque form of their roots or stems, or for the fragrance, brilliancy, and odd structure of the flowers. They are universally acknowledged to rank among the most singular and most varied forms in the vegetable kingdom. They are natives of nearly every part of the world.

The orchid seems to prefer the more interesting, or the more ornamental side of life. Not many of them condescend to be humbly useful, nor to lend themselves to the sordid demands of commerce. The sale of commerce is a nutritive substance something like sago, from the roots of the Asiatic orchid. Our flavoring, vanilla, is made from the fruit of a West Indian kind, and our common Putty-root is said to be useful in mending broken dishes.

The interest in orchids is not declining. The work of hybridizing

them is full of interest, and the possibility of obtaining a desirable new variety is an exciting one. Species run very true—there are few sports. A blossom produces a great abundance of seed. These facts ought to make it a valuable plant for the study of heredity. Nature must yield all her secrets in time. What qualities, what *classes* of qualities does a plant get from its seed-parent? What from its pollen-parent? What from its grand-parents? Why?

I have endeavored in some slight measure to make a study of heredity as shown in the orchid hybrids which have been produced in great abundance in recent years. And right here there is a complaint to make against horticulturists, even against that prince of them—Bailey—the author of our *Cyclopedia of Horticulture*. They publish no complete record of the wonderful results which they have achieved. Some do not keep such records at all. The pedigree of choice orchids is said to be kept as carefully as that of hunting-dogs, or of race-horses. But oh, what poor incomplete descriptions we find in the books, both of hybrids and of their parents, leaving us to guess at the hereditary tendencies and the real relationship!

If the habit of growth, and the shape and color of the orchid is interesting how much more so is its pollination! In most orchids the pollen grains cohere in masses. Here can be no dispersal by the wind, neither can the pollen drop upon the stigma of its own flower. Some moth or butterfly or unwilling bee must be persuaded to do the work, or it will not be done. This wonderful partnership of flower and insect Darwin long ago described.

This group—the orchids—make up the body of the aristocracy of the plant kingdom, the nobility, the oldest of the old families, and the most highly specialized. Their highest development was reached in some prehistoric age when they were the more dominant type. Perhaps they

# Oshkosh, August 16th and 17th

sprang from a common ancestry with the lilies. They continue to live in their ancestral homes. Other plants may roam but orchids stay firmly rooted in their original haunts, making the highest possible demands upon their environment. They are at once driven to the wall, however, when placed in competition with common flowers—weeds—or when conditions are changed for them, as in deforesting. They are highly characteristic in all their habits, in beauty, and in fragrance. They are the cultured among plants. They are not practical, not able to push their way in an every day world.

I have found people who did not know that at our very doors are growing many representatives of this family of rare and beautiful plants. According to Gray's *Manual* we have in the United States of the group Orchidaceae 17 genera, including 58 species. Of these the herbarium of the University of Wisconsin contains specimens of 13 genera, including 37 species, collected within the state. I have the one species of another genus growing within the state. The herbarium has every member of 6 of the genera. Of the 20 not yet reported for Wisconsin, 13 belong wholly to the eastern or southern states, leaving but 7 more which ought to be found in Wisconsin to complete the list.

No comprehensive American work on orchids has yet been published. I cannot give you the calendar of our Wisconsin orchids, but the majority of them are found in May and June.

Go out into our dark, damp woods, you who love Nature and her children, and there find many members of these F. F. N.—these *First Families of Nature*—these aristocrats.

Our earliest representative of one of these families is the Showy Orchis (*Orchis spectabilis*). It blossoms from early May to the middle of June, liking best the shade of hemlocks, and often growing in patches. It has two shining rich green oblong

leaves, 3 to 5 inches long down near the ground. Between them rises the flower stalk 6 inches high, bearing a few handsome flowers with a deep pink hood and a pure white ovoid lip. It is well worthy of its name.

The Rattlesnake Plantain (*Good-ye-ya*) everyone must have seen who

The Coral-Root (*Corallorhiza*) has no green foliage and for that reason is classed with the saprophytes—plants that feed on decaying wood, moss, and leaves. It is one of the few orchid saprophytes that have been successfully cultivated. It has a brownish or yellowish stem, rather



"There were giants in those days."

Almost the last of its race. A white pine, on the fair grounds at Wausau. This lonely sentinel stands, lonesome and alone within sight and sound of Big Bull Falls, over which millions of its companions floated to the mills.

has frequented the woods. It is a beautiful plant (too beautiful for its hideous name), though its claims to admiration are confined to the foliage. Its prostrate rosettes of exquisitely white reticulated leaves carpet many a shady nook. It has a dense spike of yellowish-white blossoms that appear from May to August.

small, dull-colored flowers, and a queer mass of hard fleshy roots resembling coral, from which it gets its name. It grows in the damp woods or swamps.

Of the Sistera or Twayblade family we have specimens of but one member; we ought to have two. It gets its common name from the two opposite sessile leaves midway on the

# Come and Bring Your Friends

stem. It is a delicate little plant in woods and swamps with a short raceme of minute greenish-purple blossoms.

Another family—Siparis—is also called Twayblade, but here the two leaves are at the root. There are two children in this family and we have them both. The lily-leaved Twayblade lives in the woods. It is the more slender with a string of ten to twenty flowers. The lip is rather large, brown-purple, the other parts of the flower are greenish, or yellowish-white, narrow—thread-like, even, and bent backwards, resembling the sprawling legs of some insect. The other—the ovate-leaved one—is from four to twelve inches high, with rather small yellowish-green flowers. It is more abundant than its sister and has chosen to live in moist grassy places in the open, instead of in the woods.

(Continued in Next Issue)

## ECONOMOWOC NOTES

Conditions here are very much like those reported by Dr. Loope in July number. Some varieties of apples, especially McMahan and Newell, while blossoming full, are showing scarcely any fruit. Early apples, while showing a fair set, are dropping badly right now, due no doubt to the dry condition prevailing here all summer. Longfield and Wealthy are carrying fair crops and are the best things we have here this year.

We have just finished harvesting the poorest crop of strawberries ever raised here, caused by blighted blossoms. As usual the chief offender was Dunlap and that variety will be planted very sparingly in the future. We have a new strawberry here that is very promising. It was "discovered" by one of our strawberry growers a few years ago and the plants were put on the market last year. It is very late, a week later than Gandy, which it equals both in size and quality. The blossom is perfect and the plant vigorous. It is propagated by a local nursery company

and is named with their initials. I think growers would do well to give it a trial.

Strawberry leaf roller is much more troublesome than usual this year, especially on new planting. This pest with the present droughty conditions makes the outlook for the next crop of strawberries anything but promising.

H. C. MELCHER.

## MILWAUKEE CO. GOOD FOR FRUIT

I was very much pleased with your answer in the Horticulturist to the Door county enthusiast regarding the superior qualities of Door Co. as a fruit growing section of Wisconsin. I do not question that Door Co. is a good place for fruit, and as good a place as there is in the state of Wisconsin, but I do not think, by any means, it is the only place, or but what there are places just as good. The main difference is in my estimation that they make a business of it there, and they do not anywhere else. But if the same amount of energy was put forth, and an equal proportion of the land owners in certain portions of Milwaukee county went into fruit growing, I believe the result would be just as satisfactory, judging from my experience.

I know of but one man in Milwaukee county that has made any effort at fruit tree growing, before it was taken up by Mr. Barney Eaton and myself. I do not know today any tree fruit orchards in Milwaukee county that have been planted to any extent, and given any reasonable attention, excepting these two, and I believe that these two orchards will today compare favorably with any two in the state of Wisconsin in quality.

I have about four hundred cherry trees, two hundred plum trees, one hundred and fifty pear trees and fifty apple trees. Mr. Eaton has four hundred cherry trees and at least one hundred apple trees. I did not lose one tree last winter out of this eight hundred. All of these trees are strong,

healthy, and growing very fast. The foliage is of the richest color, and in fact the whole eight hundred trees show perfect health. I cannot see how it would be possible for trees to be any better in any way. The cherry and plum trees are loaded so full that I believe we will have to pick off, from some of them at least, one-half the fruit in order to mature the balance and for the branches to hold up the weight. If they have got anything better than this in Door county or anywhere else I would like to see it, and I believe this is a practical demonstration of the fact that this kind of fruit can be grown successfully in Milwaukee county as well as Door county.

Mr. Eaton's land runs right down to the lake, and mine is about two miles out. This is high and of the quality to grow fruit. Many people seem to think that this part of the state is just above a marsh and good only for grass or market gardening or to raise cabbages or something of that sort. While, as a matter of fact, starting at the south limits of this city, and in fact, still inside of the city, there is a high embankment directly up from the lake and the land generally slopes from there gradually higher as it goes west, so that there is a strip varying from two to five miles from inside of the Milwaukee city limits to the south county line, and beyond, that is mostly high, and also there is a considerable amount of sand and gravel soil in this district, and I believe that if the farmers of all that district would try they would be as successful in raising fruit as anyone. But with the two exceptions above, about the only thing they do is to plant a tree, and then let it grow with grass around it, and they do no pruning, spraying, cultivating or mulching, or anything of that kind, and after a few years they get a tree that is ill-shaped and literally filled with branches and perhaps diseased on account of no spraying. People look at that condition and say we cannot grow fruit in

# Everybody is Welcome

this section of the state. They cannot grow fruit in Door county or anywhere else under the same conditions.

Mr. Eaton as well as myself have gone at it in a better manner, to say the least. We do cultivating, pruning and spraying. We have not always sprayed as religiously as we ought to have done in every case, but still we carry out the rule of spraying very nearly. The result is that we have strong healthy trees that do bear fruit.

It seems to me that it would be for the interest of the Wisconsin State Horticultural Society to point to the successes in other portions of the state of Wisconsin, rather than to allow the impression to prevail that in order to raise fruit in Wisconsin one must move to Door county, and these two instances in Milwaukee county, which are the only instances which have been given a fair trial in the county, can be pointed to as being successful.

If it is true that there is a territory here or in any other part of the state that is just as good, or that is good, it is for the interest of the fruit growers in general to know it. Otherwise, we would not need a Wisconsin Horticultural Society so much, but could transfer it into Door County Horticultural Society.

Yours truly,

E. E. DUNNING.

## OUR FRIENDS

While driving about I have noted that many cover their berry bushes to keep the birds from getting the fruit. It is not fair. Let the birds have some berries. They pay for them with the melody and beauty they bring into our lives. They destroy millions of flies and other insects that would do far more damage than any number of birds can, for at the worst they only daintily nip here and there a berry. Don't be selfish with the birds! they are our best friends.

MRS. L. H. PALMER.



A few shrubs well placed on a city lot

## SUMMER MEETING

OSHKOSH, AUGUST 16th and 17th

### PROGRAM

Regular Sessions at City Hall.

Tremont Hotel, Headquarters for Officers and Delegates.

Rates \$2.00 and \$2.50, American.

### AFTERNOON SESSION.

Wednesday, August 16, 2 P. M.

Address of Welcome by Mayor Banderob.

Response by President Bingham.

Amateur Floral Decorations.....Wm. Toole, Baraboo  
Lilies.....A. J. Smith, Lake Geneva  
Roses.....A. Martini, Lake Geneva  
Flowers for the Farmer.....Mrs. Marcia Howlett, Oshkosh  
Home Canning.....Mrs. Irving Smith, Ashland

### WEDNESDAY EVENING, 7:30 P. M.

Conservation of Bird Life.....Dr. Victor Kutchin, Green Lake

### THURSDAY FORENOON, 8:30 A. M.

New Laws Affecting Our Members.....C. L. Richardson, Stanley

After Four Years.....Irving Smith, Ashland

Short Talks By:

J. G. Sanders, Dept. of Entomology and State Nursery Inspector.

J. G. Moore, Dept. of Horticulture.

L. R. Jones, Dept. of Plant Pathology.

Each of the Professors will give an outline of the work in his department for the season and also answer questions.

### THURSDAY AFTERNOON.

Trolley excursion to visit market gardens and orchards with picnic supper at farm of N. A. Rasmussen.

### THURSDAY EVENING.

Illustrated lecture on play and playgrounds by representative of Chicago Playgrounds Association. Opera House.

Special invitation to Oshkosh people.



## PREMIUM LIST

THE FOLLOWING CASH PREMIUMS ARE OFFERED FOR EXHIBITS OF FRUITS AND FLOWERS.

	1st	2nd
Best Display Asters .....	\$1.00	\$0.50
Best Display Cosmos .....	1.00	.50
Best Display Coxcomb .....	1.00	.50
Best Display Single Dahlias .....	1.00	.50
Best Display Double or Show Dahlias .....	1.00	.50
Best Display Cactus Dahlias .....	1.00	.50
Best Display Delphiniums .....	1.00	.50
Best Display Gaillardia .....	1.00	.50
Best Display Gladioli .....	1.00	.50
Best Display Nasturtiums .....	1.00	.50
Best Display Pansies .....	1.00	.50
Best Display Petunias .....	1.00	.50
Best Display Phlox (Annual) .....	1.00	.50
Best Display Phlox (Perennial) .....	1.00	.50
Best Display Roses .....	1.00	.50
Best Display Snapdragon .....	1.00	.50
Best Display Sunflowers .....	1.00	.50
Best Display Sweetpeas .....	1.00	.50
Best Display Stocks .....	1.00	.50
Best Display Verbenas .....	1.00	.50
Best Display Herbaceous Perennials .....	1.00	.50
Best Display Annual Garden Flowers not enumerated in above list, (collection) .....	1.00	.50
Best bouquet of garden flowers in vase not over six inches in diameter .....	1.00	.50

## FOR AMATEURS ONLY.

## POTTED PLANTS.

Best Fuchsia .....	1.00	.50
Best Rex Begonia .....	1.00	.50
Best Tuberous Begonia .....	1.00	.50
Best Begonia other than above .....	1.00	.50
Best Gloxinia .....	1.00	.50
Best Sword Fern .....	1.00	.50
Best Fern other than above .....	1.00	.50
Best Asparagus Plumosus .....	1.00	.50
Best Asparagus Sprengerii .....	1.00	.50
Best Display Geraniums .....	1.00	.50
Best Display Coleus .....	1.00	.50
Best Display Golden Rod .....	1.00	.50

## WILD FLOWERS

Best Display Asters (native) .....	1.00	.50
Best Display Lobelias (native) .....	1.00	.50
Best Display Native Ferns .....	1.00	.50
Best, most artistically arranged bouquet of Wild Flowers. ....	1.00	.50
Best Display Ornamental Wild Fruits .....	1.00	.50
Best Display Native Fungi .....	1.00	.50

Best collection of Wild Flowers in arrangement and variety; the different varieties to be shown separately each with common and botanical name .....	3.00	2.00
Sweepstakes to be awarded to the exhibitor receiving the largest number of first premiums on flowers and potted plants, amateurs only .....	5.00	3.00

## FOR PROFESSIONAL GROWERS ONLY.

Display ornamental potted plants .....	10.00	5.00
Display cut flowers .....	6.00	4.00

## FRUIT.

## APPLES.

Best Plate Alexander .....	1.00	.50
Best Plate Astrachan .....	1.00	.50

## STATE FAIR EXHIBIT

The State Horticultural Society will have an exhibit at the State Fair, Milwaukee, Sept. 12-16, and members are requested to contribute.

Special requests will be made of certain members for fruit in large quantities, but every one is invited to send choice specimens of apples, plums, grapes or any other fruit available at that time.

The Society will pay express charges on *good fruit*. Here are some things wanted: Large, perfectly sound specimens of Dudley, Fall Orange, Fameuse, Longfield, McIntosh, McMahan, N. W. Greening, Duchess, Wealthy and Wolf River apples.

Grapes of any variety.

## THINGS NOT WANTED.

Seedling fruits of any kind, no matter how fine they may seem to originator.

Scabby, wormy or unsound specimens of any fruit.

Apples and plums must be wrapped in at least two layers of soft paper and carefully packed solid in wooden boxes. If any space whatever is left in box so fruit can rattle it will be unfit for exhibit.

Send the best you have and it will be shown under your name but not for premiums.

This is a Society exhibit and will not compete for premiums.

The exhibit will occupy a tent 20x50 feet or larger directly in front of the horticultural building. A register will be provided for visitors and another for our members. Every member attending the State Fair is invited to call at the tent, leave bundles and make yourself generally at home.

## WHY DOOR COUNTY EXCELS

As a contrast to the favorable outlook here, the fruit crop of eastern Texas and other southern states is reported as being severely damaged or lost by frost. The following newspaper clipping indicates what the Missouri orchardist is "up against:"

Columbia, Mo., March 19.—J. C. Whitten, professor of horticulture at the University of Missouri, and six students in the college of agriculture, worked all Thursday night to protect

	1st	2nd
Best Plate Autumn Strawberry .....	1.00	.50
Best Plate Duchess .....	1.00	.50
Best Plate Dudley .....	1.00	.50
Best Plate Early Harvest .....	1.00	.50
Best Plate Fameuse .....	1.00	.50
Best Plate Lowland Raspberry .....	1.00	.50
Best Plate Longfield .....	1.00	.50
Best Plate McMahan .....	1.00	.50
Best Plate McIntosh .....	1.00	.50
Best Plate Lubsk Queen .....	1.00	.50
Best Plate Patten Greening .....	1.00	.50
Best Plate Plumb Cider .....	1.00	.50
Best Plate Switzer .....	1.00	.50
Best Plate Tetofski .....	1.00	.50
Best Plate Utter .....	1.00	.50
Best Plate Wealthy .....	1.00	.50
Best Plate Seek-no-Further .....	1.00	.50
Best Plate Wolf River .....	1.00	.50
Best Plate Yellow Transparent .....	1.00	.50
Best Display Crabs .....	1.00	.50
Best Display Pears .....	1.00	.50
Best Display Japanese Plums .....	1.00	.50
Best Display European Plums .....	1.00	.50
Best Display Native Plums .....	1.00	.50
Best Display Cherries .....	1.00	.50

## BUSH FRUITS.

Best Red Currants, 1 quart .....	1.00	.50
Best White Currants, 1 quart .....	1.00	.50
Best Black Currants, 1 quart .....	1.00	.50
Best Gooseberries, 1 quart .....	1.00	.50
Best Red Raspberries, 1 pint .....	1.00	.50
Best Black Raspberries, 1 pint .....	1.00	.50
Best Blackberries, 1 pint .....	1.00	.50

Specimens of plums must be fully colored and ripe enough for culinary use.

Five apples to be shown for a plate.—In plums and crabs not less than

six specimens will be considered a plate.

	1st	2nd	3rd
Sweepstakes for largest number of first premiums for fruit	5.00	3.00	2.00

## VEGETABLES.

	1st	2nd
Best quart Snap Beans .....	1.00	.50
Best quart Bush Lima Beans .....	1.00	.50
Best quart Pole Lima Beans .....	1.00	.50
Best six Turnip Beets .....	1.00	.50
Best three heads Drumhead Cabbage .....	1.00	.50
Best three heads Cabbage any other variety .....	1.00	.50
Best three heads Cauliflower .....	1.00	.50
Best Celery, six heads .....	1.00	.50
Best twelve ears Sweet Corn .....	1.00	.50
Best six Cucumbers .....	1.00	.50
Best Head Lettuce, three heads .....	1.00	.50
Best three Musk Melons .....	1.00	.50
Best three Watermelons .....	1.00	.50
Best six Parsnips .....	1.00	.50
Best twelve Tomatoes .....	1.00	.50
Best Turnips, one-half peck .....	1.00	.50
Best White Onion, one-half peck .....	1.00	.50
Best Yellow Onion, one-half peck .....	1.00	.50
Best twelve Carrots .....	1.00	.50
Best three Egg Plant .....	1.00	.50
Best six Peppers .....	1.00	.50
Best three Summer Squash .....	1.00	.50
Best three Winter Squash .....	1.00	.50
Best Display Radishes .....	1.00	.50
Best Display Novelties .....	1.00	.50

	1st	2nd	3rd
Sweepstakes for largest number 1st premiums for Vegetables.	5.00	3.00	2.00

the 300 fruit trees belonging to the experiment station from the cold. They burned 800 gallons of crude oil on two acres."

As there has been considerable cold since the date given, perhaps the operation had to be repeated. Much of the boasted orchard land of the west, now being exploited and sold at very high prices, lies in valleys. The reason of the location is doubtless the necessity for irrigation, but as far as climatic conditions go, valley sites are far more frosty than hill sites where there is "air drainage"—that is where the frosty air flows down hill and away from the trees.

Mr. Richard Marken, who spent last season in the Bitter Root valley of Montana says there was frost there on the 2d of June and again on the 28th of August, and that frosts usually occur there the latter part of August each year. The finely illustrated fruit magazine published in Oregon advertises and exploits such valleys for fruit growing, and also advertises many kinds of orchard heaters. These heaters are used in burning crude petroleum and other smudging fuel to prevent injury by frost to the fruit bloom. This shows the general necessity for their use in that much praised fruit country.

Contrasted with this, we have here in Door county no such necessity. Our fall frosts do not usually kill foliage till the middle of October and this gives us six weeks or more advantage in fall growth over that of the Montana place mentioned above. Lake Michigan and Green bay serve as orchard heaters for orchards here and for 50 years they have not failed the fruit grower.

It seems to me wise for any one engaging in commercial fruit culture to go where conditions favor the certainty of the crop. I came to Door county several years ago because I believed conditions were favorable for fruit growing and I have not been disappointed—the country has "made good."—A. L. Hatch, Sturgeon Bay Advocate, April 13, 1911.

Mention this paper when writing to advertisers.

Ask your neighbor to subscribe for this paper,—we need the circulation.

# Wisconsin Horticulture

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ASSOCIATE EDITORS, Sixteen Hundred  
Members of the Society.

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## NOTICE TO MEMBERS

Members of the State Horticultural Society are hereby notified that a meeting of the Society will be held in Oshkosh, Aug. 16th and 17th, 1911, the first session at the City Hall, 2:00 p. m., Wednesday, Aug. 16th.

The meeting is called for a discussion of the different topics given in the program printed elsewhere in this issue and for an exhibit of fruit, flowers and vegetables.

FREDERIC CRANFIELD,  
Secretary.

For the Board of Managers.

Oshkosh, Aug. 16th and 17th.

You can't afford to miss the summer meeting. Remember the date and place.

There will not be a dull moment from Wednesday noon to Thursday night. The members of the Oshkosh society are a lively bunch, they get up at three o'clock in the morning all summer and when they have company they never sleep.

### CREDIT LIST FOR JULY

E. W. Longfellow, 1; Geo. Marley, 1; Jas. P. Kegel, 1; Fred Beck, 1; R. E. Cochrane, 1; E. Grote, 1; Louis ierron, 1; F. R. Preston, 1; J. P. Arnold, 1; W. E. Larson, 2; B. Hahn, 2; J. A. Nelson, 1; E. Shepherd, 1; J. G. MacCune, 1; C. P. Brainard, 2; Fred Simon, 1.

### NOTES FROM DOUGLAS CO.

About 2,500 or 3,000 apple trees were set out in Douglas county this spring, along the southern shore, mostly along the Northern Pacific railway, about six miles inland.

The growth of foliage, trees and grasses is something phenomenal this year and the crops of strawberries, raspberries and blueberries will be of the "bumper" variety in this locality.

B. D. MERRELL.

### LATE RETURNS FROM STRAWBERRY CROP

STURGEON BAY.

The Door County Fruit Exchange reports 25,600 crates shipped from Sturgeon Bay. Average price F. O. B., \$1.10 per crate.

### A STRAWBERRY SPECIAL.

A special train left here this morning for St. Paul and Minneapolis, every car strawberries except one and that fish, all Bayfield products. Seven or eight cars of strawberries will be picked tomorrow (July 3) and go out tomorrow evening. Weather very hot and ripening berries fast.—Bayfield correspondence.

Extra copies of this issue will be sent to members for distribution. Apply early.

Look over the premium lists, surely you have something worthy. If you cannot come send fruit or flowers by express prepaid to the secretary. All such exhibits will be carefully staged and entered.

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We offer a complete line of Fruit, Shade and Ornamental stock. Varieties that will suit your needs.

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**NURSERY INSPECTION**

Many of our readers have asked about the new nursery inspection law and as others no doubt will want to know the requirements the entire chapter is given here. Prof. J. G. Sanders has been appointed as nursery inspector and all inquiries concerning inspection, agents' certificates, etc., should be addressed to him.

SECTION 1. Section 1494—1 of the statutes is amended to read: Section 1494—1. 1. The governor shall designate some person as the state orchard and nursery inspector, who shall carry out the provisions of sections 1494—1 to 1494—10n, inclusive, under his direction.

2. Said inspector shall either personally or through his deputy or deputies, inspect any nursery, fruit or garden plantation, park, cemetery, private orchard, public places and any place that he has reason to suspect is infested with San Jose scale or other injurious insects or fungus diseases. For this purpose he or his deputy or deputies shall have free access to any field, garden, packing grounds, buildings, cellar or other place where his duties of carrying out the provisions of this act shall call him, and any person attempting to hinder, thwart or defeat such inspection by misrepresentation or concealment of facts or conditions or otherwise shall be liable to the payment of penalty or forfeiture as hereinafter provided.

SECTION 2. There is added to the statutes a new section to read: Section 1494—1a. It shall be unlawful for any person, firm or corporation in this state who is engaged in the growing and propagation of trees, shrubs, plants and vines for sale, to knowingly permit any San Jose scale or other dangerous insects or fungus diseases to exist in their nurseries or on their property adjacent to the nursery. It shall also be unlawful to sell or offer for sale any such infested or infected stock.

SECTION 3. Sections 1494—3 and 1494—4 of the statutes are amended to read: Section 1494—3. If the inspector is carrying out the provisions of sections 1494—1 to 1494—10n, inclusive, shall find upon examination any orchard, small fruit plantation, park, cemetery or any public place infested with San Jose scale or other injurious insects and fungus diseases, he shall notify the owner or person having charge of such premises in writing to that effect, and the owner or person having charge of the premises shall within ten days after such notice cause the removal of such trees, plants or shrubs, if incapable of successful treatment, otherwise cause them to be treated as the inspector may direct. Failure to comply with this section shall subject the person failing to a penalty or forfeiture as hereinafter provided.

Section 1494—4. Whenever any trees, shrubs, plants or vines are shipped in this state, or into this state from another state,

**CROSS POLLINATION IN FRUIT PRODUCTION**

By H. G. SMITH.

Fruit production depends upon sexuality. Sexuality signifies the presence of male and female elements. The union of the male and female elements or the transference of pollen to the pistil of the flower is pollination. Failure of pollination means failure in fruit production. (There are many orchards where failure has resulted because of this fact. Examples of such are: bolecks of Baldwin and Greening apples; Kieffer and Bartlett pears; and plums and prunes. Such orchards have in most instances produced only three crops in twenty-five years.) Now most flowers of any variety have both male and female organs. Consequently, you may immediately come to the conclusion that pollination must surely occur at all times. This is not the case. Two varieties based upon pollination exist. They are self sterile and self fertile varieties. A self sterile variety is one which is unable to fertilize its pistil with its own pollen, while a self fertile variety is one which is able to perform this function.

Self sterility and self fertility are not constant with any variety so far as known at the present time. Conditions; such as, location, adaptation to soil and climate, and state of nourishment are important factors any one or all of which may make a variety self sterile. Thus, Bartlett and Kieffer pears are often self-sterile, but there are orchards of both which are self-fertile. The same is true with many other varieties of fruits.

Experiments have been made with pears, plums, apples and grapes to determine which of these respective fruits are self-sterile. I will not attempt to give the varieties of each but only the number. Of one hundred forty-five varieties of grapes at the Cornell Station, eighty-six were found self-sterile, and fifty-nine partly self-sterile. At the Oregon station, of eighty-seven varieties of apples, fifty-nine were found to be self-sterile, fifteen were self-fertile, and thirteen were classed as partially self-sterile. At the Vermont experiment station all classes and varieties of native plums were found to be self-sterile with few exceptions, the Japanese plums were often found self-sterile but this sterility varied with the season, even being self-fertile in some. No experiments were performed with the Domestica group, but enough reports were received to show that these, too, are often self-sterile. All orchards of the different classes mentioned have bloomed abundantly and yet may have failed to set fruit.

What then are the factors which have caused non-pollination. They are these: first, difference in time of maturity of stamens and pistils; second, disability due to structural conditions, (that is, the pollen may be imperfect as with the grapes or the pistil may be malformed as is the case with certain varieties of plums); third, absence of stamens. As an example of this, take the strawberry. Those who are familiar with the strawberry well know



that pistillate and staminate varieties must be planted alternately if a crop is to be expected from the pistillate sorts, and when this is done the most abundant crops are produced.

There is still another factor which applies to the three factors of non-pollination already named and also applies to flowers which are seemingly perfect. It is mutual affinity between the pollen and the pistil.

Lack of affinity and lack of simultaneous blooming periods are the two most important causes of self-sterility or lack of fruit production. There seem to be different degrees of mutual affinity between the pollinizer and the self-sterile variety. Waugh and Kerr found that the mutual affinity between the Whitaker plum and the Wild Goose plum was a zero quantity. Other results obtained were that self-sterile varieties demand cross-pollination also because of lack of affinity. Consequently the conclusion, lack of affinity demands cross-pollination.

Cross-pollination demands: simultaneous blooming; affinity of varieties, proper conditions at blooming; and proper means of transference of pollen. Simultaneous blooming is essential for the only way in which a pollinizer can make a self-sterile variety fruitful is by supplying it with pollen. If it is to supply it with pollen it means that the pistils of the self-sterile variety must be receptive when the stamens of the pollinizer are ripe, which is possible only with simultaneous blooming. The comparative blooming of varieties is more or less of a local problem, because of local conditions such as climate, altitude and environment. The blooming period may not only be hastened or retarded but the order in which different varieties bloom may be disturbed. The proper conditions at blooming can be best expressed negatively. Long, rainy, cold moist periods of three or four days are not desirable. The transference of pollen is a very important feature in pollination. The two factors which transfer pollen are the wind and insects. Many think that the wind is the more important of the two. This is not true as demonstrated at the Oregon experiment station. For example, only six pollen grains were found at the end of 24 hours on a glass slide one inch wide and three inches long placed twenty feet from the trunk of the blooming tree. Glass slides placed at different distances helped prove the above result. But more conclusive than this is the experiment with two apple trees comparing wind and insect pollination. Fifteen hundred blossoms on a seven year old tree were emasculated and only five set fruit. During the time the pistils remained receptive only eight bees visited the tree. More than twice that number were seen on the tree twenty feet distant in one-half hour. Is this not evidence enough to show that pollen is not transmitted through the air in sufficient quantities to insure cross pollination? The conclusion for every fruit grower should be, have an apiary or let the neighbors have one for his benefit.

I have mentioned thus far benefits of cross-pollination in self-sterile varieties. What are the benefits of cross-pollination in self-fertile varieties, if any? The experiments at the Oregon station are conclusive as to the results. In these experiments the self-fertile varieties, Spitzenberg and Newtown were used

country or province without a valid certificate plainly fixed on outside of package, box or car containing the same, showing that the contents have been inspected by a duly appointed state or government official, and pronounced apparently free from San Jose scale or other injurious insects or fungus diseases, the fact must be promptly reported to said inspector by the railroad, express or steamboat company, or other persons carrying the same, with the statement of the source whence such articles came and the party to whom they are addressed. Further, said carrier shall refuse all such shipments of nursery stock. Failure to comply with this section shall subject the person or the carrier so failing to a fine of not less than fifty dollars nor more than one hundred dollars.

SECTION 4. There is added to the statutes a new section to read: Section 1494—5a. Nurserymen shall make application to the state orchard and nursery inspector for inspection of their stock, on or before June 15th of each year. Failing to comply with this section said nurserymen shall be liable for extra charges to cover traveling expenses of the inspector.

SECTION 5. Section 1494—6 of the statutes is amended to read: Section 1494—6. 1. Said orchard and nursery inspector shall cause to be issued to owners of any nursery in this state after the nursery stock has been inspected by authorized official inspectors and found to be apparently free from San Jose scale or other injurious insects and fungus diseases, a certificate setting forth the fact of such inspection and the number of acres or fraction thereof inspected and may issue a license permitting any nursery so inspected to offer for sale nursery stock in this state. Said license and certificate shall be valid not to exceed one year from October 1st, unless revoked for cause by the state inspector.

2. The cost of each such license shall be five dollars for nurseries occupying less than one acre and ten dollars for all nurseries occupying more than one acre, except as follows: In case only small, cane or bush fruit plants are propagated for sale, a fee of five dollars shall be charged for less than five acres, and ten dollars for five or more acres. Wilful misrepresentation or false declaration of acreage, or character, or variety, or quality of stock, in a nursery or offered for sale, shall constitute a misdemeanor punishable by penalty or forfeiture as hereinafter provided. All persons, firms or corporations selling nursery stock in the state shall furnish the chief inspector with copies of all their literature which is printed or mimeographed, including catalogs, price-lists, order forms, contracts and agreements which are furnished for the use of agents or customers or both.

SECTION 6. There is added to the statutes a new section to read: Section 1494—6a.

Any person, firm or corporation, other than an agent working on commission, engaged in selling nursery stock in this state, that grows no nursery stock shall be considered a dealer and must secure a dealer's license by paying a fee of five dollars and furnishing a sworn affidavit that he will sell only stock which has been duly inspected and certified by an official state inspector. Failure to comply with this requirement shall subject any person, firm or corporation, so failing, to a penalty or forfeiture as hereinafter provided.

SECTION 7. Section 1494—7 of the statutes is repealed.

SECTION 8. There is added to the statutes a new section to be designated and to read: Section 1494—7. Any person, firm or corporation outside the state desiring to sell nursery stock at retail, through agents or by mail order in the state, shall first obtain a license by the payment of five dollars and by filing a duplicate copy of their official certificate signed by the state inspector. Nursery firms outside the state that carry on an exclusively wholesale business in the state are not required to obtain a license, but shall file a duplicate copy of their official certificate signed by the chief inspector.

SECTION 9. There are added to the statutes two new sections to read: Section 1494—7a. Agents selling nursery stock on commission in the state for any person, firm or corporation located in the state, or outside the state, shall be required to carry a duplicate copy of the license held by the principal. Said duplicate licenses to be issued only by the official inspector after receiving from the principal a signed statement that the applicant is a bona fide agent working on commission. The cost of each duplicate license issued shall be one dollar.

SECTION 1494—7b. Any person, persons or company importing plants or nursery stock from foreign countries shall notify the inspector of such shipment, its date of arrival, nature of the shipment, and shall hold such shipment unopened until duly inspected and released by the inspector. If acting as agents for a party or parties holding a license, they are required to obtain agents' duplicate license. Failure to comply with this requirement shall be subject to payment of a penalty or forfeiture as hereinafter provided.

SECTION 10. Section 1494—8 of the statutes is amended to read: Section 1494—8. Any person or company who shall engage in the selling and shipping of fruit trees in the state is hereby required to attach to each package, box, bale or carload lot, tags on which a certified copy of their valid license shall be printed. The use of tags bearing an invalid or altered certificate is hereby prohibited. Any person, firm or corporation failing to comply with this provision shall be liable to the payment of a penalty or forfeiture of license as hereinafter provided.

Spitzenberg fruits resulting from self-pollination averaged only 100 grams; these resulting from cross-pollination by Newtown, 126 grams; Arkansas Black, 128 grams; Jonathan, 148 grams, and Baldwin 157 grams. Newtown fruits resulting from self-pollination, averaged 73 grams; cross-pollinated fruits with Bellflower, 104 grams, Spitzenberg 147 grams, Jonathan 162 grams and Grimes Golden, 173 grams. These results show that there is an increase in size due to cross-pollination due to mutual affinity, Grimes Golden being the most mutual to Newtown and Baldwin to Spitzenberg; and that the affinity of the pollen and the pistil of the same variety is far less than between different varieties. Self-fertile varieties then demand cross-pollination as well as self-sterile varieties. Darwin came to this same conclusion in 1859 when he said, "Nature abhors perpetual self-pollination. It is an interesting fact to note that the seeds of the respective crosses varied and that the variation closely followed that of the fruits; that is, the largest fruit usually contained the largest seeds."

What is the practical application of cross-pollination? Since self-sterile and self-fertile varieties are both benefitted by cross-pollination, plant several varieties. The Oregon station found for apples that alternate rows of trees of three different varieties suitable, making orchard management convenient, this being necessary for spraying and harvesting. Again, do not plant solid blocks. Some one may have this question in mind. What varieties shall I plant? Experiment stations are just beginning the study of this question, thus enough evidence is not at hand to give definite answer. All that can be said is make use of what has been done so far as possible and then give careful attention to blooming periods of different varieties in your own neighborhood. With strawberries a definite answer can be given. It is plant at least one male variety alternately with the pistillate variety.

From the discussion of the different factors to be considered in cross-pollination it is plainly evident that the problem is not a simple one, but one that needs study and skill when it is to become practically applied as well as when scientifically studied. Some one may say that the problem is too big for the orchardist; but it is the mastery of just such problems as this that has made the orchardist successful. The applying of the principles involved in cross-pollination will be just one more step in the direction of success in horticulture.

**Don't Forget the  
Oshkosh Convention  
August 16 and 17th**

### Questions and Answers

Q. What has become of the large number of seedling and new varieties of native plums that were formerly growing at Madison on the Experiment Station?

A. What has been said relative to the seedling apples applies equally as well to the seedling plums. Some six years ago there were probably over 1,000 plum seedlings at the station. In this length of time, notwithstanding the fact that owing to an unfavorable season last year, nothing whatever could be done, these trees have been reduced until only 20 remain. It is true that probably over 100 of the trees which have been removed were superior to 90 per cent of the named varieties which we have growing in this state, but the thing which we are seeking is something that is superior, not something that is nearly as good as some other variety. As with the seedling apples, these plums are being propagated with the intention of distributing them to fruit growers throughout the state in order that they may be tried out under conditions different from those in Madison before they are recommended for general culture. We are being handicapped again this year due to the fact that the frost in May destroyed by far the greatest part of the blossoms, and it may be that the work will be further handicapped owing to the brown rot which is giving some trouble since the recent frequent rains.

As to the new varieties of native plums which have been growing in the station orchard, would say that with the possible exceptions of Kieth and Cooper, there are none which show superior merit over the list which is usually given for this state as standard varieties. The station expects within the next year or so to get out a publication on the varieties grown and any opinions as to the relative merits of the various sorts.

J. G. MOORE.

Q. Why is it that you can kill mustard from a crop of oats and not injure the oats? What preparations

may be used for this purpose and how shall they be applied?

A. Mustard is a plant with wide leaf expansion even while young and practically all the leaves are exposed to the effect of the spraying solution. The leaves are also coarse in texture so that the spraying solution does not readily flow off but is held on the rough leaf surface. The absorption of the plant juices by the chemical causes the leaves to shrivel up and die, leaving the plant without the power to elaborate new food. Death of the plant results.

The oat plant, however, has very smooth, close grained and narrow leaves which do not retain the solution so readily. The growing point of the oat plant is also enclosed to a greater or less extent in the sheaths of the outer leaves and is thus protected from harm. It therefore continues to grow and in the course of a week shows practically no effect of the treatment. Solutions which may be used for the eradication of wild mustard may easily be prepared by any one. Among the solutions which will do effective work are the following:

Ferrous or iron sulphate at rate of 2 lbs. to 1 gal. of water.

Copper sulfate or blue vitrol at rate of 1 lb. to 5 gal. of water.

Common salt at rate of 2½ lbs. to 1 gal. of water.

Any one of these is effective when applied in a fine spray which will reach all parts of the plant and if the application is not followed by rain within twenty-four hours.

The solution is to be applied at the same rate in all cases, viz.: 50 gals. per acre, and may be used in any sprayer, either hand or power, equipped with nozzles to throw a very fine spray. Coarse drops such as are thrown from a large nozzle or sprinkling can are apt to glance off and leave the weeds undamaged.

PROF. A. L. STONE.

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Hardy Fruit and Ornamental  
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**The Coe, Converse & Edwards Co.**  
**FORT ATKINSON, WISCONSIN**  
**Wisconsin's Largest Nursery**

Q. Are any of the Wisconsin Experiment Stations growing seedling apples?

A. The Experiment Station has at the present time some 50 seedling apple trees. That is what is left of several hundred which were formerly propagated by Prof. Goff of the Horticultural Department. Year by year these trees, as they have come into bearing, have been gone over and tested with the intention that the worthless ones should be culled out and finally the best propagated for dissemination throughout the state.

One must remember in this connection that the work is necessarily slow as we do not believe in putting out a seedling which has not been thoroughly tested. The great difficulty with horticulture in the northwest at the present time is that there has been countless worthless seedlings thrust upon the people as superior varieties, until our list is encumbered with more worthless than worthy sorts. The Experiment Station does not care to be a party to such a condition, and therefore the reason for going so slow. It may be of interest to know that at the present time the station has about 1,500 one-year-old trees which it expects to disseminate in a year or so. However, these will not be put out until we are thoroughly confident that we have something worth while. J. G. MOORE.

Q. What are the elements that constitute "hardiness" or "tender-ness" in fruit trees? Is it because of the general structure of the trees or plant, too much sap, too little sap, too large or too small percentage of soluble constituents in the wood?

A. In answering the first part of this query would confine answer to "hardiness" and limit definition to capacity to endure cold. Different species vary in hardiness—each possessing inherent hardiness to a greater or less degree. Thus the apple can endure more cold than the peach, and the peach more than the orange. Different varieties of the same species can or may endure more cold than others may as the Duchess and McMahan apple endure more than the Baldwin or Winesap. Each individual of a variety can endure most when most perfect, i. e. when most

perfectly grown, containing the right elements in the right proportion as derived from a balanced ration. Maturity—thorough ripening—is the most important physical condition to produce hardiness. A. L. H.

Q. Does Section 1494-9 of the Wisconsin Nursery Inspection Law protect an unlicensed berry grower in selling (for an agreed price) plants to persons calling at, or sending orders to the farm?

A. This section plainly states "The selling or bartering of trees, shrubs, or plants by an unlicensed person or persons with a person or persons holding a license doing regular nursery business is prohibited by this act."

Sec. 1494-6 prohibits the sale in this state of any uninspected trees, shrubs or plants by an unlicensed person or company.

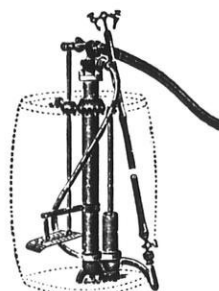
Strawberry plants may be exchanged in immediate communities without license, but solicitation and sale in any manner is prohibited.

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Plants for the Garden."**

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**J. E. MATHEWSON**  
Sheboygan, Wisconsin

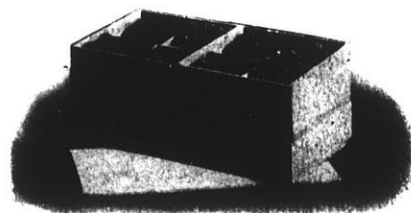
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success forced us to manufacturing on a large scale. You take no chances. We have done all the experimenting. Large fully illustrated Catalog and Treatise on spraying FREE.

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### THE AMERICAN ASSOCIATION OF NURSERYMAN

The association held its annual convention at St. Louis, Mo., June 14, 15 and 16. The meeting was attended by members from all over the United States, one lone representative being present from Washington state, while large delegations came from the Empire state, New England and the South. It was pleasant to see the familiar faces of Messrs. R. J. Coe and D. E. Bingham as representatives from Wisconsin. The principal topic for discussion was the nursery inspection law now pending before Congress, and a resolution was passed urging the defeat of the Symmons bill, owing to the fact that it places too much power in the hands of the Secretary of Agriculture and his bureau chiefs. Another resolution was passed, providing for test cases to be made of state laws that are deemed burdensome and unfair to nurserymen. Wisconsin has been one of the sinners in this respect, and must be prepared for an onslaught on its nursery inspection laws. About the only subject of purely horticultural interest was a paper read by Dr. J. C. Whitten, of the University of Missouri, giving results of experiments conducted on the make yourself generally at home. Fall versus Spring Planting. Dr. Whitten found that in every case that came under his observation, the fall transplanted trees made twice as much growth the first year as the spring transplanted trees, and the development of root growth was also much greater. Dr. Whitten recommends fall transplanting as far north as a tree has been proven to be perfectly hardy. The association elected J. H. Stanard, of Ohio, for its president and re-elected Mr. John Hall, of Rochester, its secretary. The next annual meeting will be in Boston, Mass.

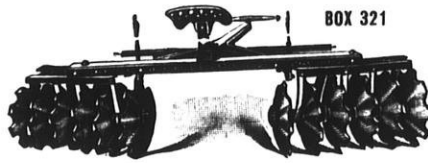
EMMA JACOBSON.

### ALMA CENTER

The Alma Center Fruit Growers' Association through Harry Van Gordon, manager, reports 7,713 cases strawberries handled for members at an average price of \$1.15.

An estimate of 700 cases shipped by individuals brings the total to 8,413 cases.

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Two-Horse Single Action Cutaway Orchard or Farm Harrow with Extension Head, Reversible; also One Horse Size. Also Double Action Steel Jointed Pole Cutaway Harrows. (Can be Extended.) For Orchard and Farm. Send for Catalogue. If a Fruit Grower, send for our New Catalogue of Fruit Growers' Supplies.

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Agent for the West

KINMUNDY, ILLINOIS

### NEW OBSERVATION ABOUT FROST AND ELEVATION

The writer has had an opportunity to observe the effect of frost in every part of the United States except the Pacific coast and the New England states.

It is a well known principle of physics that cold air falls and warm air rises, and it is a matter of general observation that the valleys, the depressions, ordinarily suffer much more from frosts than the hills and this is because the chilled air on the hilltops sinks into the valleys and pushes the warm air upward, so that it is easy to understand that the lower levels catching the cold air will freeze when the higher places are not affected.

Exceptions to this rule may be noted where a valley or basin receives warmer air currents from a body of water which sweeps the cold air onward. It may be noted that mere elevation without valleys or basins near by do not protect vegetation from frost.

G. H. TOWNSEND.

## The Great Northern Nursery Co.

### Sells First-Class

### Wisconsin Grown Trees

**Our Trees Live.** We had an opportunity to compare 500 of our Wisconsin grown trees with a similar lot of an Eastern Nursery. At the end of the season only 52 per cent of the eastern grown stock was alive, while 95 per cent of ours lived and grew. Moral: buy home grown stock and avoid loss. Our trees are **HARDY**, and our stock is **HEALTHY**. A comparison will prove that our stock has not the willowy and watery soft growth of southern or eastern grown stock.

Every tree and shrub is packed entirely under cover, free from exposure to sun and wind.

## Great Northern Nursery Company, Baraboo, Wis.

Write for Catalogue and Price - List.

## In The Rain Belt

Our nursery is located in the RAIN BELT. Abundance of rainfall and more coming as needed. Our stocks this season never looked so fine. You who planted drought injured stock last spring know well what healthy stock means for planting in our short northern summers. Our specialty is High Grade fruit stocks and shrubs. Send for Catalogue and give us a list of your wants. Can send views showing the thrifty growth and prove that we have the stock. We are growers, not dealers and jobbers.

## Henry Lake Sons Co., Nurserymen

Black River Falls, Wisconsin

### THE ACTION OF NITRATE OF SODA ON GARDEN SOILS

Several months ago a question was sent in by a member (name lost) asking about the effect on the soil of continual applications of sodium nitrate. The question was referred to Prof. F. H. King, who submits the following:

In regard to nitrate of soda, this is what A. D. Hall, Director of the Rothamsted Experiment Station, England, says when speaking of the use of calcium nitrate instead of sodium nitrate.

"One of the most characteristic effects of nitrate of soda as a manure, either repeatedly or in any quantity, is its deliterious action upon the texture of heavy soil; farmers have repeatedly observed that where nitrate of soda has been applied the land remains very wet and poaches badly if it is at all disturbed before it has dried. Market gardeners in particular have found this destruction of the tilth a serious drawback to its use. Some of the Rothamsted plots in the mangold fields, where very large amounts of nitrate of soda have been applied year after year for the last fifty years, show this deterioration of tilth in very marked fashion, the land being intolerably sticky after rain and drying into hard intractable clods, so much so that it is very difficult to secure a plant of roots unless the season is favorable."

Of course you will understand that on the lighter soils, where leaching is more extensive in our rainy seasons, there is not the opportunity for accumulation of the sodium carbonate to such an extent as to seriously affect crops as a poison, or to injure the texture of the soil.

#### MERRILLAN

The Merrillan Association reports a total of 5,930 cases strawberries shipped from Merrillan, 5,680 of which went through the association. Mr. E. W. Sullivan is manager.

#### BAYFIELD AND WASHBURN



Neither of these associations have reported.

## Door County Lands



ARE THE BEST IN THE STATE OF WISCONSIN





For Fruit Culture. Door County Orchards Pay a Revenue of from Five Hundred to Eight Hundred Dollars per Acre Annually. For Particulars Write : : : : :

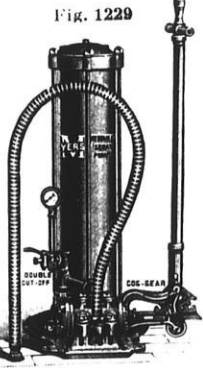

**DOOR COUNTY LAND CO.,  
STURGEON BAY, WIS.**

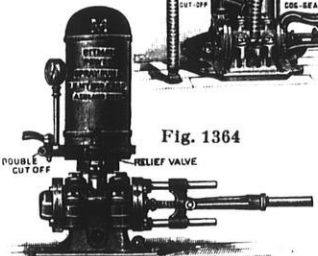
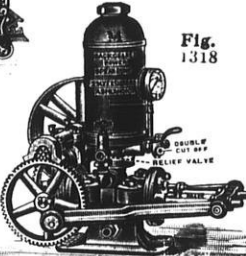
**Fig. 1291**  **Fig. 1317** 

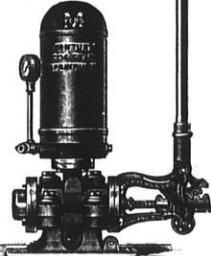
**MYERS**  
**SPRAY PUMPS**  
**Nozzles, Hose, Fittings, etc.**

**Fig. 653**  **Fig. 640**  **Fig. 1410** 

**Fig. 1199**  **Fig. 702**  **Fig. 1125**  **Fig. 1358** 

**Fig. 1229**  **Fig. 1363** 

**Fig. 1364**  **Fig. 1318** 

**Fig. 1363** 

When the season arrives you want to be able to SPRAY WITHOUT ANY DELAY OR ANNOYANCE. A single day's delay may prove costly. In order to be safe at all times you must have a dependable spray pump outfit. YOU CAN ALWAYS DEPEND ON THE MYERS. The above illustrations show only a few MYERS SPRAY PUMPS made in all styles and sizes with a full line of NOZZLES AND ACCESSORIES for complete outfits with which to meet every requirement. GET READY NOW. WRITE FOR OUR SPRAY PUMP CATALOG.

**F. E. MYERS & BRO., : : : ASHLAND, OHIO**

## NOT THE BIGGEST NURSERY PERHAPS

**BUT WE ARE DOING THE  
BIGGEST BUSINESS**

We offer the finest line of Native Shrub and Ornamental Trees in the State. You can have your choice in Fruit Trees, Wisconsin grown or from Western New York.

Attractive prices will be made to Market Gardeners and other large buyers of Nursery Stock.

**Our Catalog is an A B C Book**

in its simplicity and plain handling of Planting, Fruit Growing and kindred Subjects.

**THE HAWKS NURSERY COMPANY**  
**Wauwatosa, Wisconsin**

**FOR SALE**—Apples of New York, by Beach. 135 colored plates. 2 vols. Albany, 1905; \$7.50. Grapes of New York, by Hedrick. 100 colored plates. Quarto. Albany, 1908; \$5.00. Send for fine copies to John Skinner, 44 N. Pearl street, Albany, New York.

## FOR SALE

Fruit Farm of 40-acres five miles from city of Sturgeon Bay, one-half mile from water; thirty-two acres under cultivation, level, without stump or stone. Splendid fruit soil. Good frame house, log barn, well and windmill; 700 cherry, 800 apple set spring of 1911. Best bargain in Door county. Write

**BOX 535.**

**Madison, Wisconsin**

### AN EIGHTY ACRE FRUIT FARM

Can you give me the following information? What returns could be expected from a fruit farm handled in the proper manner, say eighty acres, planted with strawberries, currants, gooseberries, cherries, raspberries, blackberries, plums and apples? What I more particularly want to get at is what might reasonably be expected per acre from the above named fruits. I have in mind the establishing of a farm of that nature here and any information you can give me will be duly appreciated. I might say that I already have 200 cherries and 1,000 apples growing near Ashland Junction.

Ashland Co.

Eighty acres of land developed as a fruit farm will yield a very large income if successful. It will also require several thousand dollars capital to develop to a producing point but there is no other branch of agriculture that will yield as good and steady returns and I therefore advise you to proceed if you are satisfied that your land is all right. Here are a few figures as they occur to me now without looking up definite returns. Strawberries give returns one year after planting and will yield anywhere from \$100 to \$400 per acre, gross; \$200 is not unusual. The Sparta growers have estimated that strawberries cost 60 cents a crate, which includes everything, interest on investment, labor, picking, packages, delivery, etc., in brief everything over 60 cents is net. This will very nearly hold true of blackberries and other bush fruits except that the returns are often larger from these than from strawberries and further that two years is required before we get a full crop, sometimes three years, although partial crops may be had one year after planting.

Certain varieties of apples should do well there, viz., Duchess, Dudley, Longfield, Wealthy, Patten Greening, etc. Apples yield no returns whatever under three years and we cannot begin to count profits from an apple orchard much under six years. In the case of tree fruits, however, crops may be grown between the trees for three or four years which will offset

cost of cultivation, etc., in fact fruit growers sometimes make a profit on the orchard before it begins bearing a profitable crop. "C."

### WISCONSIN NURSERIES

Grow and handle all kinds of nursery stock. We employ no agents but sell direct. If in the market you can save money by buying of us. Get our prices.

**WISCONSIN NURSERIES,**  
Union Grove, Wis. W. S. Moyle, Prop.

Send For **PANSY GUIDE AND CATALOG**  
... Our ...

of Flower Seeds and Plants  
**FREE TO ANY ADDRESS**

**WILLIAM TOOLE & SONS**  
**PANSY HEIGHTS, BARABOO, WIS.**

## WANTED

To communicate with an expert apple packer, one who has had some experience in packing box apples. A good opening for the right party, Fall of 1911.

**Write F. Cranefield, Sec.**  
**Madison, - - Wisconsin**

## KNOX NURSERIES

(Established in 1861)

Make a specialty of **Cherry Trees**. They strongly recommend **One Year Cherry Trees** because they are stocky, well headed, well rooted thrifty and vigorous. Plenty of **Two Year** for those who prefer the larger trees. They also have a nice lot of Apple in northern sorts

**A trial order will convince  
any one of their quality.**

**H. M. SIMPSON & SONS**  
**Vincennes, Indiana.**