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Wisconsin horticulture. Vol. V September 1914/August 1915

Madison, Wisconsin: Wisconsin State Horticultural Society, September 1914/August 1915

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WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume IV

Madison, Wisconsin, ^{Sept.} August, 1914

Number 12

Farm Home Surroundings.

Wm. Toole Sr.

If we take a ride through any farm community, we note the difference in appearance of various farm home surroundings. Some are ideally attractive, others are commendable, while many leave much to be desired, of evidence of thrift and tidiness.

As we pass through different localities, we notice that there is an individuality about communities, giving marked opportunity for comparison.

It would be interesting and perhaps profitable, if we could trace to their source, the influences which have caused practical application of desires for improved conditions.

Quite often it will be found that one or two individuals in a community have been a leaven to spread the desire for more beautiful home surroundings. There is no doubt that the local and state horticultural, and other associations, have had a share in the aesthetic uplift.

Perhaps some good influence has emanated from our cities. Baraboo is a city of well kept lawns and tasteful gardens. In the surrounding country, we notice that lawns, shrubs and flow-

ers are the general accompaniment of farm homes. Near Madison the evidences are varied. A friend tells me that towards Mount Horeb and Verona, there

of culture and regard for the beautiful in farm life. In other directions where tobacco raising prevails, or where the chief aim is to produce milk for delivery



HOME OF J. E. BAER NEAR BARABOO.

"Quite often it will be found that one or two individuals in a community have been a leaven to spread the desire for more beautiful home surroundings."

are fine farm buildings, well kept fields and roadsides, with clean fence rows.

Wherever butter or cheese dairying, or general mixed farming prevails, there is evidence

to the city, there is an air of neglect and indifference to appearances. Perhaps many of these are tenant farmers. If tenant farmers show discouragement in their attitude towards their

surroundings, may not the fault in part rest with the land owners? If one has a mind to improve the appearance of his place, it would be well sometimes to drive by the home place, instead of driving in. Notice if the borders of the roadside drainage are neat and smooth. If not the rough sides of the ditches should be graded, so that the mowing machine can be driven over them.

When we were riding about, among the orchards of Sturgeon Bay last summer, a member of the party criticised the management of one place, because the field was being cultivated to the roadside, yet there was no condemnation of the next place, where stones, bushes and weeds adorned the roadside border of the field. If there is no fence by the roadside in front of the house—and there should be none—it is desirable to have the lawn kept neat and trim to the drainage course.

Much more often than is necessary, a culvert is placed at the front of the driveway next the road. A culvert in such a place is a nuisance, a harbor of weeds and vermin, an impediment to neatness, and should be removed if possible. In most cases it is possible. Neatness by the roadside need not hinder any necessary public travel.

If the turnpike has an earth surface, the proper use of the road drag, will suppress weeds, and keep the road in good condition for foot travel. Of course you have a few trees by the roadside. If not, then plant some, but not too many. From twelve to sixteen to the mile are a plenty. Trees by the roadside are of value only for appearances,—to give a touch of the picturesque to the landscape. Too many trees obscure the outlook, and are harmful to vegetation.

An occasional shady avenue of trees is interesting for variety

especially if on some other person's land.

A really fine specimen of an elm or oak, may be tolerated in the cultivated field, but the best place for such is about the home or in the woodlot or permanent pasture. If pasture or woodlot are hilly, a pretty touch of the picturesque may be given, by planting on prominent points, evergreens and birches. May we not derive pleasure from knowing that our place is not only attractive in appearance, but also that it is an important feature of the general landscape?



RESIDENCE HERMAN VOLL, BARABOO.

"If the building stands high there is good opportunity to use shrubs near the house."

Having given a general overlook to the place we may well turn our attention to the immediate home surroundings. Weed patches are unsightly, and their presence about the house is too often fostered by rubbish which should have been removed, and also by the open drain from the kitchen.

Have your own private graveyard, where you can bury useless trash which cannot be disposed of with a bonfire.

If the surface of the ground is cleaned up in the spring, the scythe can be used to secure neatness where farm implements must have temporary quarters through the summer. Flies and weeds are the invariable summer accompaniment of the open drain from the house. If you

have such by all means provide closed drainage instead. If this leads to placing a pump in the home connected with the kitchen all the better, but best of all is to provide running water with bath room and other sanitary arrangements. Such conveniences are worth many times their cost.

A lawn should be one of the accompaniments of a farm home. Have it in front of the house if possible, but have it even if there must be a complete change of present arrangements.

A patch of grass all cut up with plantings, is not really a lawn. The name implies an open space covered with grass. Your house and its surroundings should stand out as a welcome to yourself and your friends. It should fill your desires, that every time you approach it, you feel that there is no place like home. When you make your trips for inspection and comparison, notice not only what is commendable about other places, but also what should be avoided.

Also plan improvements of your own conception, that you may in time become a leader rather than an imitator. I will not here attempt to give full lists of material for planting, or directions for culture. Plenty of such information has been given in past volumes of our Wisconsin State Horticultural society reports, and previous numbers of our magazine, Wisconsin Horticulture. In a general way I will mention some things which will bear repetition. If when the lawn was newly made, depressions were caused by rain, you can with a wheelbarrow, shovel and good soil put on helpful finishing touches. The growing grass will soon cover all evidences of repair work. If your lawn is yet to be seeded, the leader to form a sod should be Kentucky blue grass, but be sure to include white clover. The

(Continued on page 10)

Orchard Culture as Practiced in the Kickapoo Valley.

By J. A. Harley, Sec. Kickapoo Development Co.

The visitor to the Kickapoo valley fruit district, for the first time, finds many things to excite his wonder and curiosity. After he has climbed the heights and has feasted his eyes on the grand panorama in the valley below, he turns to look over the orchards.

He is familiar with the general principles of orchard culture. He is thoroughly posted on the "sod

tions peculiar to the Kickapoo district.

Why cultivate? My readers will readily agree that the chief object of cultivation is to get results. The object, therefore, should determine the method to be used. There is no "best method" universally adapted to all fruit districts, and the successful orchardist is he who makes a study of the conditions of soil, climate, moisture and growth in his own orchard and adapts his methods of orchard culture to his own conditions.

grub out the stumps or plow the land. Being hardwood, the stumps rapidly decay and do not seriously interfere with the planting or cultivation of the young orchard.

Stump land cultivation is all hand work. A circle about four feet in diameter is kept spaded up around each tree and the crop of weeds and brush mowed down with a grub scythe. Following a year or two of this treatment, a large disc harrow is set to work and the ground prepared for seeding to clover. Hence-



KICKAPOO APPLE TREES, PHOTOGRAPH AUG. 14, 1914.

SPRING PLANTING

YEARLING

2 YEAR OLD

3 YEAR OLD

mulch" and "clean culture" methods, and when he discovers that neither of the so-called orthodox methods is used in the Kickapoo district he is naturally curious to know why. There is a reason.

Sod mulch. The old way was the easy way. Just seed down the orchard and leave it alone. In the Kickapoo district are several farm orchards and very good ones too, that have been brought up on the sod mulch diet. This method has many ardent advocates, who are fortified with facts and figures to sustain their arguments. But we will not argue with them. We believe that our method, which is the outgrowth of much study and experience, is better adapted to the orchard condi-

Clean cultivation, with some variations, intercropping, has been practiced to some extent in the Kickapoo district. The objections to this method for commercial orchards is that it is too expensive, produces an excessive wood growth and correspondingly retards the time of fruiting. Hence is not favored by commercial orchardists.

Clearing the land. To go back to the beginning, most of the land on which the young orchards now grow was a forest four years ago. To prepare this land for orchard purposes would seem a formidable undertaking. But not so. The underbrush is cut, piled and burned. The timber made into cord wood and carted away. Then the land is ready for planting. We do not

forth the orchard is handled in the regular way.

The Kickapoo method. Nearly all of the orchard tracts were seeded to clover last spring. There has been a good "catch" and the young clover will form a good cover crop for the coming winter.

Next season hand cultivation will be continued, the same as this year, and in addition alternate strips of the clover crop will be plowed under, and the soil harrowed. By this method one side of all the trees will receive machine cultivation. The following season the cultivated strips will be reseeded and the remaining clover strips plowed under. Thus clover and cultivation rotate in the young orchards.

What is the result? By plow-

ing under the clover, nitrogen is added to the soil, the amount of humus increased and soil erosion prevented. The trees get all the cultivation needed and make all the growth necessary. A new growth on the springlings of one to two feet and on yearlings of two to four feet is considered very satisfactory. This is the method generally followed in the Kickapoo fruit district for the cultivation of young orchards and the results are highly satisfactory.

Efficient Potato Spraying.

During the season of 1913 the New York Experiment Station undertook to demonstrate in farmer's fields the importance of *thorough* potato spraying. A small lot of plants in each of a large number of fields were sprayed carefully five or six times with bordeaux and paris green. In some of these fields the owner did more or less spraying and in some none was done.

The season proved very unfavorable for the development of blight and therefore unusually favorable for unsprayed potatoes. An early frost cut short whatever benefit was derived from the spraying. Yet there was an average increased yield in unsprayed fields of 17 bushels per acre or about 16 per cent, and in sprayed fields of 15 bushels or about 11 per cent. The most striking fact is that comparatively slight benefit was derived from spraying as practiced by the farmers themselves. Spraying more than any other work requires thoroughness to obtain results.

G. F. P.

The time to renew your membership is when you get the first notice. Your name is dropped from the mailing list within two weeks after this notice.

Experiences With Bulbous Creations.

By C. A. Hoffman, Baraboo, Wis.

About eighteen years ago, the writer, a life long lover of flowers, decided to investigate the merits of that section of Floral-dom, known as bulbous, or tuberous bloom.

He can yet distinctly remember the initial planting and expectancy. At that time especially in the Middle West, the novelties in bulb bloom were hardly obtainable. With the coming of the first spring my efforts were so well repaid, considering the scant variety I was able to obtain, that I made the promise, that another fall I would increase my plantings, and, as year after year went by, I became possessed of a mania which to this day has not been satisfied, and I am constantly adding to my original few varieties until they run now into the hundreds.

It is a safe statement, that aside from the perennials, there is no section of the floral family that will respond so generously, and gorgeously, to the efforts of the amateur, as that obtained by a liberal planting of bulbs. And now that all varieties are obtainable, at a very reasonable price, every flower lover should try a few at least, as they are so easy to grow and come at a time when no other flowers are obtainable, and again the beds used for the bulbs, can later be planted with annuals which will prolong the garden bloom from early Spring until late Fall.

The bulb family, of course, is divided into two, or more properly, three sections Viz:—Summer Flowering, and Spring, and Winter Flowering. Of the two latter this article will treat. As the summer of 1915 approaches I hope to be able to give the readers of Wisconsin Horticulture a paper on the summer flowering varieties, which, while beautiful, do

not give the satisfaction that the hardy Holland bulbs do. At no time of the year does one feel the need of flowers, to enliven and brighten the home, more than in the late winter and early spring when the lengthening days and brighter sunshine seem to call for their brilliant coloring, and at no time in all the year are flowers looked for more eagerly, or are more welcome in the garden, than when the budding trees and springing grass tell that summer is coming.

The plants commonly classed as Dutch Bulbs, are perfectly adapted to meet these wants. They can be so selected, as to varieties, and planted to furnish ornamental flowers throughout winter and spring. Many of them when planted out of doors, burst into bloom even before the snows of winter have departed. This is the case with Snowdrops, and Scillas, which are succeeded by the Crocus, Chionodoxia, Narcissus, Hyacinths, Tulip, Iris and others. No class of flowering plants is more ornamental than that produced from bulbs, while the culture necessary to develop them to the highest perfection, is such as can be performed by the most inexperienced.

Success with bulbs is then assured, while failure often attends efforts to produce a lesser effect from seed. The planting is best done during October, or about three or four weeks before severe freezing weather. With tulips however, I have planted when the ground was frozen an inch, or even two inches, and the bloom produced was equal to that of earlier plantings. This however, does not apply to all of the other varieties, some of which need planting as before mentioned, that the bulbs may make strong root growth and attach themselves to the soil, to better resist the effect of winter and prepare themselves for an early start in the spring.

Dutch and other bulbs are not

only attractive in the open, but also in the conservatory and in the dwelling. The varieties, for forcing for winter bloom in the home, give endless pleasure and no home, no matter how unpretentious can well afford to be without them. Again all varieties, even of a single group, do not force well and many dealers, either from ignorance or in order to make a sale, cause a corresponding failure to their patrons by sending out bulbs which will not give proper results when forced. On account of the limited time allotted me I cannot name the varieties which are best adapted to house culture or forcing.

It is my intention in a subsequent paper to give the varieties which force well and which will amply repay the trouble and expense incurred. These Dutch Bulbs extend the season of flowers through the months of frost and snow, and maintain the foliage of June amidst the rigors of December, and on into the spring. Let me here remind you that many dealers offer bulbs at exceptionally low prices.

These are usually the clean-up of the thrifty Dutch growers, inferior in every respect, and should be avoided, as they rarely give satisfaction at the hands of experienced growers and certainly would prove a failure with the amateur. This lesson I learned through very expensive experience, and for a number of years I have bought only the cream of the crop of the largest growers in Holland. While considerably more expensive, they have amply repaid in results. We can and do grow bulbs in this glorious land of ours yet the stock does not compare with the bulbs we import, and in offering to the general public we advise the purchase of imported Holland Bulbs of top size or first quality.

With the passing of spring, after admiring a friend's garden, have you not often said, "We

shall have a bed of hyacinths or tulips next year"? Undoubtedly you have promised yourself that pleasure another season yet when the succeeding spring came found that promise unfulfilled. It will soon be time to keep that oft repeated promise. Do not neglect it this season as you will be repaid many fold by keeping it. It is realized that there is required something to lend dignity to the early spring surroundings as well as to scent the morning air with exquisite perfume. The Crocuses scattered haphazard about the lawn, have just finished their spring announcement, and are disappearing beneath the green sward that so intimately responds to the swish of the lawn mower, to become recharged for next spring's informal opening.

The Scillas, Snowdrop, and numerous other early-flowering bulbs are likewise departing and spring is soon in earnest. Single early tulips planted here and there along the border, contrast their brilliant hues in the sunlight, with the now-budding shrubs, between which may be seen, in all its elegance, the Daffodil in its many forms. The beautiful large leaves of the Darwin and Cottage Tulips are just beginning to rise here and there in the herbaceous border, or in an occasional clump in the garden. These announce the beginning of May. They will soon be at their gorgeous best. A few cut and placed in a vase lend a welcome to the living room. Now is the time to prepare.

SOME PRACTICAL SUGGESTIONS ABOUT PLANTING AND CARING FOR BULBS.

The window culture of Hyacinths, Tulips, and Narcissus is very popular, and presents a most attractive way of raising these plants, which by their beauty and fragrance grace our living rooms in winter. The general treatment of these different kinds of bulbs is the same.

A light porous soil just suits them—some garden loam, leaf mould and sand mixed together. Use five inch pots for Hyacinths and Narcissus. Place some pieces of broken pot in the bottom so as to secure free drainage. It is well to soak the pots in water for some hours before using that they may be damp and not absorb the moisture intended for the bulbs. Fill the pots up to about two inches from the top, set a bulb in the center of the pot, then fill with soil until the bulb is about two-thirds covered. Rap the pot down once or twice on the table or bench so as to settle the soil and bulb down well. Tulips should be planted the same way, only there may be as many as five or six bulbs in a five inch pot, and six or eight in a six inch pot, and they can be buried somewhat deeper in the soil so that only the tips show above the surface.

At least three-fourths of an inch of space should remain between the top of the soil and the rim of the pot in order to hold water, whenever watering is necessary. When potting is finished as above described, give water sufficient to wet the soil all through.

ROOTING THE BULBS

The pot should now be placed in a dark room, or in the cellar to remain several weeks while the bulbs are making roots. I find that ten to twelve weeks is often necessary to give sufficient root growth to force the bloom through the throat of the bulbs. Even should top growth become profuse do not take out of the dark under ten weeks. Occasional watering is necessary that the ground may be kept moist at all times. After ten weeks some will show signs of leaf growth and these can be taken up first to the semi-light, while the others are left to bring out later, thus causing them to bloom at different times successfully over a period

of a number of weeks. In bringing bulbs to the light do not give direct sunlight until the foliage regains a healthy green hue then give all the sunshine possible and water freely.

When they have thus been brought to bloom, the flowers will last much longer if placed in a cool room or on a window ledge. Bulbs can be planted in boxes in the same way as above described.

BULBS IN THE GARDEN.

All hardy bulbs do well in ordinary garden soil if it is dry, that is if water does not lie on it in the winter. A compact clayey soil may be improved for bulbs by mixing with it a quantity of sand. A sandy loam is all that is desirable. Well decomposed stable manure, in generous quantities, spaded in deeply so as not to come in direct contact with the bulbs, is very desirable. When planting a large number in a border or bed it is well to remove entirely the upper layer of soil to a depth of four or five inches and then spade the lower soil to a good depth. Rake it smooth and level and if possible spread over the surface a layer of sand an inch in depth. This provides a bed for the roots to run in freely and enables them to make a vigorous growth from the start. The sand is not absolutely necessary, but if convenient to do so it is an advantage. The largest bulbs should now be set on the bed, from four to six inches apart, and Crocuses, Snowdrops, etc., about two inches apart, and when all are in place the surface soil that was removed is gently spread over them without disturbing them.

At the North bulbs should be planted from the first of October until the end of November, while at the South, November will be early enough.

AFTER THE BULBS ARE PLANTED.

Before hard freezing weather comes, the bulbs will need to be

covered with hay or litter (I do not advise leaves), enough to prevent the ground from freezing much, for the bulbs are injured by the movement of the soil that takes place when the ground thaws, tearing or straining the roots, and enfeebling the plants. Early in the spring most of the covering can be removed, leaving a little over the bed until the leaves begin to push and then clearing it all off. Do not cultivate your beds in the spring.

AFTER THE BULBS ARE BLOOMED.

Bulbs in a shrubbery border may be left after blooming without disturbing and each spring they will renew their growth and bloom. The last of May, or early in June, light rooted summer blooming plants can be set between the bulbous plants or the bulbs, can be carefully lifted, taken away and placed in a trench previously prepared for them in a half shady place where they can remain until the foliage has decayed, when the bulbs can be removed from the soil and placed in a dry, dark, airy, cool place, to remain until the time for planting in early autumn.

Should any of my readers of Wisconsin Horticulture, desire more definite information on the handling and curing of bulbs, I publish a booklet containing complete information which I will be glad to send them, without cost, upon request.

Onions should be harvested and put on the market as soon as possible. Pull and throw three or four rows together to dry and then clean, and market in 100-pound sacks.

Some folks have had early corn several days in advance of their neighbors because they started it in paper pots or boxes in the cold frame. Many garden vegetables may be successfully treated in this way.

The Apple and the Public.

Jos. A. Becker

Nobody eats oatmeal anymore, though it is probably the best of breakfast foods. Everyone buys the brands that are boomed in the advertising columns. Such is the strength of modern advertising. The consumer today is the objective of vast amounts of this class of advertising, put forth largely with the simple policy of disposing of a single article of consumption. Of late, however, a new field of advertising has sprung up, whose policy is broader, more unselfish, in fact, educational. In its very nature this work must largely remain as a function not of the individual, but of organizations, large corporations, or of newspaper and magazine policies. We have, as a conspicuous example of corporation advertising, perhaps not wholly unselfish, but showing at least a definite broad policy, the Agricultural extension work carried on by the Jim Hill railroads. The Saturday Evening Post's and Country Gentlemen's never ceasing energy in keeping before the public the benefits to be derived from the Parcel Post, shows an editorial policy educational in purpose and effect.

Just how much of this sort of thing has been done as regards the apple? How far have we gone in making the apple attractive to the public? To what extent have we sought to impress upon the consumer the value of the apple on the table or in the kitchen?

First we have our county and state fairs, our horticultural exhibits, and the like. Here an opportunity is given to see the apple at its best, to view uniform samples of highly colored and tempting fruit. The educational and advertising value of such exhibits must always remain in a direct relation to the size, variety, and fineness of the fruit displayed, as well as to the size and importance of the exhibit.

The wonderful display of Wis-

consin fruit in the windows of Gimbel's at Milwaukee last year was surely educational to those of the passing crowds who stopped to see the display, to note the variety names, and compare the size and coloring of the standard fruits.

Our western growers have gone a long way toward making the public want their apples. The popularity of their highly colored fruit and neat uniform packs with their flaring labels is attested by the relative prices received. Years ago when the American family lived in a roomy house, the barrel was the right package for the apple. It held a quantity that could be stored in a cool cellar for winter use. As homes grew smaller, and families came to live in flats, and a retail trade developed, the bushel box became the logical package. Today indications are that even a smaller package is needed, and peck boxes of corrugated papers are being used by some eastern growers. Putting the apple in a pack small enough to suit the needs of the smallest buyer is only one of the many ways open to encourage the greater consumption of the apple.

The International Apple Shippers' Ass'n. has recently been doing some extensive advertising of the apple with the proceeds of stamps purchased by growers and placed upon every package of apples sold. Perhaps results are or seem slow in coming, since their advertising is not of the startling variety, but rather the continued hammering brand, the sort that eventually drills itself into the readers mind and stays there as a definite lasting impression. Herein lies an opportunity for the advertising managers of the large co-operative associations. The universal adoption and popularization of the slogans,—“An apple a day keeps the doctor away,” and “No child should go to school without an apple,” is particularly to be de-

sired, because a catch phrase of this nature oft repeated finally brings belief.

Country wide observance of “apple day” by the retailers and middlemen should be brought about, since there are more retailers than growers and a correspondingly greater chance for good. Suggestions offered and practiced now on a small scale are the publication of literature on the important phases of proper storage and preserving of the apple and the distribution of sample packages containing a number of varieties in an attempt to secure a select trade. By this last method even the most finicky of tastes might be reached and a steady consumer result.

The last method of securing greater consumption and the most effective surely must be in the apple itself. High quality in the apple and the elimination of worthless low quality stock will be the final test of its fitness for an every day demand by the consumer. As we educate the public to consume more apples, we will of a necessity educate it to want good apples. We may make a man believe that “an apple a day keeps the doctor away,” but we cannot make him practice it on Gano and other low quality fruit. Sound handsome fruit well packed catches the eye of the housewife and a pleased customer is a pretty good asset for the grower. Can we please without giving quality as well as looks?

Experts are freely predicting an over supply of apples in the near future due to the enormous planting of the past ten or fifteen years. When the pinch comes from over production, what will be the chance for profit to the producer of the low quality apple in dealing with an educated public? Already the market begins to discriminate against this stock. Compare the quotations on any day for bananas and Bens. The poor qual-

ity apples now on the market may be better producers and net as much to the grower, but is he justified for this reason in undermining the market for the apple; in placing at a much more distant date the ideal of an apple a day for every one, or is he going to see that the salvation of the apple industry lies with himself in doing his share toward increasing consumption by educating the public to want his product, the apple, a handsome, well packed, tasty, high quality fruit.

A Bound Volume.

A few copies, twenty to be exact, of Volumes I, II and III of Wisconsin Horticulture have been bound in one cover and fifteen of these are hereby offered for sale at one dollar each, less than cost of binding and postage. The volumes are not indexed but as soon as funds are available an index will be prepared and mimeographed. The cost of preparing the index will be charged to the magazine fund and copies furnished for actual cost of reproduction, not to exceed 10 cents.

It may be recalled that Wisconsin Horticulture was born Sept. 1910. This volume is well worth a dollar.

A Centennial Orchard.

The oldest orchard in Wisconsin so far as the records show, is in Crawford Co.

In the office of the County Recorder of Crawford County, for the year 1824 there is recorded the transfer of the “orchard farm”. How old the orchard was at the time of transfer is not recorded, but it is safe to assume the orchard was at least 10 years old at the time of transfer, making the age of the trees today one hundred years old.

Come on now Bayfield can you beat it.

J. A. Harley.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 24 E. Mifflin St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second class matter May
 31, 1912, at the postoffice at Madison,
 Wisconsin, under the Act of March 3,
 1879.

Advertising rates made known on ap-
 plication.

Wisconsin State Horticultural Society
 Membership fee fifty cents, which in-
 cludes twenty-five cents subscription
 price of Wisconsin Horticulture. Re-
 mit fifty cents to Frederic Cranefield,
 Editor, Madison, Wis.

Remit by Postal or Express Money
 Order. A dollar bill may be sent safely
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Iris may be transplanted now
 to good advantage.

Lawn grass may be sown now
 or early in September, provided
 the ground is moist enough.

Eighty-one county and district
 fair associations receive state aid
 and twelve of these hold fairs the
 same week as the state fair. Sim-
 ply shows that competition is
 strong.

Have the weeds been mowed
 along the roads and in out-of-
 the-way places? If they are kept
 out of the way a few years grass
 will take their place. It is not
 only useful but looks better.

New Rules at State Fair.

Members who plan on exhibit-
 ing commercial apples at the
 State Fair please note the rules
 p. 168 State Fair premium list.

"Barrels must be Wisconsin
 standard be packed and headed
 at orchard, and must not be op-
 ened before being judged."

"Box apples must be shown in
 a standard apple box and packed
 according to some standard com-
 mercial system, with covers in
 place and securely fastened until
 judged."

State Fair.

This is the year when every-
 body should take or send an ex-
 hibit to the state fair.

The management has encoun-
 tered about as much hard luck
 this year as can conveniently be
 packed into one basket.

First in May a cyclone ripped
 gaily across the grounds from
 northwest to southeast leveling
 the big cattle barn and several
 other smaller buildings.

Several weeks later a fire,
 starting in the grand stand
 swept from southeast to north-
 west cleaning up all that was left
 by the cyclone including the Art,
 Horticultural, County, Univer-
 sity, Womans, Fisheries, Poultry
 and a few more lesser buildings,
 among them the Farmers Home
 dining hall. From the ruins of
 the latter, it is reported, several
 1913 beefsteaks were recovered
 practically untouched.

Now here comes the best part
 of the story: the fair board has
 rebuilt the cattle barn and let
 contracts for two brick and steel
 buildings each 75 by 200 feet, to
 house the departments burned
 out. Horticulture will be grant-
 ed a liberal part of one of these,
 probably one-half, sharing the
 building with Art and Womans
 Work.

We will have the very best that
 the fair board can give both as
 to space and good will, in fact
 Horticulture can get anything it

asks except possibly a deed to
 the grounds.

This being the case it is up to
 us to "make good."

Come to the fair and bring
 along fruit and flowers. This is
 the year of all years when the
 Horticulturists of Wisconsin
 should use their utmost efforts to
 help the State Fair. Don't hold
 back because a few buildings
 burned, new ones are being built
 and will be ready in time. Be
 loyal to the Fair, lend your help
 and encouragement to every de-
 partment of the fair. The Board
 has been more than liberal to us
 in the past and now is our chance
 to show our appreciation. Be on
 hand with a big exhibit. The so-
 ciety will be represented, right
 up in front in the middle of the
 hall as usual.

The Benefits and Disadvantages of the Sod Mulch System of Orchard Soil Management.

Paul Bergmann.

The sod mulch system is one in
 which sod is grown in the or-
 chard, and none of the grasses
 produced are removed. The sys-
 tem followed is to mow the grass
 and allow it to lie wherever it
 falls, or to place it around the
 trees as far as the roots extend.
 If this is not sufficient, other ma-
 terial, as straw and manure is
 added.

The disadvantages of this sys-
 tem are many as is shown by the
 experiment conducted by the
 Geneva Experiment Station of
 New York. In this experiment
 the Geneva Station used the
 Aucter orchard, which is situat-
 ed near Rochester. The orchard
 consists of about five and one
 half acres of Baldwin apple
 trees, set forty feet apart and the
 trees were twenty-six years of
 age when the test began. The or-
 chard was divided through the
 middle so that one hundred and
 eighteen trees were in a sod
 mulched area and one hundred

and twenty-one on a tilled area. All the trees were on the same kind of soil so that none were handicapped in that respect. The test was conducted through a space of five full seasons, with results that were favorable as a whole, as there were no crop failures, and the interference from insects and diseases was not very great.

The first results to be considered are the effects on the trees which the station reports were very noticeable. The cultivated trees showed more uniformity, were larger, showed a much greater new growth, both in the number of twigs and in their size and length. The cultivated trees were practically free from dead wood and were noticeable as far as the orchard could be seen for that indescribable, rich, clean, full, glistening, smooth-farked appearance that denotes perfect health and vitality. While the trees in the sod on the contrary lacked so many of these indexes to vigor that anyone familiar with healthy trees would be dissatisfied with these unthrifty looking ones.

The growth of the apple trees under the two methods as compared with the average gain in diameter of trunks, was for the sodded trees one and one-tenth inches and for the tilled trees two and one-tenth inches. The average annual growth of the laterals for the sodded trees was three to four inches and for the tilled trees six to seven inches. As the new growth was compared, weights were taken of equal numbers of the largest new growths of all the trees and it was found that the weight of the new growth of the tilled trees averaged three times as heavy as that from the sodded trees. Showing a strong testimony of the better health of the tilled trees.

The trees in the tilled orchard showed very uniform and symmetrical heads, while those on

the sod showed very great irregularities. The foliage of the tilled trees was a dark, rich green, indicating an abundance of food and moisture and good health, while the pale sickly foliage of the sodded trees suggested drought, starvation, and a low degree of health. The leaves of the tilled trees were also larger and of better quality. The leaves of the tilled trees remained green a week to ten days longer and opened a few days earlier than those of the sodded trees.

This earlier falling of the leaves of the sodded trees, however, gave the sun more of a chance to give more color to the apples, thus giving the sod mulch a small advantage. The yield and grade of the apples decreased every year in the sodded plot, while it is increased in the tilled plot. The size and quality of the fruit was greater in the tilled plot. The tilled plot was found to be the most profitable of the two, even if it was a little more expensive to operate.

These results also showed that the tilled trees had more available plant food and moisture, while the trees in the sod suffered from the lack of food, as the grass roots ate at the first table and the trees starved on the crumbs. Another disadvantage of the sod mulch is that it affords a good harbor for insects and other orchard pests.

The advantages of the sod mulch system are few. The main advantages are that it prevents the leaching of the plant food from the soil, prevents the washing of the orchard soil, and seems to hold the fire blight in check, as there is more fire blight on cultivated soils. It is claimed to be the least expensive, which it is, but is not the most profitable. It is also claimed to hold soil moisture, but it has been found that it is not the best system of conserving soil moisture. Its plant food depleting power

may be brought into use where the trees are likely to overstrain themselves in too vigorous a growth of wood and fruit. The sod may also be used for pasture for sheep, hogs and hens.

I have given the disadvantages of the sod mulch system only in an apple orchard, but it has been found out by practice that the sod mulch is still more poorly adapted to plums, cherries, pears and peaches.

Are You a Grouch or a Booster?

We hear much grumbling among the many, because in all public affairs there are certain individuals who are always appointed on the program, or given place on the important committees. The remark is frequently heard, oh, Blank has a pull on the managers, or Mrs. Jones is always crowding in everywhere.

Both statements contain more or less truth. Mr. Blank has a pull, because he is an interested worker. He can be depended upon to do all that the occasion requires and a little more. He will devote time, labor and thought to the promotion of public interests and considers no efforts wasted that are put forth to promote community interests.

Mrs. Jones can be relied on to accept any call that is made in the interest of better home life, better schools and better social conditions. She considers it a part of her life work to help promote any project which will in any way help to build up the social life and keep the wheels of progress turning for better conditions in the community where she resides.

Mr. Grouch stands back looking ugly and growls out that he has no time to fool away running after other people as Blank does. He has enough to do to attend to his own business. That is all right if he wishes to devote himself entirely to his own affairs, but he should be willing to ex-

tend the glad hand of fellowship to those who are devoting valuable time to the promotion of public interests.

Mrs. Jones should receive all the assistance possible instead of being obliged to endure the stinging remarks of those who do not care to exert themselves for the benefit of mankind.

She would be very glad to receive any helpful suggestions from any one who is interested, as no one head contains all the wisdom and no one person can do all that is necessary to work out successfully any one of life's problems.

Mrs. L. H. Palmer,
Baraboo, Wis.

(Continued from page 2)

presence of this legume makes a useful blending. The clover goes and comes again, and helps to give heartiness and fertility by gathering nitrogen for the future use of the grass. Shrubs and herbaceous perennials should be an accompaniment of the lawn but not within it. These two classes group and blend well together. When planting trees or shrubs, always consider what may be hidden when looking either towards the house or from it, when they have attained their future size. When plantings have grown up they sometimes have been placed so that the residents are shut in from a view of what is going on in the world outside. Plant to round out the contours and give an appearance of completeness.

If a house stands high up there is good opportunity to use shrubs near the building. If your space for shrubs is extensive enough be sure to use some of our natives. Planted for ornament, sumac, elder, viburnums, the cornels and others look better in that way, than if allowed to grow in a fence row thicket. Most of our native shrubs grow too large for planting where space is limited.

Do not confine tree plantings to elm, maple, basswood and box elder. Leave the box elder for some one else. It is about the only deciduous tree which looks better trimmed to geometrical forms than in its natural shape. The oaks, ash and hackberry should be more often planted. Perhaps mistakes are made in placing evergreens more often than with any other tree planting. Until they get quite old their beauty depends very much on retaining their branches to the ground. They should not crowd a path or driveway, or be placed where when large they cause desire for removal.

If in suitable position, old evergreen trees look well with the branches trimmed up. At that stage of growth none look better than white pine and hemlock. If the soil of the intended lawn is not as good as it should be get the lawn started and top dress afterward.

If you make improvements as you have time and do things when you can, your ideas will expand and you will have a continuous pleasure in making improvements. If uncertain what to do first, commence with the closed drain for the house and the driveway.

William Toole Sr.
Baraboo, Wis.

The Summer Meeting.

We came, we saw but unlike Caesar we did not conquer.

Fifty-seven wayfarers, wanderers, from Bayfield to Kenosha, from Sturgeon to Chippewa, found their way to Gays Mills, Wednesday, Aug. 20th.

One Crawford Co. resident Mr. Haines of Viola was also present, no others.

Owing to a misunderstanding, the intense heat, a broncho sale at the stock yards and other reasons too numerous and too aggravating to mention the afternoon program Wednesday was

postponed until 1918 when we meet again at Gays Mills.

Owing to the haste on the part of the "out-of-town" people to catch the afternoon train Thursday the "bluff" program was also postponed.

The evening session Wednesday was well attended.

The exhibit of vegetables was of the usual high standard. The Lake Geneva gardeners entered a splendid display in competition for the local society sweepstakes and won first premium with

McKay Nursery Company

PARDEEVILLE, WIS.

Offer a Complete line of

HARDY NURSERY STOCK

FOR SPRING 1915

If interested in planting **FRUIT TREES, SMALL FRUITS** or **ORNAMENTALS**, write us for **CATALOGUE** and **PRICES**. You will find our prices consistent with quality of stock offered.

**NURSERIES AT
WATERLOO, WISCONSIN**

**"We have a Fine Lot of
Plants for the Garden."**

SEND FOR LIST

**J. E. MATHEWSON
SHEBOYGAN, WISCONSIN**

plenty to spare over the Oshkosh society.

N. A. Rasmussen pocketed all the firsts on vegetables as usual. It's surprising no one has the courage nor the enterprise to go after Nick's scalp,—and get it.

If someone don't do it soon he will get the habit.

Concerning the fruit exhibit,—let's not say anything about the fruit exhibit, the premium awards on another page tell the story.

So far this is a more or less dispassionate account of the summer meeting, the facts set forth in all their nakedness. From the standpoint of attendance and program the meeting might be called a failure if compared with 1912 or 1913, but viewed from another angle it was highly successful. Everybody had a good time. All were well housed and well fed and all saw the Kickapoo orchards. What more could be desired?

The forenoon program Thursday, "Inspection of Orchards," was well carried out. We all climbed Orchard (formerly Rattlesnake) trail and at the crest were met by a field battery of Fords and spun through two miles of apple trees and back to the big tent.

The verdict? Just what has been told before, "Nothing else like it in Wisconsin."

It's all new yet, the orchards just planted, and just begun. It may all be a failure but if it is it will be the fault of the management, certainly not on account of lack of opportunity.

You can sell goods by advertising in Wisconsin Horticulture, everybody who tries it says so.

The value of good, thorough cultivation of the garden has been demonstrated this season.

Golden rod and other prairie and marsh flowers may be set out about the home this fall or next spring.

Premiums.

The following premiums were awarded at the Summer Meeting.

Fruit.

- Best Plate Astrachan; first, N. A. Rasmussen.
- Best Plate Duchess; first, N. A. Rasmussen.
- Best quart Red Currants; first, N. A. Rasmussen.
- Best quart Gooseberries; first, N. A. Rasmussen.
- Best pint Red Raspberries; first, J. F. Hauser.
- Sweepstakes for largest number of first premiums for fruit; first, N. A. Rasmussen.

Vegetables.

- Best quart Snap Beans; second, N. A. Rasmussen.
- Best quart Bush Lima Beans; first N. A. Rasmussen.
- Best quart Pole Lima Beans; first N. A. Rasmussen.
- Best six Turnip Beets; first N. A. Rasmussen.
- Best three heads Drumhead Cabbage; first N. A. Rasmussen.
- Best three heads Cabbage any other variety; first N. A. Rasmussen.
- Best three heads Cauliflower; second N. A. Rasmussen.
- Best six heads Celery; first N. A. Rasmussen.
- Best twelve ears Sweet Corn; first N. A. Rasmussen.
- Best six Cucumbers; first N. A. Rasmussen.
- Best three heads Head Lettuce; second N. A. Rasmussen.
- Best three Musk Melons; first N. A. Rasmussen.
- Best six Parsnips; first N. A. Rasmussen.
- Best twelve Tomatoes; first N. A. Rasmussen.
- Best Turnips one-half peck; first N. A. Rasmussen.
- Best White Onions, one-half peck; first N. A. Rasmussen.
- Best Yellow Onions, one-half peck; first N. A. Rasmussen; second Wm. Toole, Sr.

"TREES THAT THRIVE"
KELLOGG TREES
 Wisconsin Grown for Wisconsin Planters
SIXTIETH YEAR
 Specialties.—Apple and Americana plum trees, small fruit plants. Everbearing strawberries. A card will bring our special
INTRODUCTORY OFFER
 which will surprise you. Descriptive price list free, and it will save you dollars.
KELLOGG'S NURSERY
 Box 77. Janesville, Wis.

PAEONIES
 Your garden is not complete without a collection of our best
PAEONIES
 Send us a \$1.00 bill and we will express you ten good roots of our selection. Get our catalog.
W. J. MOYLE, Prop.
 Wisconsin Nurseries
 Union Grove, Wis.

**Orchard Land in
 Dunn County, Wis.**
 Surface rolling; soil, rich clay loam underlaid with limestone. The orchards of adjoining farms show the adaptability of this part of Wisconsin to apple growing. Near railroads and markets. Prices reasonable. Write for particulars.
William J. Starr
 Eau Claire, - - - - - Wis.

NATURE INSURES FRUIT GROWERS
 Against frost on the Bayfield Peninsula.
 We have also nearby markets, a successful cooperative association, fruit producing soil, cheap land and beautiful country. Our latest publication on actual profits made by growers will be mailed upon request.
THE DENISTON COMPANY
 Bayfield, Wis.

- Best twelve Carrots; first N. A. Rasmussen.
 Best three Egg Plant; first N. A. Rasmussen.
 Best six Peppers; first William Toole, Sr.; second N. A. Rasmussen.
 Best three Summer Squash; first N. A. Rasmussen.
 Best Display Radishes; first N. A. Rasmussen; second J. F. Hauser.
 Best Display Novelties; first N. A. Rasmussen.
 Sweepstakes for largest number of first premiums on vegetables; first N. A. Rasmussen.
 Best exhibit vegetables by local society; first Lake Geneva Gardeners' & Foremen's Association; second Oshkosh Horticultural Society.

Flowers.

- Best Display Asters; first J. F. Hauser.
 Best Display Double Dahlias; first J. F. Hauser.
 Best Display Cactus Dahlias; first J. F. Hauser.
 Best Display Delphiniums; first J. F. Hauser.
 Best Display Gaillardia; first J. F. Hauser.
 Best Display Gladioli; first J. F. Hauser.
 Best Display Petunias; first J. F. Hauser.
 Best Display Phlox (Annual); first J. F. Hauser.
 Best Display Phlox (Perennial); first J. F. Hauser.
 Best Display Snapdragon; first J. F. Hauser.
 Best Display Sunflowers; first J. F. Hauser.
 Best Display Sweetpeas; first J. F. Hauser.
 Best Display Verbenas; first J. F. Hauser.
 Best Display Herbaceous Perennials; first J. F. Hauser.
 Display Annual Garden Flowers not enumerated in above list (collection); first J. F. Hauser.
 Sweepstakes awarded exhibitor receiving largest number first premiums on flowers and

potted plants, amateurs only; first J. F. Hauser.

Best exhibit flowers and foliage plants by local society; second; Oshkosh Horticultural Society.

Potatoes.

C. L. Richardson

Whether, as has been alleged Captain Henry Hudson discovered the potato growing wild, when in 1669 he sailed up the Hudson river; or whether it was put upon the market by the chieftains of Tammany Hall somewhat later than 1637, is a controversy for historical precedence which has many times strained the friendly relations of Holland and Ireland. But as all the direct witnesses of the alleged discovery are deceased or cannot now be found, it is necessary to resort to secondary and circumstantial evidence in the case, and that the latter theory has been more generally accepted is shown by the popular name of the "Irish Potato."

To grow good potatoes requires, as in the case of most other crops, good soil, good seed and good culture. The production of the seed will be reverted to later; its selection may perhaps be considered here.

Whether for culture in a limited way in the garden or for more extensive planting in the field the seed should be carefully hand-picked each year. It is remarkable how potatoes become mixed in spite of the greatest care. Then too a certain percentage revert, "cry-back" or become decadent from year to year. So select a part or all of your potatoes each spring, true to name and true to type, for the planting. It will be even better to select the seed in the fall as gathered, and store these with extra care, but many of us are too busy at that time of year.

It would seem that the smooth type, medium sized tubers are the best. I can see no gain in

The Great Northern Nursery Co.

Sells First-Class Wisconsin Grown Trees

Our Trees Live. We have over 50,000 No. 1 apple trees of the late varieties, all of our own growing; and a nicer lot of trees was never grown. They are smooth, clean, healthy, hardy and just the kind of trees to plant in a commercial orchard.

Before you place your order, Mr. Planter, for your trees, write us for prices.

We are the largest growers of apple trees in the state, we are confident that we can furnish trees that will please you, and our prices are right.

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

BERRY BOXES

Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16 quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Co.

Dept. D, Cumberland, Wis.

Make Your Own Barrels

At a cost of about 29c.

"BARREL MAKING SIMPLIFIED"

Tells How - - - Price \$1.

Sent free for 6 names of Apple

or Cranberry growers.

Send 10c for my little booklet

"THE MODERN BARREL"

IT'S JUST FULL OF "BARREL"

information. 12 p. booklet free

LEON MILLER

2012 N. Germantown Ave. Philadelphia, Pa.

planting fragments of the very largest stock. On the other hand stock that is unduly small is apt to be either deficient in vigor and generally decadent or immature, and in either case, lowers the type, quality and productiveness of the crop. Halve or quarter the tubers the long way; other things being equal, the best eyes are at the forward tip of the potato.

Good soil is a prerequisite, and it should be deep enough to permit of fairly deep plowing. We prefer to plow in the spring, as this leaves the ground soft and mellow. Even the best land is greatly improved by a crop of manure, but its application promotes potato scab. If the manure is applied as a top-dressing before or even after planting the crop will be increased, only the trouble will shift from scab to weeds.

Potatoes will grow on any soil from sand to clay, but heavy soil requires good drainage, while a black mucky soil tends to rot the crop. Some varieties prefer a particular type of soil; thus in eastern Chippewa and western Clark counties hundreds of acres of Bliss Triumph have been grown, the Chelsea Clay formation being favorable to that variety.

Garden potatoes are in most instances planted as early as possible. But the average farmer ought not to plant many in the garden—it is likely to be too hard work for the women folk. Get them out in the open fields where spraying and cultivation are easy and much time will be saved and much hand labor avoided. And the successful farmer is finding it more and more necessary to conserve his time as carefully as do the lawyer, the dentist and the banker.

For the field we have planted at all times and under diverse conditions, but as the years go on I am becoming inclined to plant late. That is during the month

of June, even as late as the twentieth of the month. The late potato is an annoyance in haying and berry picking time, it is true, but the potato beetle causes correspondingly less trouble. Moreover the Maine Experiment Station distinguishes the "early blight" and "late blight," and states the early blight does little harm when the temperature is below 77 degrees. Our experience seems to bear out the truth of this. As the late planted potato does not get along to the blighting stage until the cooler nights it practically escapes the early blight.

Now I am fully aware of the claims made for the Bordeaux mixture spray. For years we have sprayed persistently, and in most instances have benefitted greatly thereby, but with all due respect to the Authorities, there are thousands of practical farmers who will agree that, restricted as they are for time and labor, spraying is, like the darky's mule—"mighty ousartin."

We use a four-row sprayer, drawn by one horse. It is equipped with Vermorel nozzles and is supposed to develop 40 pounds to the square inch pressure, but when leaking well it actually develops a pressure of perhaps 25 or 30 pounds per square inch. That is the weak point with most farm sprayers—they do not develop sufficient pressure to make a fine misty spray.

We are using five pounds of copper sulphate, six pounds of lime and fifty gallons of water. As a poison we use three or four pounds of arsenate of lead and one or two pounds of Paris green added to the above. We have tried many poisons, and on account of its adhesiveness we like the arsenate of lead best, but its action is too slow so we add some Paris green to get quicker results.

Some growers, who are very intelligent men otherwise, still plant potatoes in the dark of the moon. My own theory and observation

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.

AGENTS WANTED

THE JEWELL NURSERY CO.

LAKE CITY, MINN.

1500 Acres Estab. 1868

The Hawks Nursery Company

are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

WAUWATOSA, WISCONSIN

is this however: that potatoes have a certain time, depending on the variety and climatic conditions, when the new potatoes "set" or begin to form: that the number and vigor of these depends to some extent on conditions at that time: that knowing this elapsed period, we can plant so new potatoes will "set" at what we believe will be a favorable period; and that the weather statistics for past years furnish the most reliable probabilities in this direction.

While it is indisputable that the crop needs a great deal of cultivation to kill weeds and conserve moisture, yet the type of cultivation may occasion divergences of opinion, based largely I think, on soil and location. There may be places where it is wise to plant at slight depths and then hill them up until the field resembles a miniature Rocky Mountain Region, but on our smooth, high and rather dry prairies I prefer to plant moderately deep, omit all hilling devices and content myself with what dirt is thrown upon the row with the cultivator teeth slanted inward for that purpose.

The Early Rose and Early Ohio are standards. Perhaps Pecks Early comes on as soon as anything I have tried. The Beauty of Hebron produces very good results, only it rots considerably on wet, flat fields. Early Eureka is a good one for fall shipments, being white, smooth, round and attractive. For the main crop our section depends on the Rural New Yorker, Carman and Sir Walter Raleigh. The Rural is most extensively grown, but I believe the Sir Walter Raleigh is a little larger and somewhat more productive.

Among the potatoes of quality the Crown Jewel is much liked by some, and the California Russet has many friends. For my own part I like the Burbank. There are certain locations—usually on flat clay soils—where the Green Mountain Boy pays well. It is

white, oval, large and of very poor quality but often extraordinarily productive.

We believe it is well, where stock is to be stored for the winter to let it lie in the ground until late. The tuber cures, so that it keeps well, heating and rotting are lessened and the skin becomes tough so that abrasion is lessened. They should be stored in a cool, moderately dry place. They keep best in a low, uniform temperature. A temperature of 32 degrees will not freeze them—they stand a fall of 26 or 28 degrees, but too low a temperature will weaken the eyes so that the sprouts will be weak and defective, even though the potato appears never to have been frozen.

If pure-bred seed is obtained, grown on good soil, selected for purity and type each year, and carried over just above freezing during the winter, the good seed spoken of in the beginning should be obtained.

Beautify Your Home

with

Hardy, Wisconsin Grown

SHRUBS and FLOWERS

By means of the following bargains you can make your grounds attractive at small cost. Until our surplus is exhausted, we are making the following special offer:

100 shrubs in variety-----	\$10.00
50 Shrubs in variety-----	5.25
100 Perennial flowers in var..	8.00
50 Perennial flowers in var..	4.25
25 Perennial flowers in var..	2.25

Write for complete list of varieties to select from or give us an idea of what you want and enclose a money order and we will make a suitable selection.

WHITE ELM NURSERY CO.,
OCONOMOWOC, WIS.

"CHASE QUALITY STOCK" IS WESTERN NEW YORK GROWN

We are often asked the question, "Why are trees, grown in the vicinity of Rochester, N. Y., better than those grown in other locations?"

For the first three years a tree can stand no great drawbacks, and is governed by Nature's laws, the same as animal life; it must start out with a constitution if it is ever to make a vigorous fruit-bearing tree.

It is an acknowledged fact that trees grown in the Lake Ontario region of Western New York have withstood the test of years, and when transplanted to every state in the Union have proved of unsurpassed vitality, and given good satisfaction to the purchaser. The soil is specially adapted to tree-growing, and the first thing noticeable to a stranger is the thrifty appearance and fruit-bearing qualities of the trees in this locality. Added to the advantage of soil comes the climate, and in no place within our knowledge is the temperature so even or the sun so obscured in winter. The tender tree is never subjected to those sudden and rapid changes caused by bright, warm days, so prevalent in some sections, and which will start sap in February or March, oftentimes to be checked in a few hours by zero weather—and before the young tree has arrived at the age to withstand these reverses, it has become sickly and stunted.

Buy our Western New York grown piece-root grafted apples for Spring 1915 planting.

CHASE BROTHERS COMPANY
The Rochester Nurseries
Rochester, N. Y.

In conclusion it may be said that there is perhaps no farm crop whose price varies as widely from year to year, nor any extensive field crop which will prove as sure a money maker over the long average of years as the potato. This it is which has made it the greatest cash crop on the farm.

Mr. Parsons of Minnesota Speaks His Mind.

Your esteemed favor of yesterday relating to Wisconsin as the home of small fruit received and I can vouch for the truth of your statements for I have traveled over a good part of the state and can truthfully say that it surpasses any locality I ever saw for small fruit such as berries of all varieties that grow wild in abundance particularly in the north part of the state. I have seen Raspberries so plentiful that one might fill a ten quart pail in ten minutes by simply holding the pail under the bushes and shaking the berries into it. Some years ago I was at Couderay in Sawyer county and about to start for Milwaukee. Having about two hours before train time I procured a 10 quart candy bucket, bored a few small holes in it to admit the air and went out into the slashing and filled it full of fine berries and still had to wait several minutes for the train which was promptly on time. I took it with me as far as Rice Lake where I shipped it by express to my daughter in Minneapolis where she received it the next morning in good order. I have seen berries so plentiful near Phillips in Price county that people did not seem to care for them. Yes, Wisconsin is the banner state for fruit—not only Raspberries but Blackberries, Blueberries and Strawberries. Not only small fruit but apples and cherries. I have seen apples so plentiful in Milwaukee county that farmers gave them away to people who would gather them.

LANDSCAPE DEPARTMENT SERVICE



A Block of Our American Elms, one of Our Favorites.

—120 ACRES—
**QUALITY
SERVICE
PRICE**

The three essentials to be considered in buying

**NURSERY
STOCK**

We are taking orders for PARKS, CEMETERIES, SCHOOL GROUNDS, LIBRARIES, ETC., FOR FALL PLANTING. Our stock of shrubs, perennials and shade trees very complete, largest in Wisconsin. Come and see us or write us today.

THE COE, CONVERSE & EDWARDS CO.
FORT ATKINSON, WIS.

STATE FAIR

Milwaukee, Sept. 14 to 18, 1914

**BE A GOOD SPORT AND
GO TO THE STATE FAIR**

Horticulture will be right at the front as usual. Our old building burned (helps some) but the Fair Board immediately erected for us a fine brick and steel building 72x200 ft. It will be filled with big red apples "Grown in Wisconsin."

COME AND SEE THEM!

BRING THE FAMILY!

P. S. There will also be horse races, live stock show, county exhibits, machinery and a few other minor attractions, but the Big Show will be in the new Horticultural Building. *Don't miss it!*

The Bayfield Peninsula will certainly become a rival of the Michigan apple belt and a lively competitor of the Pacific coast as Northern grown apples surpass those grown in milder climates in flavor.

Thos. H. Parsons.

Orchard and Garden Notes

Country Gentlemen and Stowell's Evergreen sweet corn should be at their best in late August.

Have the old raspberry canes been cut out and burned? This will destroy many insects and some diseases.

Dahlias are at their best the middle of August. The nicest blooms are produced on plants that have been pruned and disbudded.

Highbush cranberries are now about ready for jelly. This plant is coming more and more into favor, both as an ornamental shrub and as a jelly supply.

Have you noticed the birds playing in the dish of water that you set up out of the way of cats? They enjoy water during hot weather as much as any of us.

Perennial phlox have been at their best this year. There are varieties of these plants in nearly all colors and they add much to any lawn or shrubbery.

One of our neighbors, who has but a small garden space, is growing his cucumber vines on a trellis which will soon make a shady arbor, besides saving land.

As soon as the leaves fall make hardwood cuttings of the currant about eight inches long, and plant them in the garden. They should become well rooted by winter.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul.

Holmann's Dutch Bulb House

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WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, October, 1914

Number 2

The 1914 State Fair.

The Fair was a grand success in every particular. The exhibits in every department were fine the weather was ideal except for a little shower Monday evening (26 inches in 2 hours) and lots of people came to see the show.

The fruit show occupied one half of one of the new brick buildings and filled every inch of this space, 7200 sq. ft. The plate display equaled in quantity that of 1913 and excelled it in quality. The plate display fell somewhat short of last year in numbers but the quality was good. In the commercial class twenty seven barrels were shown and about twenty boxes. As this is but the second year premiums have been offered in this class and an "off" year for apples this showing was good.

Only two of the five fruit counties which staged special county exhibits last year showed enterprise enough to come this year, Crawford and Bayfield.

As soon as photographs and cuts of these exhibits can be secured we will print them, both in one issue this time.

The Society exhibit occupied a prominent position. Nearly two hundred bushels of apples were

used but only a few varieties. The exhibit attracted much attention—and received some favorable comment. Following the custom of past years the show was extended a week by remov-

town crowds, accustomed to studying window displays, see every apple and read every sign.

Lest there should be any misunderstanding of the relations of this Society and Gimbels in the

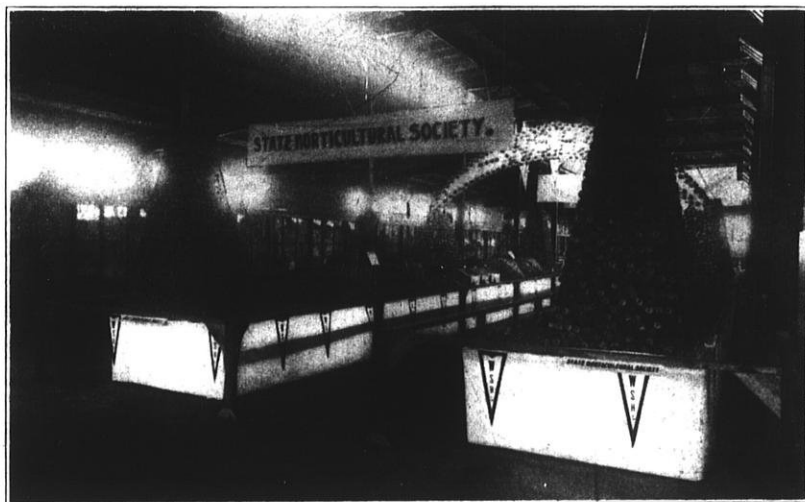


Exhibit State Horticultural Society State Fair, Sept. 1914, looking north.

ing it to Gimbels' store on Grand Ave., Milwaukee.

This is really our best show both as to the number of people which view it and closeness of observation. State Fair crowds look without seeing; are attracted by an unusually large Wolf River but give but a passing glance to a bushel of choice Dudley or Windsor, while the down

matter of our apple show the following facts are set forth:

1st. Gimbels is one of the few firms in Milwaukee that positively refuses to sell window space for any price. The writer has good reason to believe that an offer of five thousand dollars a day for the window which we occupy for eight days free would be scornfully refused.

2nd. This is one of the large firms in Milwaukee that does not sell apples and could not therefore, even if inclined, use our display to increase trade or to sell anything that they might purchase as Wisconsin apples.

3d. This window display of Grown in Wisconsin fruit is made absolutely without expense to us and in addition we receive in cash the full value of all fruit actually shown in the window.

4th. Whatever returns Gimbels may get from the display is no concern of ours. We are concerned only with advertising Wisconsin fruit.

play twice as big as we had this year, twenty or more special county exhibits, a cranberry exhibit equal to that shown at the Minnesota State fair this year, both amateur and professional flowers, a dozen booths for nursery exhibits, a section for horticultural supplies insecticides, etc., seeds and the smaller implements of our trade and VEGETABLES. With the kind permission of whoever may be in authority let us take over garden vegetables and make a real department of it. Up to the present time the vegetable display has been a disgrace to the vegetable

fair board comes before the legislature for an appropriation for buildings, stand back of them just as they have always stood back of us and speak up for horticulture. If you want to get somewhere you will surely do it if you keep on pushing. You may have to give some other fellow a kick in the slats occasionally but that's all in the game.

Just keep in mind that we are to keep on pushing for the new building the largest, best and prettiest building on the fair grounds, and we will get it.

I forgot to say that we will also have a machinery annex where every kind of spray apparatus will be shown from a squirt gun for house plants to the largest power pump and all in operation.

F. C.

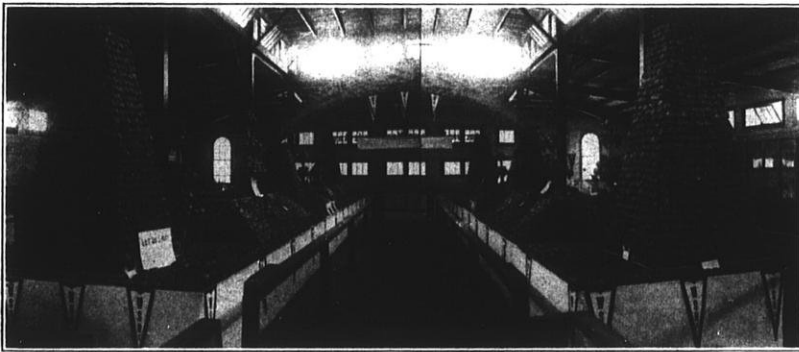


Exhibit W. S. H. S. State Fair 1914, looking south.

NEXT YEAR.

Now is the time to make plans for the 1915 fair and at this time a glance backward as well as one ahead will do no harm.

A few years ago we had less than one half of the old Agr.-Hort. building, rusty tin plates, apples climbing golden (?) stairs, and fenced in with chicken wire.

Last year corn and wheat moved out leaving us a building to ourselves and it *was filled*, with apples, grapes, plums and pears.

The new, 1914, building 72x192 ft. is probably large enough for fruit alone for some time to come but it is not good enough.

What we want, what we need what we must and will have is a new horticultural building at the State Fair.

We want a building big enough to take care of a premium dis-

industry of Wisconsin both amateur or professional.

We have "in our midst" several expert gardeners who have spasms, metaphorically and figuratively speaking, whenever you ask if the vegetable show at the fair is representative of the industry.

Lets turn two or three of them loose on the proposition. Strange but there are men in our Society, in every branch, who will work their fool heads off without thought of any other compensation than to see the work well done.

So, then, we will have a new building fitted to the needs of horticulture in Wisconsin. If you ask how we are to get it the answer will be, just indicate what you want to the legislature next winter. Be loyal to your own State fair and when the State

Windfall Apples May be Canned and Used for Pie Filling, Apple Sauce, Etc.

Windfall apples, which are often left on the ground to rot, may be made to serve a useful purpose by the economical housewife. A little forethought and labor at this time of the year spent on a despised product of the orchard may supply the winter table with many an appetizing and wholesome dish which otherwise would either be lacking or supplied at a higher cost.

Windfall apples may be canned whole and used as a breakfast dish, for dessert, salads, or baked. There will be many which are too much marred for canning whole. In this case, the marred places may be removed and the apples sliced and canned for either pie filling or apple sauce. Following are the recipes for thus taking care of windfall apples:

WHOLE WINDFALL APPLES CANNED.

Select firm, not overripe apples. A great difference in the canned products will be noted in the different varieties of apples. This recipe is intended for firm and

preferably tart varieties. Some varieties will require less time and some more.

Remove blemishes, cut out core. Blanch for 2 minutes in boiling water; plunge in cold water. Pack in tin cans or glass jars and add just a little very thin sirup. Put on rubber and top and partially tighten. (Cap and tip tins.) Sterilize 20 minutes in hot-water bath, 15 minutes in water seal, 10 minutes in steam-pressure outfit, or 6 minutes in pressure cooker. Remove jars, tighten covers, and invert to cool.

Apples canned in this way make a product that is generally wasted available for apple salads, dumpings, breakfast apple dishes, apple potpies, and baked apples.

WINDFALL APPLES FOR PIE FILLING.

Peel and core; slice; scald 2 minutes in boiling water; plunge in cold water; pack in glass or tin, and add about 1 teacupful of hot, thin sirup to each quart; put on rubber and top, partially tighten (cap and tip tins); sterilize 16 minutes in hot-water bath, or 12 minutes in water seal outfit, or 10 minutes under 5 pounds of steam, or 4 minutes in pressure cooker; remove jars, tighten cover, invert to cool. This is a good method of utilizing the good portions of partially decayed apples.

Note.—The thin sirup mentioned in these recipes is made as follows: One and one-half cups of sugar to 1 cup of water, brought to boiling.—*U. S. Dept. of Agr.*

Quite Likely.

One lady who visited our exhibit walked slowly past the two hundred bushels of fragrant Wealthy, Snow and Dudley and stopping before the group of McIntosh looked longingly at them for some time, spoke but a single sentence and walked on:—"Now I know how Eve felt."

Pruning the Grape.

By J. G. Moore, Wisconsin College of Agriculture.

In those sections where winter protection of the grape is advisable, the greater part of the pruning should be done in autumn after the leaves have fallen. There are a variety of systems of training in use, but the one which will require the least attention during the growing season is the drooping system, commonly

A healthy grape vine, after a season's growth possesses several times as much wood as it is desirable to leave for the production of the next season's crop. As a rule the amateur grape grower leaves altogether too much wood on the vine.

Fig. 1, illustrates a vine as it appears on the trellis in the autumn after the leaves have fallen. It will be seen that the vine is really composed of wood of three ages. *a* represents the trunk or

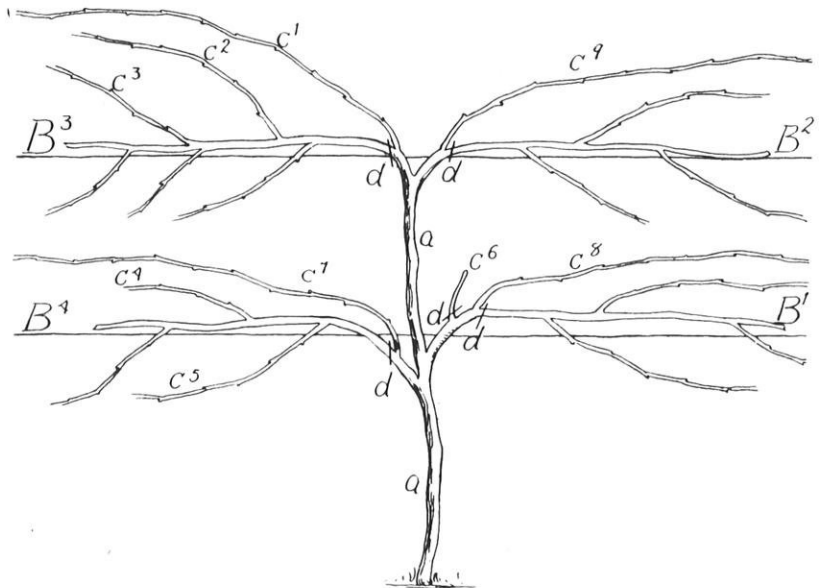


Figure 1

Grape pruning by Prof. J. G. Moore.

known as the Kniffen system. There are several modifications of the original Kniffen system, but these are modifications of detail rather than principle. The four cane Kniffen is the one most commonly used.

In this system a two wire trellis is necessary. The bottom wire should be at least two feet from the ground and the upper wire two feet higher. With most varieties these distances should be somewhat greater. The four cane Kniffen system consists of so pruning the vine that two canes are left for each trellis wire, one running in either direction.

oldest portion of the vine. From this arises four branches, canes *B*, 1, 2, 3, 4, which have finished their second season's growth, and from each arises several shoots, *c*, 1, 2, 3, etc., which have been produced the past season and which, at or near their base, produced the fruit crop. These shoots of the growing season just past become the canes of the coming season. It will be noted that each of these shoots possesses a number of buds. If all were left there would be too many new shoots next season endeavoring to produce fruit, which would result in the weakening of the vine and inferior fruit production. In

addition, the vine would soon be only a tangled mass similar to a wild grape vine.

Pruning of this vine will consist in reducing the wood so that

are left on the shoots for the lower trellis wire and from 8 to 10 on those for the upper trellis wire. It must be understood that this number is only suggestive

following spring will look like the one illustrated in Fig. 2.

If the vines are old and neglected, some difficulty may be experienced in getting the ideal form of vine. Under such circumstances the grower should not expect a well formed vine for at least two years.

In cases of this sort it may be necessary to develop a new trunk. This may be done by selecting one of the shoots which has arisen from the base of the vine or low down upon the old trunk. It should be left just long enough to permit of tying to the upper trellis wire. The following season it will produce shoots and may then be handled as a new vine.

RENEWALS.

Observation will reveal that each succeeding season the bearing wood is getting farther and farther removed from the trunk. In time it becomes desirable to get back nearer the root system. This is accomplished by taking

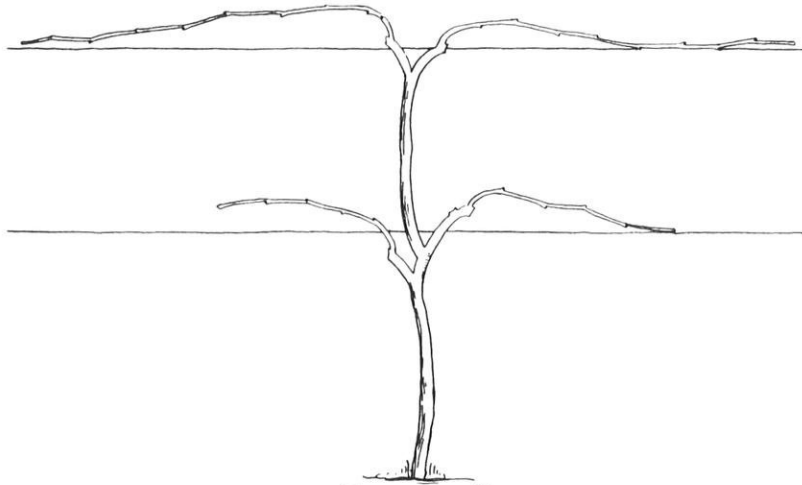


Figure 2

Grape pruning by Prof. J. G. Moore.

it may be kept within bounds and still produce the maximum amount of good fruit without weakening the plant. It is evident that we must select four of the shoots to replace the four two year old canes. Two things should be kept in mind in making this selection; 1st, that the shoots selected should be good, vigorous ones; 2nd, that they should arise as near the base of the canes as possible, as it is desirable to keep the producing wood close to the trunk.

and the grower must use his judgment as regards the number of buds. He will be materially assisted in this if he will remember that under favorable conditions

In pruning the vine illustrated in Fig. 1, we will therefore select shoots c, 1, 9, 7, 8. Shoot c, 6, although nearer the trunk is discarded because of its weakness and lack of sufficient strong buds. We will remove the canes and shoots other than those selected by making cuts at d.

The next question which arises is how much of shoots c, 1, 9, 7, 8, should be removed. This depends upon a number of factors, such as age of plant, distance between plants, characteristic growth of the variety and vigor of vine. Under ordinary conditions usually from 4 to 6 buds

each bud left will produce a shoot the following season and that each shoot should produce from three to five bunches of grapes. Our vine, properly pruned and tied to the trellis the

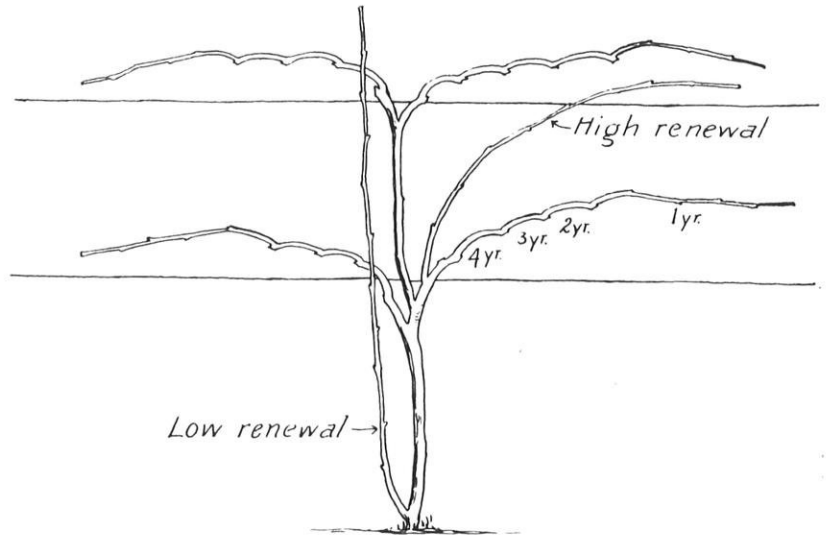


Figure 3

Grape pruning, Prof. J. G. Moore.

out renewals. Renewals are of two kinds,—low and high renewals. A low renewal is taken from near the base of the plant and ultimately becomes the trunk. It is essentially described

above. A high renewal is a renewal of the extension of the trunk (arm) from which the cane arises. High renewal is accomplished by selecting a shoot arising from the trunk near the trellis wire or at the base of the arm from which the canes arise. Low and high renewals are illustrated in Fig. 3.

The Switzerland of America

This is the name given the Kickapoo Valley by a reverend friend of mine.

The beauties of this valley have been so well pictured and described by others and better pen painters that I shall not attempt it, but I would advise all loyal Wisconsin people to visit this valley before going West to invest in orchard lands, for fruit here can be grown just as large, just as beautiful and what is more to the point, more luscious than that of the West.

It was our good fortune to visit Gays Mills and attend the meeting of the State Horticultural Society which convened there Aug. 19th and 20th.

Gays Mills is a pretty, quiet little village nestled down under the hills apparently waiting for Rip Van Winkle to come staggering down, and judging by the manner in which the modern Rips (Horticultural men) have infested the hills, they won't have to wait long.

Our first meeting was called Wednesday afternoon but owing to the absence of some of the speakers, and other attractions, the meeting was adjourned until evening, when we were greeted with a packed house to listen to the speeches and a musical program which was given by prominent young people of the town.

First number being a piano solo by Miss Stowell followed by a cornet solo by Mr. Rand, a duet (vocal) by Miss Hays and Mr. Hunt. They delighted the audi-

ence by graciously responding to encores.

The lecture of the evening was given by our secretary Frederic Cranefield on the subjects "There is a reason" and "The improvement of home grounds." Although not delivering a sermon he took for his text Genesis I: and I and proved conclusively the reason why these hills were created, and the purpose for which they were intended. We hope that our secretary will print his address in full for the benefit of all readers of the Wisconsin Horticulture.

The latter part of the address was illustrated by lantern slides showing how at slight expense the farm home could be made beautiful by simple planting of shrubs and flowers in well selected places.

Mr. Cranefield argued that more young people would remain on the farm if the homes were made more attractive. The address was given in an able and scholarly manner which delighted his hearers and sent them away filled with enthusiasm to learn "The reason" and follow out instructions. After the completion of the program the people lingered to see the exhibit of flowers and vegetables which were truly beautiful. As for the display of melons one need not wait for Rocky Fords when such beauties can be raised in our own state. On Thursday morning the Slogan was "On to the hills". The men of our party had a mile climb up the face of the hills, while the women were taken by autos, making a detour of nearly five miles. When we reached the top and could look down the Kickapoo Valley and see Gays Mills you should have heard the Oh's and the Ah's.

How lovely are thy hills, Oh Kickapoo.

All members of the party and visitors were carried by autos to Summit to view the orchards owned by state and companies.

For statistics concerning these

orchards re-read Mr. Harley's interesting paper on "The Kickapoo Valley" in the August number of the Horticulturist. After viewing the orchards of apples and cherry and the large vineyard we were taken back to the brow of the hill where a large tent (one of Gallagher's best) had been put up, and we were served with a delicious lunch topping off with apple pie A la Mode.

The women of our party were disappointed in not having the omelette which was promised them by the men who had gathered nearly a pail of eggs while climbing the hill. Further inquiries showed that the omelette had wiggled away (the eggs were snake eggs).

In closing I would ask if one apple in the Garden of Eden caused Father Adam to change his mode of living and to go out into the world, to dig and till the soil, and to teach his people the care of the land, what will these orchards do for the modern world when our men of education and experience turn their attention to the caring of them?

Mrs. M. E. Brand.

Municipal Care of Trees.

A. W. Brayton, Jr.

How many of us *observe* the trees that line our city streets? The majority of us do observe them, and indeed we find them interesting and valuable friends—interesting because of the spirit they seem to express, and valuable because of their beauty and usefulness. This afternoon we will consider them from the economic standpoint. How can we *enhance the beauty* of our city streets by means of them?

Let us stop for a moment to consider what it is that makes the boulevards and *elegant streets* of our progressive eastern cities so attractive. Is it not the *effect* of a long avenue of trees uniform in kind, size and shape; uniformly

spaced and properly cared for? Here we find healthy and vigorous trees,—healthy because the right kind of tree was selected for the environment, and properly planted,—vigorous because they were given freedom to grow and not crowded one into another. Is there not something restful and peaceful in the evenness of such a boulevard.

Contrast for a moment the hodge-podge massing of all varieties of trees that we find on the city streets here in Madison. It is a shame and a disgrace to your Capitol city that her streets should be lined with shaggy unshapely and disfigured trees; all are badly mutilated and poorly spaced. Here, with your climatic conditions favorable for some of the best kinds of trees, your wide streets might be transformed into beautiful avenues. But you may be assured that this cannot take place as long as the property owners have the privilege of planting and taking care of the trees, for all sorts of trees will be planted and the tree butcher will continue in his work of destruction. I don't think it necessary to describe his work. It is self-evident. But I want you to understand that he is as ignorant to giving the trees proper sympathetic and intelligent care as the people that engage him. There is no science or art in his butchering. He thinks he knows what to do, and has great confidence in his strong right arm. He can saw the tops out of many beautiful trees in a day, and he makes a good living by preying unrightfully on Nature. It is not his fault. He is ignorant. This is all a matter of education and aesthetic appreciation of which he has neither one. Is it not strange that here in Madison where hundreds of students are learning how to properly care for trees, that this same tree butcher thrives and makes his living by mutilating your trees? And here, we see all varieties and shapes of trees

planted side by side, each trying to outcrowd the other. I simply want to suggest that it be made anything but a test of the survival of the fittest.

If you wish to beautify your city, you must take the privilege of planting and pruning of the trees from the individual householder and organize the work. What you need is system, and system will be obtained only when the city government takes into its hands the function of caring for the shade trees that line the city streets.

The city council should wake up and assume the responsibility of seeing that this work of systematic planting and caring for the trees is properly done. They should provide for an intelligent and well trained man to superintend the work,—a man of good judgment and an appreciation of the beautiful. In this way the work could be carried on more economically and satisfactorily than it possibly could be done by the individual property owners.

This transformation cannot all take place in a day. It will take time; but the sooner we start, the sooner will we reach our ideal,—when the city can take pride in her avenues of stately trees.

A Perennial Border.

W. J. Moyle.

A reader of Wisconsin Horticulture in Milwaukee, intends to plant a forty foot border of hardy perennials and wants to know what he shall plant so as to give him a continuous bloom all summer.

If this was my border, here is what I would set:

10 Delphinium Formosum Hybridum.

20 Hardy Phlox assorted colors.

20 Pyrethrum Roseum assorted colors.

5 Single Hollyhocks assorted colors.

5 Aster, Nova anglea.

5 Oriental Poppies.

5 Boltonia Latisquama.

5 Lemon Lilies.

5 German Iris assorted colors.

5 Achillea the Pearl.

5 Tiger Lillies.

5 Shasta Daisies.

5 Dicentra Spectabilis.

10 Aquilegia assorted colors.

10 Double Russian Violets.

10 Platycodon blue and white.

5 Ranunculus Acriis, Fl. Pl.

5 Prumula Officinalis.

5 Dianthus Plumaris Fl. Pl.

5 Iris Nudicaule.

Set the Delphineum, Hollyhocks, Boltonia, Oriental Poppies, Tiger Lillies and New England Asters in the center of the border and around the edge of the border plant the Violets, Pyrtheum, Platycodon, Dwarf Iris, Shasta Daisies, Pinks and Primroses running the Phlox, German Iris, Lemon Lilies, Bleeding Heart, Bachelor Buttons, Columbine and Achille just back of the border row.

The one hundred and fifty plants properly grown in a forty foot border will give the owner the greatest of pleasure as no matter what time he may look upon it he will find some flower in bloom that will interest him from the earliest days in spring until late in the fall.

W. J. Moyle.

Raspberries—Cultivation.

Howard Smith Poyssippi.

In selecting the varieties of bush fruits for your garden, you should always bear in mind that they must be able to stand 20° below zero and still yield a good crop of fruit.

Any variety which will stand this test is considered good for any part of Wisconsin.

Of red raspberries the only ones to be considered are the well known commercial varieties de-

rived from the native species, *Rubus strigosus*, the wild red raspberry, common throughout the north central states.

A number of Hybrid raspberries have been introduced, partaking somewhat of the characteristics of both the red and the black cap.

These follow the red in color and quality of fruit while they partake of the peculiarities of the black cap in not throwing up suckers or sprouts from the roots. The fruit is a dark purple color, very large, and a very good berry to can. The bushes grow to a height of eight feet on strong soils, but with us in Waushara county, they winter kill unless given protection. The Columbian and Haymaker varieties are of this type.

In selecting the varieties of reds it is best to take those that have been tried out and proved good. With us for a commercial berry, after trying many kinds, we plant the Loudon. This is a Wisconsin seedling said to be a cross between Turner, and Cuthbert, a midseason variety and the dark crimson berries sell quick on any market.

The bushes grow strong and stocky and are well able to carry the fruit up off the ground.

The Cuthbert is a very popular variety, one of the oldest and most generally planted in all parts of the United States. The berries are large conical, of a rich crimson, and good flavor. Bushes are strong growers and perfectly hardy.

Other good varieties are the Marlboro, King and Turner.

The black raspberry or thimble berry is a species confined wholly to America and is found wild from Virginia north and westward.

The cultivated varieties that are really good ones are the Cumberland, Gregg, and Kansas. The berries are large, firm and the yield is very good.

Raspberries will do well on any

soil, though the reds do require a richer soil than the black caps. Any good garden soil that will grow good corn or potatoes is all right for the raspberry patch.

Prepare the ground the fall before, unless heavy clay, which should be left until Spring with a good covering of manure, and then plow early. Remember that earliness with raspberry plants spells success. Get them in the ground before the buds have started and get the benefit of all plant food that was stored in the crown the fall before.

Our method of planting in the field is to plow two furrows across the field seven feet apart, then with stoneboat load of freshly dug plants, pass down between the furrows, with a man on each side. We drop the plants two feet apart for the reds and three feet for the black caps, drawing the dirt over them with the foot, we leave the trench to be filled later with the cultivator as the plant grows up. For the garden use spade to dig holes, planting about four feet each way.

Start cultivating at once and keep on as long as it is possible to get between the rows.

The second year is a very important season with the raspberry patch, it begins in March by cutting back the young bushes to about eighteen inches. All winter pruning should be done early to prevent bleeding.

Start the cultivator and hoe early, to get ahead of grass as this is our worst enemy, and will require considerable elbow grease to keep it down. Our method has been to drive the stakes and string the wires on each side of the row early in the spring, and have them ready for the new sprouts as they come up. This is important because if it is neglected until fall or the next spring, you are apt to find the young bushes ruined by the wind switching them back and forth. This applies especially to black caps.

Summer pruning:—We have

never practiced pinching back the red raspberries, though some claim it is better for the strong growing varieties like the Cuthbert.

The black caps should be pinched back at eighteen inches, going over at least 3 times to get all the late ones this means taking out the terminal bud to stop the growth and forcing the plant to throw out laterals as this makes a stronger stock and doubles the yield of the fruit.

Winter pruning:—We go through the rows any time after the ground is frozen, and thin out all the weak and diseased canes, thinning the black caps down to from four to six good strong stalks.

We get the best results from reds by letting them run into a hedge row and then thinning to eight or ten inches apart leaving only very best stalks for fruit.

The insects and diseases that we have had trouble with are the Snow or tree cricket, a small and whitish cricket-like insect, puncturing canes for two or three inches and depositing eggs in the punctures. This causes the canes and laterals to break off and you lose all the fruit.

The only remedy is to look them over carefully when doing the winter pruning, cut out and burn them.

The cane rust or anthracnose is a very hard disease to control. It appears in spots and patches on both the canes and leaves, attacks the base of the canes first, and spreads upward. It makes sunken patches on the canes, causing the fruit to dry up. The way we have controlled this disease to some extent, but not entirely, was by going over them in the fall. After the fruit is off cut out all the diseased stalks possible and let in air, and light. Frequent rotation not fruiting the plantation too long after the disease gets real bad. As a preventive we spray with Bordeaux mixture before the buds swell.

The Decorative Value of Foliage.

E. H. Niles, Oconomowoc.

Believing that the beauty of foliage in itself is not duly appreciated in its relation to the home, these remarks will be confined to that subject alone. Nature has been so lavish in the grass that covers the lawn, the forest with its cooling shade, the ferns of the glen, and the shrubs with their rich colorings in autumn, that we overlook their varied beauties in our quest for the more conspicuous beauty of the flowers. The landscape man and the nurseryman are tormented for plants that bloom all the time and as no plant has all the good qualities, the foliage is lost sight of in the effort to get more flowers. As a result efforts are expended, in nursing some freak like the Baby Rambler when some better plant would grow with half the care.

It is not my desire, to depreciate the value of flowers, and I could not do so if I did so desire, but I wish to emphasize the fact that the restful beauty of foliage should be the main feature in every landscape to make a framework for the picture and a background for the flowers. I presume that, technically, the flowers themselves are only a modified form of foliage but this is not a technical discussion.

We will pass over the economic value of foliage, for instance, as food for man and beast, as a purifier of the air, and as a modifier of the climate in tending to equalize the temperature and the humidity, and consider only the value of its beauty in the landscape.

Considered first broadly—look out over the hills to the forest in the distance, with the meadows and fields of waving grain between, notice how the old stump has been covered with vines, and how the grass is spreading over the cut through the hill. This is foliage in the mass which is always trying to cover the dingy spots in this old world of ours

and clothe it all in a covering of green—green the most restful of all colors and the greatest harmonizer of others.

Considered closely we might divide foliage into three classes—that desirable for its texture, its summer coloring, and its autumn coloring.

Referring first to the texture, there is probably not a leaf of all the thousands of patterns but which is artistic in outline. The great artists turn to the leaves for artistic designs probably more than to the flowers themselves. I would not presume to say which kinds are the most artistic but there are some shrubs with leaves of striking patterns to which I would like to call your attention. These are no more artistic than many others but are out of the ordinary. For instance the Ailanthus with its long tropical-like leaves, the Aralia Spinosa and the Cut Leaved Sumachs, the Rhus Typhinea Laciniata and the Rhus Glabra Laciniata, with their fern-like foliage and the delicate, feathery Tamarix. The Ornamental Grasses and many of the perennials can be used for the same purpose.

Referring to the summer coloring, by far the most important are the good greens as the Maples, Elms, Ash, Oaks, Pines, Spruce, Lilacs, Honeysuckles, Dogwoods, Rosa Rugosas, etc., but some of the odd colored ones are permissible to brighten up the planting especially if they are surrounded by plenty of green.

Notice the contrast of color by placing some of the yellow shrubs as the Golden Elder, Golden Spiraea or Golden Philadelphus, with the silvery green of the Russian Olive, the Sea Buckthorn or the Silver Poplar. Now add some of the purple as the Purple Filbert, Purple Barberry, Purple Beech, Purple Birch, Schwedlerii Maple, Prunus Pissardii or Rosa Rubrafolia. The variegated shrubs as the Variegated Dogwood and

Weigelia, are striking additions to such a group.

A fine color combination can also be made with evergreens by using the Concolor Fir, Blue Spruce, Blue Cedar, Golden Arbor Vitae and Cembra Pine in combination with the darker shades of green.

Once more it might be well to warn against using too much of these unnaturally colored plants. Some go so far as to say that none should be used, not even a Blue Spruce, but one might as well say that an American Beauty should not be used because it is not a natural production. Probably neither should be used on the lawn alone.

The autumn coloring is a very important item to consider. Among the trees probably the best are the Red or Swamp Maple, Sugar Maple, Red Oak, Pin Oak, Ironwood, Ash, and Linden. Some of the best of the shrubs are the Sumachs, Dogwoods, Viburnums, Barberry Thunbergii, Mahonia Aquifolia, Hazel, Cephalanthus, and Euonymus or Wahoo. The Blackberry should also have a place.

The Ivies and Bittersweet are probably the best of the vines.

It may be wrong to designate any of them as best as it is the blending of all that makes the soft color of autumn so attractive. The evergreens also play an important part in this scheme.

If you do not yet get the idea, contrast in your imagination a home on the desert with not a leaf in sight to break the sun's rays, to a home under a canopy of spreading trees, with a bluegrass lawn and border of shrubs, and you will begin to realize the value of foliage in the landscape.

The seed of many of our berried shrubs, such as buckthorn, sandthorn, and highbush cranberry, may be stratified in sand over winter and planted next spring.

Fruit Growing For Profit.

The irrigated valleys of the northwest were boomed as fruit producers; now their trees are blighting and it costs over a dollar a box to market their apples. What is extra expense to them is good profit to us. Strawberries, raspberries, blackberries and grapes bear every year if sprayed and properly handled. Small fruits are profitable where local markets are good or where the acreage is large enough to ship in car load lots.

Around Richland Center the strawberry acreage is now large enough to more than supply local markets. Too much for local market and not enough to ship to advantage is always disastrous. Don't plant strawberries to sell unless you expect to plant with others enough to raise the acreage to fifteen or twenty acres. The raspberry acreage will be raised to car lot shipments and it will be safe to plant as many acres as possible. The blackberry acreage is large enough for local market with this year's planting. There is no immediate prospect of acreage for car shipments though there should be.

Blackberries paid four hundred dollars an acre last year. Don't plant blackberries to sell unless you can raise the acreage to at least twelve acres.

The grape acreage in this and adjoining counties is now large enough for local markets, a shipping market is doubtful.

Plums that ripen before the middle of August should find a good market near home. The acreage in sight is small.

The cherry acreage will be large enough to reach car shipments when trees are large; safe to plant acres of cherries as our crop will all be in market before Sturgeon Bay cherries are ripe.

The market for currants and gooseberries is very limited and acreage nearly nothing.

Apple acreage in Wisconsin is

increasing, one locality in Crawford county now has about 400 acres. These are mostly fall apples and will make pies for Chicago people for a few days and will help make a local market.

The acreage of fruit is wonderful. Sparta is a small place a hundred miles north. The berry acreage has reached over 600. Some people think 600 acres of berries would supply the world, whereas it supplies adjacent territory in the northwest for a short season. It is safe to plant any amount of winter apples or extra quality apples like the McIntosh. *G. H. Townsend, in Richland Center Observer, April 16, 1914*

Cranberry Notes.

J. W. Fitch, Cranmoor, Sec.

The Wisconsin cranberry crop in the Cranmoor district will not be as large as expected though the quality and the good conditions of the harvest season will make it a very good one for dealer and consumer as the keeping qualities should be unusually good. The reason for the shortage is not apparent since damage from insects was below the normal. Blight is given by many growers as the reason, but on some bogs the blossoms were not there to blight. It may have been caused by the work of the tip-worm last year. Very little is known as yet of the life history of this pest, which is doing a larger and larger amount of work every year, and is a problem that calls for immediate investigation. As far as known there are three broods which successively destroy the buds as they form or try to form as soon as the first are eaten. If there was but one brood no great damage would result as there is plenty of time for new buds to form but these are eaten by the second and third broods. Many bogs show the work of this pest in the Cranmoor district. It

would seem that spraying would be the only remedy as water cannot reach them, working as they do in the top of the vines and at a time when it would be fatal to the crop to submerge the vines.

Its work looks like the work of frost, that is the top leaf tips over the bud and dries up and the bud under it is found to be eaten out. Some arrangements should be made whereby a thorough study of this insect be made by the State or U. S. experts. Could we get such splendid and effective help on this problem as we have had from Dr. Charles L. Shear of the Dept. of Agriculture in Washington in the problems of plant diseases, it would not be long before we would be able to curtail much of the damage.

What the price will be is the most interesting question now that the crop is gathered and our Sales Company will no doubt have a chance to show what it can do. With a much larger crop in sight and as probable smaller consumption it would seem as if prices might be lower than last year, but the fact remains that for those who like them, and there would be many more of these were it known how to properly cook them, there is no fruit that can take their place. With a relatively low price for the large crop of early blacks from Massachusetts, consumption should be large even if sugar is high, and this will mean a fair price for our product.

As soon as frost cuts the tops of cannas or dahlias, lift the plants, removing all but five or six inches of the top. Let the roots dry a few hours and store in a room of even temperature. It should not be too warm or dry. The bulbs should not shrivel or be moist enough to start into growth.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul, Minn.

Bugs.

"We answer questions." Almost every man, woman and Chinaman in Wisconsin has seen or heard this slogan at one time or another. We certainly do aim to answer questions both through this journal or by letter but often the answers lack much both of "finish" and exactitude, especially when the questions refer to bugs.

The following answer in the July number to a member who asked for a description of the plum curculio will serve to sharpen this point:—"The plum curculio is a hump-back homely little cuss about one-eighth inch long and covered with warts; has a proboscis, 6 legs and a mean disposition."

Later the inquiry was referred to Prof. Sanders whose training and position is such that he cannot afford to be otherwise than formal and exact. Sanders described the beast as follows: "The plum curculio is a very small, brown roughened beetle which is rarely seen by orchardists unless they take particular pains to jar them from the trees onto canvas or into an umbrella. The curculio is about an eighth of an inch in length and beautifully colored and sculptured when viewed through a microscope. It damages apples, pears, plums, cherries, peaches and in fact practically all orchard fruits by puncturing the fruit for the purpose of feeding and egg-laying."

Just shows the difference in viewpoint. Here was a bug, utterly depraved in every instinct, which to the untrained eye was only a mass of warts but viewed by the eye of a trained observer appears "beautifully colored and sculptured."

Now kind reader as you have come so far without quitting you shall be rewarded. Beginning with this issue (see p. 34) Mr. Howard assistant to Prof. Sanders, will write notes on insects

for WISCONSIN HORTICULTURE and answer questions. This promises to be one of the best features of the paper. Ask questions, Mr. Howard will answer them.

Commercial Surgery for Sick Trees Demands Reliable Men.

A cavity in a decayed tree is something like a cavity in a decayed tooth. If an unreliable tree surgeon who has been called in to save the tree only partially removes the diseased part of the wood, uses no antiseptic coatings in the cavity and fills it up with cement the tree is no more cured than is a person whose decayed tooth has not been properly filled by a dentist. The only difference is that after the tree cavity has been covered, if the work has not been properly done, the tree has no way of making its trouble known except by further decay.

Within the last decade there has been a great increase in demand for surgeons to repair decayed shade trees, but the possibilities of practicing fraud in this profession like the instance just cited have tempted so many unreliable people to dabble in the science that tree surgery has fallen somewhat into disrepute. The U. S. Department of Agriculture realizes that commercial tree surgery should occupy a high place in the estimation of the public, and has recently issued a pamphlet entitled, "Practical Tree Surgery," wherein suggestions are made for improvement along these lines.

As in all professions, there are reliable and unreliable men and firms competing for contracts in tree surgery. In recent years so many occasions have arisen when property owners felt the necessity of calling in commercial tree surgeons to attend to their trees that there are now numerous firms, both honest and dishonest, engaged in the work. Usually tree surgery is practiced in

connection with some nearly related line, but often it is taken up as a business of itself. When a blight such as the chestnut bark disease, infects the trees of a district, the community, or individuals in it, will often spend considerable money to control ravages which may rob the whole district of its trees. An affection like the chestnut bark disease is contagious. It requires scientific knowledge of the disease to know whether an affected tree should be destroyed at once or is worth treating. It requires scientific training to understand the manner of growth of the fungi causing the disease and what treatment is best.

Many individuals who have had faith in tree surgery have lost it through following the advice of unreliable tree surgeons who claimed to be able to diagnose a case, but whose main interest was to collect a good sum of money for their work.

MISUSE OF PRUNING HOOKS AND CLIMBING DEVICES.

Besides the careless filling of decayed cavities in trees, there are other practices of certain so-called "tree surgeons" that do the trees more harm than good. Many of these "surgeons," as well as the people who employ them, do not realize the danger arising from fresh injuries to a tree. The tree owner should realize that prompt attendance to fresh injuries will largely do away with the need of tree surgery 15 or 20 years hence. The tree surgeons must realize that if they make fresh injuries in the living bark, when treating decayed portions, they are laying the tree open to more dangers of infection that will result in further decay.

Just as a person is subject to infection through cuts and scratches, trees are rendered subject to infection by having their living bark torn. Notwithstanding this, many tree surgeons use

pruning hooks and climbing spurs and cut fresh gashes in the tree. To break off small dead branches a workman may use a long pruning hook as though it were a club. In doing so the hook usually causes injury to the young bark near by. Every new wound may furnish a new point of entrance for decay, even though the old dead branch may have been removed.

The use of climbing spurs should be particularly avoided on trees in vicinities where there is a contagious infection. They simply render the treated tree all the more liable to catch the disease which is "in the air."

All properly equipped firms of commercial surgeons should have ladders that would reach 40 or more feet into a tree. Ladders, ropes, and rubber-soled shoes will allow a man to reach practically every part. Reliable estimates indicate that it takes somewhat longer (perhaps 25 per cent on an average) to do work on a tree when these are used instead of climbing spurs, and this is one reason why many firms who value remuneration more than reputation use the spurs.

TO MINIMIZE UNRELIABILITY.

The U. S. Department of Agriculture is suggesting a plan that may help put commercial tree surgery on a better basis. Owners are urged to have a definite written contract with the tree surgeons they employ, and the following is suggested as a model for such contract.

(1) No climbing spurs shall be used on any part of a tree.

(2) The shoes worn by the workmen shall have soft rubber bottoms.

(3) Ordinary commercial orange shellac shall be applied to cover the cut edges of sapwood and cambium (which is the soft formative tissue from which the new wood and bark originate) within five minutes after the final trimming cut is made.

STATE FAIR PREMIUMS

Following is a complete list of awards on apples at the 1914 State Fair taken from the books of Secretary MacKenzie. Other lists will be published in later issues.

APPLES.

Display not to exceed 20 varieties.

1st.	Geo. Townsend, Richland Center, Wis.	\$20.00
2nd.	J. S. Palmer, Baraboo, Wis.	15.00
3rd.	L. E. Montgomery, Reedsburg, Wis.	12.00
4th.	W. I. Lawrence, Sturgeon Bay, Wis.	8.00
5th.	Great Northern Nursery, Baraboo, Wis.	6.00
6th.	D. E. Bingham, Sturgeon Bay, Wis.	4.00

Display of ten varieties.

1st.	Geo. Townsend	15.00
2nd.	Great Northern Nursery	10.00
3rd.	D. E. Bingham	8.00
4th.	L. E. Montgomery	6.00
5th.	J. S. Palmer	4.00
6th.	W. I. Lawrence	2.00

Display of five winter varieties.

1st.	Geo. Townsend	8.00
2nd.	L. E. Montgomery	6.00
3rd.	Great Northern Nursery	4.00
4th.	A. W. Lawrence, Sturgeon Bay, Wis.	2.00

Best Fall Seedling.

1st.	No award.	
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Best Winter Seedling.

1st.	Balgheim Bros., Twin Bluffs, Wis.	5.00
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Largest Apple.

1st.	Kickapoo Development Co., Gays Mills, Wis.	3.00
2nd.	J. S. Palmer	2.00
3rd.	S. L. Brown & Son, Gays Mills, Wis.	1.00

SINGLE PLATE

Anism.

1st.	A. D. Brown, Baraboo, Wis.	1.50
2nd.	J. S. Palmer	1.25
3rd.	S. L. Brown & Son	1.00
4th.	Great Northern Nursery .....	.75

Antonovka.

1st.	A. D. Brown	1.50
2nd.	H. R. Platt, Baraboo, Wis.	1.25
3rd.	Balgheim Bros.	1.00

Alexander.

1st.	A. K. Bassett, Baraboo, Wis.	1.50
2nd.	A. W. Lawrence	1.25
3rd.	D. E. Bingham	1.00
4th.	W. I. Lawrence .....	.75

Beautiful Arcade.

1st.	D. E. Bingham	1.50
2nd.	W. I. Lawrence	1.25
3rd.	A. W. Lawrence	1.00
4th.	S. T. Learned .....	.75

Ben Davis.

1st.	Great Northern Nursery	1.50
2nd.	Kickapoo Development Co.	1.25
3rd.	S. L. Brown & Son.	1.00
4th.	H. R. Platt75
5th.	A. K. Bassett50

Delicious.

1st.	Balgheim Bros.	1.50
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(4) All cut or shellaced surfaces shall be painted with commercial creosote, followed by thick coal tar.

(5) All diseased, rotten, discolored, water-soaked, or insect-eaten wood shall be removed in cavity work and the cavity inspected by the owner or his agent before it is filled.

(6) Only a good grade of Portland cement and clean, sharp sand in no weaker mixture than 1 to 3 shall be used to fill cavities.

(7) The contractor shall repair free of expense any defects that may appear in the work within one year.

If the owner prefers to have a cavity filled with asphalt or other material instead of cement, the contract can be altered accordingly. If it is desirable to substitute some other preparation for shellac, this can be done. Similarly, under certain conditions, various other modifications may be made, although alterations in Nos. 1, 2, 5, and 7 should be made with caution. It may so happen that if all insect-eaten wood is removed, the tree may be dangerously weakened; under such conditions the diseased matter can be removed to solid wood and the cavity fumigated. Other suggestions along these lines may be found in the pamphlet issued by the Department.

INVITATION TO COOPERATE.

The Department realizes that this science is comparatively new and that methods in the near future may be developed that will prove far superior to some now in common use. It therefore invites correspondence either from individuals or firms concerning new methods of treatment and is prepared to advise regarding any particular method so far as experimental results will permit. The cooperation of all who are interested is necessary for this work. All interested are urged to write for the new bulletin.

		Dudley.	
1st.	W. I. Lawrence	.....	1.50
2nd.	A. W. Lawrence	.....	1.25
3rd.	D. E. Bingham	.....	1.00
4th.	F. Bamford, Plymouth, Wis.	.....	.75
5th.	L. E. Montgomery	.....	.50

		Eureka.	
1st.	A. W. Lawrence	.....	1.50
2nd.	W. I. Lawrence	.....	1.25
3rd.	D. E. Bingham	.....	1.00

		Fameuse.	
1st.	W. I. Lawrence	.....	1.50
2nd.	A. W. Lawrence	.....	1.25
3rd.	D. E. Bingham	.....	1.00
4th.	Fred Schvenick	.....	.75
5th.	Geo. Townsend	.....	.50

		Fall Orange.	
1st.	A. K. Bassett	.....	1.50
2nd.	Fred Schvenick	.....	1.25

		Gano.	
1st.	J. E. Baer, Baraboo, Wis.	.....	1.50
2nd.	W. I. Lawrence	.....	1.25
3rd.	John Walters, Bayfield, Wis.	.....	1.00
4th.	Balgheim Bros.	.....	.75
5th.	D. E. Bingham	.....	.50

		Gem City.	
1st.	A. D. Brown	.....	1.50
2nd.	A. K. Bassett	.....	1.25

		Grimes Golden.	
1st.	L. E. Montgomery, Reedsburg, Wis.	.....	1.50
2nd.	A. W. Lawrence	.....	1.25
3rd.	W. I. Lawrence	.....	1.00
4th.	Fred Schvenick	.....	.75

		Gideon.	
1st.	Balgheim Bros.	.....	1.50
2nd.	Fred Schvenick	.....	1.25
3rd.	A. W. Lawrence	.....	1.00
4th.	D. E. Bingham	.....	.75
5th.	John Walters	.....	.50

		Golden Russett.	
1st.	Kickapoo Development Co.	.....	1.50
2nd.	J. S. Palmer	.....	1.25
3rd.	H. R. Platt	.....	1.00
4th.	D. E. Bingham	.....	.75
5th.	W. I. Lawrence	.....	.50

		Iowa Beauty.	
1st.	A. W. Lawrence	.....	1.50
2nd.	W. I. Lawrence	.....	1.25
3rd.	D. E. Bingham	.....	1.00

		Jonathan.	
1st.	Geo. Townsend	.....	1.50
2nd.	Balgheim Bros.	.....	1.25
3rd.	Kickapoo Development Co.	.....	1.00
4th.	W. A. Toole, Baraboo, Wis.	.....	.75

		Longfield.	
1st.	Balgheim Bros.	.....	1.50
2nd.	S. L. Brown & Son	.....	1.25
3rd.	A. D. Brown	.....	1.00
4th.	D. E. Bingham	.....	.75

		Lubsk Queen.	
	Balgheim Bros	.....	1.50

		Lowland Raspberry.	
	A. D. Brown	.....	1.50

Malinda.		
1st.	W. I. Lawrence	1.50
2nd.	A. W. Lawrence	1.25
3rd.	Great Northern Nursery	1.00
4th.	D. E. Bingham .....	.75
5th.	John Walters .....	.50

McIntesh.		
1st.	Great Northern Nursery	1.50
2nd.	J. S. Palmer	1.25
3rd.	Kickapoo Development Co.	1.00
4th.	A. W. Lawrence .....	.75
5th.	W. I. Lawrence .....	.50

McMahon.		
1st.	J. S. Palmer	1.50
2nd.	Balgheim Bros.	1.25
3rd.	S. L. Brown & Son	1.00
4th.	S. T. Learned, Sturgeon Bay, Wis. ....	.75
5th.	Kickapoo Development Co. ....	.50

Newell.		
1st.	Geo. Townsend	1.50
2nd.	Kickapoo Development Co.	1.25
3rd.	S. L. Brown & Son	1.00
4th.	J. S. Palmer .....	.75
5th.	D. E. Bingham .....	.50

Northern Spy.		
1st.	J. S. Palmer	1.50
2nd.	Geo. Townsend	1.25
3rd.	S. L. Brown & Sons	1.00
4th.	Arthur Brunn, Hales Corners, Wis. ....	.75
5th.	J. A. White, Brookfield, Wis. ....	.50

Northwestern Greening.		
1st.	Kickapoo Development Co.	1.50
2nd.	Great Northern Nursery Co.	1.25
3rd.	A. D. Brown	1.00
4th.	J. S. Palmer .....	.75
5th.	S. L. Brown & Sons .....	.50

Okabana.		
1st.	John Walters	1.50

Oldenberg (Duchess)		
1st.	A. W. Lawrence	1.50
2nd.	W. I. Lawrence	1.25
3rd.	J. S. Palmer	1.00
4th.	D. E. Bingham .....	.75
5th.	John Walters .....	.50

Patten Greening.		
1st.	Kickapoo Development Co.	1.50
2nd.	A. W. Lawrence	1.25
3rd.	J. S. Palmer	1.00
4th.	Great Northern Nursery Co. ....	.75
5th.	John Walters .....	.50

Pewaukee.		
1st.	L. E. Montgomery	1.50
2nd.	S. L. Brown & Son	1.25
3rd.	J. S. Palmer	1.00
4th.	A. K. Bassett .....	.75
5th.	J. A. White .....	.50

Plumb Cider.		
1st.	J. S. Palmer	1.50
2nd.	L. E. Montgomery	1.25
3rd.	Great Northern Nursery Co.	1.00
4th.	A. K. Bassett .....	.75
5th.	Balgheim Bros. ....	.50

St. Lawrence.		
1st.	Balgheim Bros.	1.50
2nd.	Geo. Townsend	1.25

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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Will be glad to figure on your wants either in large or small quantities.

WAUWATOSA, WISCONSIN

Salome.

1st.	Great Northern Nursery Co.	1.50
2nd.	H. R. Platt	1.25

Westfield.

1st.	J. S. Palmer	1.50
2nd.	D. E. Bingham	1.25
3rd.	A. K. Bassett	1.00
4th.	L. E. Montgomery	.75
5th.	A. K. Bassett	.50

Scott's Winter.

1st.	Balgheim Bros.	1.50
2nd.	A. D. Brown	1.25
3rd.	D. E. Bingham	1.00
4th.	Great Northern Nursery Co.	.75
5th.	J. S. Palmer	.50

Talman.

1st.	W. I. Lawrence	1.50
2nd.	A. W. Lawrence	1.25
3rd.	S. L. Brown & Son	1.00
4th.	D. E. Bingham	.75

Twenty Ounce.

1st.	Balgheim Bros.	1.50
2nd.	Pawson Bros.	1.25
3rd.	Fremont Lounsbury	1.00

Utter.

1st.	Great Northern Nursery Co.	1.50
2nd.	L. E. Montgomery	1.25
3rd.	W. I. Lawrence	1.00
4th.	H. R. Platt	.75
5th.	D. E. Bingham	.50

Yellow Transparent.

1st.	Balgheim Bros.	1.50
2nd.	W. I. Lawrence	1.25
3rd.	D. E. Bingham	1.00
4th.	A. W. Lawrence	.75

Walbridge.

1st.	S. L. Brown & Son	1.50
2nd.	J. S. Palmer	1.25
3rd.	Kickapoo Development Co.	1.00
4th.	Balgheim Bros.	.75
5th.	L. E. Montgomery	.50

Wealthy.

1st.	L. E. Montgomery	1.50
2nd.	A. K. Bassett	1.25
3rd.	J. S. Palmer	1.00
4th.	S. L. Brown & Sons	.75
5th.	Balgheim Bros.	.50

Willow Twig.

1st.	J. S. Palmer	1.50
2nd.	L. E. Montgomery	1.25
3rd.	W. I. Lawrence	1.00
4th.	A. W. Lawrence	.75

Windsor.

1st.	Geo. Townsend	1.50
2nd.	H. R. Platt	1.25
3rd.	J. S. Palmer	1.00
4th.	A. W. Lawrence	.75
5th.	S. T. Learned	.50

Wolf River.

1st.	J. S. Palmer	1.50
2nd.	L. E. Montgomery	1.25
3rd.	Balgheim Bros.	1.00
4th.	Kickapoo Development Co.	.75

PECK OF APPLES.

Dudley.

1st.	D. E. Bingham	4.00
2nd.	A. W. Lawrence	3.00
3rd.	W. I. Lawrence	2.00
4th.	L. E. Montgomery	1.00

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HARDY NURSERY STOCK

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Beautify Your Home

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SHRUBS and FLOWERS

By means of the following bargains you can make your grounds attractive at small cost. Until our surplus is exhausted, we are making the following special offer:

100 shrubs in variety	-----	\$10.00
50 Shrubs in variety	-----	5.25
100 Perennial flowers in var.	-----	8.00
50 Perennial flowers in var.	-----	4.25
25 Perennial flowers in var.	-----	2.25

Write for complete list of varieties to select from or give us an idea of what you want and enclose a money order and we will make a suitable selection.

WHITE ELM NURSERY CO., OCONOMOWOC, WIS.

		Fameuse.	
1st.	Geo. Townsend		4.00
2nd.	W. I. Lawrence		3.00
3rd.	A. W. Lawrence		2.00
4th.	A. D. Brown		1.00
		Golden Russet.	
1st.	Kickapoo Development Co.		4.00
2nd.	J. S. Palmer		3.00
3rd.	H. R. Platt		2.00
4th.	A. W. Lawrence		1.00
		Longfield.	
1st.	Balgheim Bros.		4.00
		Lubsk Queen.	
1st.	S. T. Learned		4.00
2nd.	Balgheim Bros.		3.00
		McMahon.	
1st.	Balgheim Bros.		4.00
2nd.	Geo. Townsend		3.00
3rd.	J. S. Palmer		2.00
4th.	S. T. Learned		1.00
		Newell.	
1st.	J. S. Palmer		4.00
2nd.	Kickapoo Development Co.		3.00
3rd.	A. D. Brown		2.00
4th.	L. E. Montgomery		1.00
		Northwestern.	
1st.	Geo. Townsend		4.00
2nd.	L. E. Montgomery		3.00
3rd.	Great Northern Nursery Co.		2.00
4th.	A. K. Bassett		1.00
		Patten.	
1st.	Great Northern Nursery Co.		4.00
2nd.	J. S. Palmer		3.00
3rd.	Kickapoo Development Co.		2.00
		Pewaukee.	
1st.	J. S. Palmer		4.00
2nd.	L. E. Montgomery		3.00
3rd.	Geo. Townsend		2.00
4th.	A. K. Bassett		1.00
		Plumb Cider.	
1st.	J. S. Palmer		4.00
2nd.	L. E. Montgomery		3.00
3rd.	Great Northern Nursery Co.		2.00
4th.	Balgheim Bros.		1.00
		Westfield.	
1st.	J. S. Palmer		4.00
2nd.	D. E. Bingham		3.00
3rd.	Balgheim Bros.		2.00
4th.	A. W. Lawrence		1.00
		Talman.	
1st.	Great Northern Nursery Co.		4.00
2nd.	L. E. Montgomery		3.00
3rd.	D. E. Bingham		2.00
		Wealthy.	
1st.	J. S. Palmer		4.00
2nd.	L. E. Montgomery		3.00
3rd.	A. K. Bassett		2.00
4th.	Kickapoo Development Co.		1.00
		Windsor.	
1st.	Geo. Townsend		4.00
2nd.	J. S. Palmer		3.00
3rd.	H. R. Platt		2.00
4th.	D. E. Bingham		1.00
		Wolf River.	
1st.	J. E. Palmer		4.00
2nd.	L. E. Montgomery		3.00
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Sells First-Class Wisconsin Grown Trees

Our Trees Live. We have over 50,000 No. 1 apple trees of the late varieties, all of our own growing; and a nicer lot of trees was never grown. They are smooth, clean, healthy, hardy and just the kind of trees to plant in a commercial orchard.

Before you place your order, Mr. Planter, for your trees, write us for prices.

We are the largest growers of apple trees in the state, we are confident that we can furnish trees that will please you, and our prices are right.

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

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Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16 quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Co.

Dept. D, Cumberland, Wis.

Make Your Own Barrels

At a cost of about 29c.

"BARREL MAKING SIMPLIFIED"

Tells How - - - Price \$1.

Sent free for 6 names of Apple

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Best bu. box Dudley.

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McMahon.

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1st. L. E. Montgomery 4.00
2nd. J. S. Palmer 3.00
3rd. Balgheim Bros. 2.00

BARRELS.

Best barrel Dudley.

1st. A. W. Lawrence 6.00
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Fameuse.

1st. D. E. Bingham 6.00

McIntosh.

1st. Great Northern Nursery Co. 6.00
2nd. J. S. Palmer 4.00
3rd. Balgheim Bros. 2.00

McMahon.

1st. Balgheim Bros. 6.00
2nd. S. T. Learned 4.00

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1st. Great Northern Nursery Co. 6.00
2nd. L. E. Montgomery 4.00
3rd. Geo. Townsend 2.00
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1st. Balgheim Bros. 6.00

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1st. Great Northern Nursery Co. 6.00

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1st. Great Northern Nursery Co. 6.00

Wealthy.

1st. L. E. Montgomery 6.00
2nd. Balgheim Bros. 4.00
3rd. W. I. Lawrence 2.00
4th. Great Northern Nursery Co. 1.00

Wolf River.

1st. L. E. Montgomery 6.00
2nd. J. S. Palmer 4.00

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KELLOGG TREES
 Wisconsin Grown for Wisconsin Planters
SIXTIETH YEAR
 Specialties.—Apple and Americana plum trees, small fruit plants. Everbearing strawberries. A card will bring our special
INTRODUCTORY OFFER
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 Your garden is not complete without a collection of our best
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 Send us a \$1.00 bill and we will express you ten good roots of our selection. Get our catalog.
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**Orchard Land in
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 Surface rolling; soil, rich clay loam underlaid with limestone. The orchards of adjoining farms show the adaptability of this part of Wisconsin to apple growing. Near railroads and markets. Prices reasonable. Write for particulars.
William J. Starr
 Eau Claire, - - - - - Wis.

**“We have a Fine Lot of
 Plants for the Garden.”**
SEND FOR LIST
J. E. MATHEWSON
 SHEBOYGAN, WISCONSIN

NOTES ON INSECTS

By N. E. Howard

THE COTTON WORM MOTH

It may seem strange to Wisconsin people that the cotton worm moth should be found in this northern region. This moth, whose larvae is a serious pest of cotton, occasionally appears in this part of the country in the autumn as a small brown moth, much resembling the adult of the common army worm. Its appearance is due to its habit of migrating in swarms about this time of the year, if at all.

Until the advent of the cotton boll weevil, this was the most serious pest of cotton. In the early part of the century, before the discovery of the value of paris green as an insecticide, its ravages periodically ruined the cotton crop in many sections. In average years the natural parasites keep the insect in check, but the moth is so prolific that if it gets ahead of the parasites, it soon reaches dangerous numbers.

In this section, it is of no great economic importance except when it appears in exceedingly large numbers in fruit regions. At such times the adults may cause damage to ripe fruit by piercing it with its exceptionally strong proboscis. Its natural food in the adult stage is the exudation of fruits, leaves and aphids. The moths may often be seen on grapes, plums, and fallen fruits. This moth has been reported from numerous places in the state within the last two weeks, doing considerable damage to ripe fruits and vegetables. No fear of damage from its larvae need be entertained in this latitude.

N. E. H.

AGAIN THE APPLE WORM

Again it is apparent that it is becoming more and more neces-

SWEEPSTAKES.

Best and largest exhibit of named fruits.

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3rd.	W. I. Lawrence	21.72
4th.	D. E. Bingham	17.50
5th.	L. E. Montgomery	16.70
6th.	Kickapoo Development Co.	13.91
7th.	A. K. Bassett	13.59
8th.	Great Northern Nursery	12.34
9th.	H. R. Platt	11.09
10th.	A. W. Lawrence	8.58
11th.	A. D. Brown	7.50
12th.	S. L. Brown & Son	6.42
13th.	Geo. Townsend	5.15
14th.	John Walters	2.18
15th.	Dawson Bros.	1.72
16th.	Fred Schoenick	1.26
17th.	Arthur Brunn	.73
18th.	F. Bamford	.78
19th.	T. Learned	.78
20th.	A. White	.78
21st.	J. A. Baer	.63
22nd.	Geo. Jeffries	.63
23rd.	W. A. Tocle	.63
24th.	Fremont Lounsbury	.47

SPRAY

YOU ARE GOING TO SPRAY THIS SPRING

NO matter how small or extensive your operations there is a proven MYERS OUTFIT—Bucket, Barrel or Power, that will just fit your requirements and do the work rapidly and effectively.

Don't take a chance on an outfit that you are not familiar with. Cut out failures by spraying MYERS WAY. It pays big returns in better crops and high market prices.

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APPLES
PEACHES
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PLUMS
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GRAPES
BERRIES
POTATOES
MELONS
VEGETABLES
FLOWERS
VINES
SHRUBBERY
WEEDS
ETC.

MYERS WAY

sary to spray for the second brood of codding moth. With the apple harvest comes the object lesson of wormy apples, that we cannot afford to omit the second spray. The method of breeding the adult moths from the larvae in the June drop has been too often explained to need repetition here. N. F. H.

WINGED APHIDS

Anyone who has been working outside for the last few days must have noticed the very small winged "flies" which are so abundant every Fall. These small gnat-like insects are the winged forms of the different species of aphids or plant lice, sometimes called the "green fly." At this time the fruit plant lice are migrating from the grasses to the apple trees, the currant aphids from the lettuce to the currant, and the plum aphids from the hops to the plum. Small black eggs are laid on the stems and branches of the host tree and these hatch in the spring and soon give rise to the millions of plant lice which are so common in the spring but seem to disappear later in the summer.

N. F. H.

SANITATION

At this time, after the crops have been harvested from the gardens, it is quite natural to neglect them. It must be remembered, however, that many of our most serious garden insects, overwinter in rubbish or just underground. Among these are the squash bug, plum curculio, cutworms, white grubs, wireworms, cabbage worms, cucumber beetles, flea beetles, and numerous other injurious insects. Cleaning up the rubbish, and destroying it by burning; or remove it to the manure pile or barnyard where it will be beaten down. Plow the ground and kill thousands of the hibernating insects. N. F. H.

(Continued on p. 36)

LANDSCAPE DEPARTMENT SERVICE



A BLOCK of Ou. American Elms, one of Our Favorites.

—120 ACRES—
QUALITY SERVICE PRICE

The three essentials to be considered in buying

NURSERY STOCK

We are taking orders for PARKS, CEMETERIES, SCHOOL GROUNDS, LIBRARIES, ETC., FOR FALL PLANTING. Our stock of shrubs, perennials and shade trees very complete, largest in Wisconsin. Come and see us or write us today.

THE COE, CONVERSE & EDWARDS CO.
FORT ATKINSON, WIS.

CHASE QUALITY TREES

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For Spring 1915 delivery we have a fine assortment of piece-root grafted apples, including the reliable Wisconsin varieties:

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| DUCHESS | WEALTHY | McINTOSH |
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| | WHITNEY | |

These are "CHASE QUALITY TREES", Western New York grown, the kind that bring results.

Ask for catalogue 58W and booklet on planting.

THE CHASE GUARANTEE

WE WILL REPLACE FREE IN OUR NEXT DELIVERY ANY STOCK THAT FAILS TO LIVE, PROVIDED WE ARE NOTIFIED BEFORE AUGUST 1st, AFTER DELIVERY AND THE CONTRACT OF PURCHASE ACCOMPANIES THE NOTICE.

CHASE BROTHERS COMPANY

The Rochester Nurseries, Rochester, N. Y.

(Continued from p. 35)

WHITE GRUBS

Now is the time to plow the prospective strawberry plot in order to kill as many of the young white grubs as possible. All indications signify that the coming year is to be a banner one for the white grub. No matter what may be the arguments against fall plowing for other reasons, it is essential that farmers take advantage of this only known method of alleviating the damage done by this most serious Wisconsin pest. It is hoped that research will bring out some effective method of controlling this elusive insect.

N. F. H.

From The Sunny South.

Dear Sir—"Please find enclosed fifty cents for membership. I intended to send this sooner but I was busy with my grapes. The grapes did not do well this year, a late frost (will you believe me) nipped part of the crop; the hot winds claimed a share and a hail storm ruined some of the finest I have."

A. B.

Oklahoma.

Some Questions Asked at the State Fair.

Where do California grapes grow?

Were these apples raised in Wisconsin?

Are these Michigan apples?

Do apples grow in Wisconsin?

Is this an off year for apples?

Are these Wisconsin apples?

" " " "

" " " "

" " " "

" " " "

(Answers deleted by censor.)

When digging gladioli bulbs, save the small bulblets for future planting. In time these will make flowering bulbs.

Orchard and Garden Notes.

Gladioli should be cut when the flowers first begin to open, as the flowers will last longer and the bulb will develop better.

Some of the double portulacas have been very showy this summer. Try a few as a border plant next year.

It will soon be time to take in celery for winter storage.

Plant tulips for spring flowering. They should be set about four inches deep.

Black walnuts, butternuts, etc., should be planted or stratified as soon as ripe. Once they become dry they seldom germinate.

The Kickapoo Valley Wisconsin's Favored Fruit District

Orchards planted and developed. Choice orchard tracts for sale at farm land prices.

The Kickapoo Development Co. Madison or Gays Mills, Wis.

WE SELL BULBS

Plant During October

Our bulbs have arrived from Holland and the quality is the best we have ever imported. With every order we include, "A Complete Treatise on the Culture of Holland Bulbs for Window and Garden," free.

With every order amounting to \$1.00 or more received up to October 31 we will include a premium.

Catalogue free upon request.

BULBS OF ALL KINDS

HOFMANN'S DUTCH BULB HOUSE BULB SPECIALISTS

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WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, November, 1914

Number 3

Hardy Perennials for the Farm.

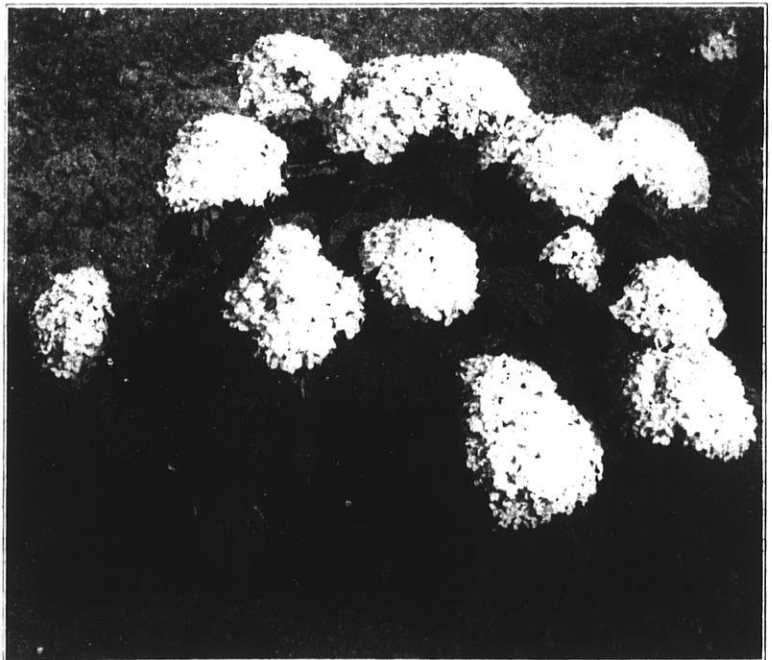
Clarence Wedge, Albert Lea, Minn.

In Minnesota Horticulturist.

As I pass by the farm houses along the road I often wish that I could drop in on them and offer an idea or two of my own that might help them to an enjoyment of some of the rich things of the garden, new and old, that in these days can be had in plenty for very little expense and trouble—things that can be had almost as easily as the burdock and wild parsnip that year after year hold their places in the fence corners against all comers. I wish that I could introduce to them my sister's big red peonies, that for two weeks of June make a rich show of great red and white blooms six inches across, and tell them how they come up each season with great strong shoots that require no more trouble than so many hills of pieplant. If too poor to buy plants for such a large bed I would like to show them how easy it is to divide the few choice plants that might be bought to start with, and in a few years have enough to fill a bed as large as a room. Starting with one plant that cost me \$5 a few years ago, by taking up and dividing to one eye each September, in

four years I had seventy-five good-sized plants that, planted two feet apart each way, would have covered a bed fourteen feet square.

cession till the latest frosts of autumn. I once set out a bed of them, bright reds, in a neglected corner where we could not conveniently get at them to culti-



Hydrangea arborescens, especially useful for shady locations. From a photo taken at Mr. Wedge's place in July of a small spring-set plant. Courtesy A. W. Latham, Sec. Minn. Hort. Society.

But the peony, grand as it is while it lasts, is only in bloom a few weeks of early summer. The perennial phlox begins to set up its dazzling colors a few days later and keeps up a perfect suc-

cession till the latest frosts of autumn. I once set out a bed of them, bright reds, in a neglected corner where we could not conveniently get at them to culti-

my heart jump for a second, as it it gave out the color and appearance of a mass of flames against the granary. The phlox ought to be divided once in four years, and it is a pity to leave so rich a flower unattended, but it will live on and fight its way against adversities that would utterly destroy the most persistent annuals. Phlox is the easiest flower to multiply. At least five can be made of each plant, and every division will grow if advantage is taken of a cool, wet season in September.

and make sure, and there among its native flags I picked the very prettiest of the early iris. How did they get there, and how could they hold out against the rank grasses, and why had I never seen such before? The next day I had them carefully domesticated under an apple tree at the end of our garden, where every year we find them faithful to their trust. This is the earliest of the great iris family. The rest arranged in white and blue and yellow and pink, and of all statures from six inches to four feet, they follow on

quets of this gaudy Indian painted flower makes as rich and satisfying a show of color as anything that grows. And the plants never ask a favor of anyone. Picking the flowers as fast as they offer themselves, they will keep blooming from June till freezing weather. The only people that can't have them are those that are too careless to plant them. A packet of seed can be had for a dime, and after the first few weeks the little plants will hold their own against all comers, as they have in the dry Montana mountains since the day when God said, "Let the earth put forth herbs yielding seed."

My personal taste would put the larkspur among the very best on the list of hardy perennials. It is not only extremely hardy and a continuous bloomer, but its beautiful blue shades are quite unique among garden flowers. The first blooms are borne on long stems, frequently four feet high, that make it splendid for decorative purposes, if a little troublesome to keep up out of the garden dirt. These should be picked before any seed is formed, so as to encourage more flowering stems which will keep up the bloom continuously throughout the summer. The larkspur makes the prettiest of buttonhole bouquets and will last an astonishing time out of water without shriveling or losing form in any way. We have it in the neglected part of our garden, where it has not only held its own but increased in vigor year by year. I do not know how long it will go without division or how much finer it would be if given the cultivation that most of our perennials receive. It is more interesting in some respects than any we have mentioned. It certainly has a greater variety of color and form, and on account of its tall growth makes a splendid background, in this respect rivaling the more tender hollyhock.

The old-fashioned bleeding



Achillea, the pearl—a perpetual source of bouquet material.

But the flower that has taken the deepest hold of my imagination is the iris. None of your high-heeled, hobbled skirted, long-feathered kind of beauties that saunter our present-day sidewalks, but reminding us of the modest, sweet-faced maidens dressed in heavenly blue that shattered our hearts in days of yore. I think it is not too soft to say "I love them." My first iris came to me by chance. In coming home from town in early spring, just after the early tulips, I spied a cluster of blue flowers out among the grasses by the roadside fence. It must be an illusion, for there could not be any such wild flower in bloom at that chill season, but I would jump out

for weeks, a procession of beauties that seem almost breathed out to us from the spirit world. Having once enjoyed them, I would not be deprived of their company even if it required much toil and worry to keep them with us. But they are all as willing to stay by us as that little dwarf that I found out on the roadside. Nothing could be easier than breaking apart the clumps in the cool days of September and multiplying them by five each season.

When I was out in the mountains of Montana last summer I was surprised to find the gaillardia growing wild in almost as pretty shades as in our own collection grown from an expensive strain of seed. I think that bou-

heart of our grandmother's garden, one of the few things that has been left unchanged and unimproved, seems to be having just now a period of special popularity, as it well deserves. It is one of those things that, having a grace of expression all its own, does not seem to invite improvement. It goes on year after year, regardless of ownership or change of administration, and represents,

be useful in the farm garden. Those that I have mentioned are no doubt among the best, and every one of them is absolutely dependable. I do not know that it is true that the farm garden is more neglected than the city garden, but I do know that the common excuse for being without these joyous things is the lack of time to care for them, and in this paper I have tried to meet that argument.

Autumn Notes.

Currants and gooseberries are best pruned in October or November. Remove some of the oldest fruiting canes each year or the bush will soon become too dense.

Cut out all dead canes from the raspberry and blackberry plantations leaving only wood which grew this year.

Grapes should be pruned and covered before the ground freezes.

Delay pruning fruit trees until March or April.

A few daffodils, hyacinths, and tulips in flower next March will brighten up the rooms at small cost. Now is the time to plant them.

A few autumn-bearing strawberries have been worth growing this fall. Be sure productive varieties are obtained and don't buy too many expensive plants, as they may be disappointing.

With the coming of the long winter evenings more attention can be given to horticultural books and papers. They are numerous and easy to obtain through public and traveling libraries. It pays to own a few of the best on the subject in which one is most interested.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul.

Work for the Legislature

Pass a law making it criminal offense to plant Kieffer pears.

Protecting Trees

Geo. F. Potter

Young trees are sometimes girdled during the winter by field mice and rabbits. The damage is usually done before the owner realizes it, and while it is possible to bridgegraft an injured tree, this is comparatively expensive and uncertain. Washes are sometimes used to repel the rodents, but are unreliable and may do harm by creating a false sense of security. The best plan is to use adequate tree protectors.

Probably the best protector made is a piece of one-fourth inch mesh wire netting, 24 inches by 12 inches in size, which is rolled into a cylinder two feet long and approximately three inches in diameter. It is absolutely proof against attacks of mice and rabbits, and at the same time it is open, allowing free circulation of air and admitting sunshine. Thus it does not harbor either insects or disease and can be safely left on the tree from year to year. The only objection to this protector is the price of the material which may be as high as ten cents per tree if only small quantities are used. In rolls of 100 feet, sufficient to protect 100 trees, the price is considerably less. The effectiveness and permanency of this protector as compared to other types give it great value. Wire netting of coarser mesh may be substituted, but does not keep out mice.

Veneer protectors are offered for sale at moderate prices by many fruit box and tree protector companies. These are simply thin sheets of wood which are rolled into cylinders about the tree. They usually protect the trees thoroughly, although an instance was brought to my attention in which mice gnawed through the veneer wrapper is that it does not admit air and sunshine, and consequently harbors insects and disease if left on the trees during



A single stem of Marie Le Moine, one of the very latest of white peonies.

I imagine, about the last word in hardiness. To increase our patch one fall we divided a lot of roots, throwing on the dump pile some divisions that seemed to be too small and worthless for any use. Imagine our surprise next April to find a large share of them sprouting up, determined to make a cluster of plants out of the surface of the open ground. We took pity on their heroic attitude, and, placing them in a nursery row, the larger share came on and made good plants the following autumn. I do not know of any living thing except "pussly" that will endure more grief than this.

I have not mentioned more than one-tenth of the interesting and desirable perennials that would

the growing season. Tar paper may be substituted for the veneer, cut either in rectangles to roll into cylinders, or in long strips for wrapping spirally about the trunk. It must be removed very promptly in the spring as it seems to poison the bark. Building paper and newspaper are less desirable substitutes for the veneer.

In case other materials are not available a cheap and fairly satisfactory protector can be made by tying a number of straight corn-stalks about the tree. These are difficult to apply but if no wide cracks are left between the stalks they are effective in excluding the pests. Whatever wrapper is used it should be carefully fitted to the ground and if of suitable material is best inserted a couple of inches below the surface to ward off burrowing enemies. Any of the protectors can be fastened with stout binder twine or soft iron wire. The wire is easiest to use, but must be carefully removed with the protector to avoid girdling the tree.

When the snow is deep the branches of low-headed trees may be within the reach of rabbits. The application of repellent washes is sometimes advisable in this case. Lime-sulphur spray at the rate of five gallons commercial concentrate in a barrel of water is thought by some to be effective, but for safety it must be applied often. The viscera of freshly killed animals rubbed on the branches is one of the best repellents to use in this case. It must also be put on often to be effective.

Mounding earth about unprotected trees reduces danger from attacks of mice, and tramping the snow about the trunks is sometimes resorted to. This makes a hard packed cylinder from which the mice turn aside in burrowing.

Crocus, tulips and hyacinths may be planted any time before the ground freezes.

Use Wisconsin Cranberries Now and Save Money

H. L. Russell.

In these days of high cost of living, doubtless the most important action which the consumer can take is to buy his supplies on a wholesale basis, thereby securing his food products at considerably less price than is customarily charged where purchases are made in small retail lots. When, in addition to this saving, he can also secure a better quality of

tion of a much finer quality than the cranberry sauce that is prepared later in the season.

Cranberries at the present time are retailing at three quarts for a quarter. By Thanksgiving or Christmas they usually sell for a shilling a quart. If purchased in quantities sufficient to meet the needs of a family for the year they could doubtless be purchased at a considerably lower price than the present retail figure. A saving of probably thirty to fifty per cent in the price of this food prod-



Bog construction on the Chas. L. Lewis bog at Shell Lake, Wis.

product, it is worth while for him to consider the proposition.

That the two advantages of lower price and improved product can be obtained with reference to the use of the cranberry as a food is now definitely recognized. The mode of canning cranberries which Mrs. Malde here recommends prepares this delicious fruit in a manner so as to conserve its fine quality much better than obtains where the fruit is utilized in the ordinary way. The cranberry when first picked has a comparatively thin skin, which thickens upon exposure of the fruit to the air so that in the winter time the skin is much tougher and thicker. If the cranberry fruit is put up in cans in October or November it is handled in the most ideal way, and the formula here given results in the produc-

uct can thus be effected, while at the same time the quality of the fruit so treated is very much superior to the old fashioned way of preparing cranberry sauce.

The following recipe of Mrs. O. G. Malde, wife of the Superintendent of our Cranberry Branch Station has been tried out and found to be thoroughly successful.

CANNED CRANBERRIES

Mrs. O. G. Malde

Always wash cranberries. Pack dry cranberries into pint or quart jars, put on rubbers and cover, and seal tightly. Place jars in pan, kettle, or wash boiler filled with water to reach up to neck of cans. Place false bottom in the utensil used.

After water comes to boil, permit pint cans to boil a half hour

or quart cans three quarters of an hour, then take from water and remove covers, fill cans with hot syrup, and re-seal. Set aside in cool place for two weeks before using.

Syrup is made as ordinary sugar syrup, figuring on one half pint of sugar for each pint of cranberries.

For thinner preserves or more tart flavor, reduce proportion of sugar slightly.

CRANBERRY CONSERVE

Chop coarsely five pounds washed cranberries and two pounds raisins. Add juice of six oranges and five pounds of sugar. Heat and simmer slowly until thick like jam. Put in jelly glasses.

Squash and Pumpkin; Also Parsnips and Salsify.

Squash and pumpkin are now plentiful and when properly served are delicious—merely as suggestions the following ways of serving squash are given: boiled or steamed then seasoned, mashed with butter; steamed in shell until tender then seasoned and buttered and baked until slightly browned; steamed or boiled, mashed then heaped into a mound on a dish dotted with butter and browned in the oven.

Before your squash or pumpkin show signs of spoiling, boil or steam them, mash and season with salt and pack in fruit jars, cover but do not seal, and steam the jars as for sterilizing vegetables. A good plan is to break a new squash each time squash is wanted, use what is required immediately and can the balance, in a short time all the squash or pumpkin will be canned and ready for use any time. In the same way the autumn store of apples can be stewed and canned ready for pies or as apple sauce any time.

Parsnips are another autumn vegetable which can be deliciously served in many ways: boiled

and buttered, or served with cream sauce, or fried until brown after being boiled; or made into fritters and fried—are a few of the many ways.

Salsify is good boiled and served with butter, or cream sauce, or cold as a salad with or without other vegetables, or as fritters, or cream soup often called mock oyster.

The Garden and the Cook.

As a necessary accompaniment of the intelligent use of a garden is a sane idea of good cookery. Good cookery should not be the solution of culinary puzzles, or involve any gastronomic gymnastics, but is found in the serving of food so prepared, simply, and quickly that none of its palatability, nutriment or individuality is lost, without extravagance or waste. To such a cook a home garden is a mine of wealth, giving a quality to the food that no store bought supplies however costly, can equal. The best green peas can be utterly spoiled by an ignorant cook and the most luscious corn made as tough as nails by the careless housewife—to prevent such mistakes is to be one of the tasks of this department.

HOW TO COOK CRANBERRIES

The vegetables now in season present a wide field for choice and future provision. Cranberries are now plentiful and cheap and the family fond of them should immediately lay in a supply against the rising prices of the advancing season.

At the Housekeeper's Short Course last February housewives were advised by Mrs. Hewitt to buy at the beginning of the season and can the cranberries as follows: Pick the berries over carefully rejecting all imperfect ones, pack them into thoroughly sterilized jars, fill with cold water and seal immediately. If one has a driven well it is not necessary to sterilize the water, but to pump

several pailsfull until clear before filling the jars. In making cranberry jelly it is well to be cautious in measuring the sugar if a stiff jelly is wanted. One part juice to one half part sugar would be better than one to one. In any case a test with alcohol as advised by Dr. Goldthwaite would definitely determine the quantity of sugar. To test take a teaspoonful of strained juice when boiling put it in a wine glass or test tube with the same amount of grain alcohol. After cooling a few minutes a jelly will be formed in the glass and the proportion of jelly to the whole contents of the glass indicates the proportion of sugar to be used.

Cranberries can also be canned by boiling: first boil them with a little water in a kettle and then pack in jars and seal. They cannot be canned satisfactorily by being packed in the jars raw covered with water and then sterilized as the expansion of the air contained in them blows the covers off the jars and makes the juice overflow. But Mrs. Hewitt of the University School of Home Economics, describes another way as follows: Steam the cranberries in the jars for a few minutes and then fill the jars with boiling syrup and seal. She says the berries remain whole and are delicious.

The following recipe for a mock mince or cranberry pie was given in the Chicago Record Herald some time ago by Mrs. M. L. Fuller of Canton, N. Y.:

One cup bread crumbs
 One cup raisins
 One cup sugar
 One cup cranberries cut in halves
 One level saltspoon each cinnamon, cloves, allspice and nutmeg
 One cup hot water
 One half cup vinegar
 Butter the size of a large walnut.

Turn into a pie tin lined with flaky paste place the top crust and bake in a brisk oven.

Is Your Store-room Well-filled?

If you are not satisfied with your store of jellies and jams perhaps the following recipes chosen from various sources may help you:

Carrott Jam

A recipe given by Mrs. Hewitt, instructor in the School of Home Economics, University of Wisconsin, at the Short Course House-keepers 1914.

Wash and scrape carrotts, dice. To one part by weight of carrots, add $\frac{1}{2}$ part of water. Boil until carrots are soft and put through vegetable press or meat grinder.

Wash lemons and slice fine. To one part by weight of lemon, add one part water. Boil gently from 30 to 45 minutes. Allow this to cool.

Combine carrots two parts and lemons one part and to one part by weight add one part sugar. Boil until jelly test is obtained.

There are many recipes for carrot jam varying from equal weights of carrot and lemon to one cup of diced carrot, one tablespoon of lemon juice, etc.

Mrs. Rorer in her book "Vegetable Cookery" uses

4 lbs. carrots, 2 oranges

2 lbs sugar, 1 oz. green ginger or 1 tablespoon of ground ginger

1 lemon, 2 bay leaves.

The carrots after scraping are soaked in cold water for half an hour, then boiled, drained, mashed through a colander. The sugar with two cups of water is boiled and skimmed separately. The rinds of lemon and oranges are grated and the juice strained. All the ingredients are then put together and simmered to a marmalade.

Pumpkin Ginger

A recipe given by Mrs. Hewitt of the School of Home Economics, University of Wisconsin, House-keepers' Short Course, 1914.

8 lbs, pumpkin, 8 oz. gingerroot
8 lbs. sugar, 8 lemons.

Remove rind from pumpkin.

Cut pumpkin into $\frac{1}{2}$ inch cubes. Wash lemons and slice fine. Combine pumpkin, lemon, sugar, and ginger, in small pieces, let stand 12 hours. Boil until pumpkin is clear, and put in jars.

Apple Jelly

Recipe taken from article by Alice S. Mercure, on **Winter Preserves**, in The Sunday Record-Herald, Chicago, Jan. 11, 1914.

Apple jelly may be made at any time during the winter, and if spiced, it will be found a great improvement over the ordinary variety.

To the apples add vinegar in the proportion of one cupful to each peck of apples, and a bag containing equal parts of whole cloves, cinnamon sticks, and whole allspice. Use one quarter pound of spices to one peck of apples. Proceed as in making apple jelly, boiling the spice bag a second time with the clear juice. The jelly will be clear, of good color and delicious flavor.

Celery Relish

From Chicago Record Herald 1914.

Two cups chopped cabbage,

Two cups diced celery

One half cup brown sugar

One quarter cup finely minced onion

One half tablespoon salt

Four minced green peppers

One quarter tablespoon of pepper

One quarter cup grated horse-raddish

Mix well in vinegar and keep in a cool place three days before using.

The Cost of High Living Explained.

Every magazine and newspaper having a home economics department is now giving ways and means for cutting the cost of living, in too many cases high living. By high living I do not mean riotous living or extravagant dissi-

pation, but the careless luxury measured only by what equally thoughtless pleasure loving friends share. Autos, Victrolas, the newest styles of clothes candy and expensive food *ad libitum*, theatres, movies, and innumerable things for which each and every one strains the pocket for "just that one thing more". Such expansive extravagance cannot last, and brought to a halt by the business stringency induced by the war in Europe, every family not dependent on a federal or state salary is forced to consider a reduction of income. It may not be agreeable, but one cannot help feeling that the restrictions may prove wholesome and teach a needed appreciation of the economies found in unappreciated resources—among these nothing will prove quite so valuable to a housewife as the intelligent use of the products of her vegetable garden, whether merely in her back yard or something larger.

Notes on Insects

N. F. HOWARD

Currant Aphis

Spray currants with tobacco solution or kerosene emulsion for aphis when young shoots appear in the spring. Spray with an arsenical as soon as the currant worm appears.

Currant Borer

For currant borer, prune back infested canes below the burrow made by the caterpillars and burn. It is not always possible to distinguish infested canes in the fall of the year, for not completely killed. A scanty growth of foliage in the spring is an indication of infestation, and such canes should be cut low and burned.

Grape Root Worm

So far as is known the grape root worm does not occur in Wisconsin. Salt is of little or no value in controlling this pest. Cul-

tivation in the early summer to expose the larvae, and a strong arsenical spray when the beetles are above ground have been found very successful.

APPLE MAGGOT OR RAILROAD WORM

The apple maggot has appeared in several districts this season. While it has not been of much importance generally, in some localities it does considerable damage. "The prompt gathering and destruction of windfalls before they are deserted by the maggots, serves to keep the insects greatly reduced." Frequent tillage in late spring and early summer is also recommended.

WHAT IS IT?

Know the pest which is doing the damage to your crops. You cannot combat it successfully unless you know its method of attack. If you are in doubt, send in a specimen of the intruder and some of its work and we shall help you name it.

FRIENDS

The relation to birds to the control of insect pests cannot be over emphasized. The children should be taught to protect the birds and build houses for them. Birds are second only to predacious and parasitic insects as destroyers of insects.

COCKROACHES

Borax mixed with powdered sugar or starch and sprinkled about the cracks will poison the cockroaches. A better method is to mix powdered sugar or starch with plaster of Paris, dry, and sprinkle about. Have water within reach and the plaster of Paris mixed with the water will solidify in the stomach of the insect and cause its death.

ANTS

Now is the best time to destroy the anthills along the fences. Ants care for and disseminate plant lice.

TOO LATE

It is too late to plow for the white grub. By this time the larva has gone down beyond reach to hibernate. Proper precautions and planning or rotations for next year will save crops from much injury. Farmers' Bulletin number 543 gives much valuable information about white grubs.

N. F. H.

State Fair Premiums

The following premiums were awarded on grapes at the State Fair. Copy furnished by Sec. Mackenzie.

Grapes

Display, not more than 15 varieties: 1st Balgheim Bros., Twin Bluffs; 2nd J. S. Palmer, Baraboo; 3rd A. K. Bassett, Baraboo; 4th H. R. Platt, Baraboo. Premiums: \$15.00, \$12.00, \$10.00, \$8.00.

Display, 10 varieties adapted to Wisconsin: 1st Balgheim Bros.; 2nd Bassett; 3rd Palmer; 4th Platt. Premiums: \$8.00; \$6.00; \$4.00; \$2.00.

Display of 5 varieties adapted to Wisconsin: 1st Kickapoo Development Co., Gays Mills; 2nd Bassett; 3rd Balgheim Bros.; 4th Palmer, 5th Platt. Premiums: \$5.00; \$4.00; \$3.00; \$2.00; \$1.00.

Canes

Brighton: 1st Kickapoo Development Co.; 2nd Bassett; 3rd Balgheim Bros.; 4th Platt; 5th Palmer. Premiums: \$3.00; \$2.50; \$2.00; \$1.50; \$1.00.

Concord: 1st Bassett; 2nd Platt; 3rd Balgheim Bros.

Delaware: 1st Bassett; 2nd Kickapoo Development Co.; 3rd Balgheim Bros.; 4th Platt.

Moore's Diamond: 1st, Palmer; 2nd Platt; 3rd Balgheim Bros.; 4th Bassett.

Worden: 1st Bassett; 2nd Balgheim Bros.; 3rd Palmer; 4th Platt.

Single Plate

Agawam: 1st A. D. Brown, Baraboo; 2nd Balgheim Bros.; 3rd

Bassett; 4th Platt. Premiums: \$1.50, \$1.00, .75; .50.

Brighton: 1st Kickapoo Development Co.; 2nd Bassett; 3rd Balgheim Bros.; 4th A. D. Brown.

Concord: 1st Kickapoo Development Co.; 2nd Balgheim Bros.; 3rd A. D. Brown; 4th Palmer.

Campbell Early: 1st D. E. Bingham, Sturgeon Bay; 2nd A. W. Lawrence, Sturgeon Bay; 3rd Balgheim Bros.; 4th W. I. Lawrence, Sturgeon Bay.

Delaware: 1st Kickapoo Development Co., Gays Mills; 2nd Balgheim Bros.; 3rd Bassett; 4th Platt.

Green Mountain: 1st Palmer; 2nd Platt.

Lindley: 1st Platt; 2nd Balgheim Bros.; 3rd A. K. Bassett.

Martha: 1st Balgheim Bros.

McPike: 1st Balgheim Bros.

Moore's Early: 1st Balgheim Bros.; 2nd Platt; 3rd J. A. White, Brookfield, Wis.; 4th Bassett.

Niagara: 1st Bassett; 2nd Kickapoo Development Co.; 3rd Platt; 4th Balgheim Bros.

Pocklington: 1st A. D. Brown.

Peaches \$10.00 a Ton at North Yakima

A Wisconsin man who is now working in the famous Yakima valley has written a long and interesting letter to his home paper. Among other things he writes:

"The fruit crop is something enormous and the prices are very low. The peaches and pears have brought the grower very little for their labor and investment and thousands of bushels have gone to waste or fed to the hogs. We have been working where I could get all the peaches I wanted to eat and it seems a shame that so much fine fruit should go to waste.

Most of the farmers in the valley where we have been working sold their peaches in bulk for \$10 per ton, out of this had to pay for picking and hauling to stations."

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 24 E. Mifflin St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second class matter May 31, 1912, at the postoffice at Madison, Wisconsin, under the Act of March 3, 1879.

Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of Wisconsin Horticulture. Remit fifty cents to Frederic Cranefield, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and pays for two years. Personal checks accepted.

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Annual Membership.....\$.50
 Life Membership.....5.00
 Remit to Secretary W. S. H. S.,
 Madison, Wis.

Attend the Convention

There is no record of any person who has attended the Annual Convention who regretted it. It is well worth while even if you are only slightly interested in horticultural matters. There will be something for every one and if you don't find it on the program ask for it. There will be men and women there who can answer intelligently and fully any question pertaining to horticulture that you may ask.

There will be several new features this year that will put ginger into the proceedings. Kern is coming with the Bayfield Quartette which alone is said to be

worth the price of admission. Please remember everything is absolutely free.

Spray Pump Exhibit

The entire ground floor of the new Gay Chapman building on Carroll St. has been rented for convention week and manufacturers of all the best spray pumps, insecticides and orchard tools have been invited to send exhibits. Judging from our success two years ago when a similar exhibit was held this should be one of the best features of convention week. If you want to buy a pump or want to know about spray material or orchard plows come to Madison Dec. 15 to 17th and look around.

Convention Notice

The Annual Convention will be held one month earlier than usual this year, Dec. 15 to 17th.

There seemed to be several good reasons in favor of this plan and none against it. By meeting in December we can have the use of the Assembly chamber and corridors; the fruit display should be larger and better and the convention will be "off the boards" before institute work begins. So, then we will all rally in Madison December 15th, 16th and 17th.

Fruit at the Sauk Co. Fair

The fruit growers of Sauk Co. stage an exhibit of apples and grapes that is just a little better in quality than that of any other county in southern Wisconsin. In quantity it runs close to the state fair exhibit. The same is true of flowers. These exhibits are housed in an antiquated tumble-down old shack in which no self-respecting swine-breeder would house his herd. On

rainy days the roof leaks, the sides leak and the floor leaks. It is said to be 40 years old. It looks 400. Fruit is crowded on shelves and securely fenced in with poultry netting. Flowers are packed so closely that only the front row can be seen. Why is this thus? Sauk Co.'s pride is, or should be, its horticultural products. Sauk Co. can surely afford a suitable building for fruit and flowers; a building, long and narrow with flat-top tables throughout, wide aisles and no chicken wire. It will be worth the price whatever it costs. The exhibitors are entitled to it.

Help Wanted

The following gentle hints were published in the February 1914 number and are quite as true now as then:

BOOST A LITTLE

Here are three ways:

(1) Send to the Secretary the names and addresses of 4 or 5 people who OUGHT to be members of our Society. This will cost one cent for a postal card and five minutes time.

(2) Ask for a few sample copies of W. H. and hand these out to your neighbors. Inside of each will be found an 8 page circular telling many things about our work, some of them true, a membership blank and a self addressed envelope. Just hand these to your neighbor or send them to the school teacher.

(3) Get one new member.

Any or all of these will cost but little and prove immensely helpful to our cause.

This magazine is our great drawing card and 99 per cent of those who see it for the first time want it.

We have no advertising department, no general publicity bureau and no means of getting sample copies to people who will be interested **except through members.**

Will you help in one of these three ways?

CRANBERRY NOTES

MARKET CONDITIONS

The Wisconsin crop did not prove to be as large as expected being now estimated at 25,000 bbls.

New Jerseys crop is also less than estimated, but the large crop on Cape Cod brings it up as large as the whole country ever produced.

In view of the heavy losses sustained by growers of other fruits this season, notably cantaloupes, and the prospective low or unprofitable prices to apple growers, the cranberry men can congratulate themselves at the prospect of getting a fairly good price. Great credit is due to the American Cranberry Exchange for the energetic manner with which they have opened up new markets and enlarged the outlet for cranberries in the few years it has been organized. Without this, undoubtedly much of this year's crop would have been a dead loss. The lack of confidence which prevails in the east has affected the cranberry growers there and instead of holding part of the crops which they are much better able to do than the western growers they are anxious to sell at almost any price, thus putting a very heavy strain on the market. The result will probably be that the low prices have caused a heavy consumption. This was rather unexpected as the warm weather is not considered favorable to the consumption of cranberries. It is possible that those who hold late may get very high prices as Mr. Chaney, the manager of the Exchange predicted that the supply would be exhausted before the season was over.

The Pure Food law hits the cranberry men quite hard as each barrel is supposed to be weighed and contain 100 lbs. net. As some berries are lighter than others it

might not be possible to get 100 lbs. into the standard size barrel.

It is hoped that the barrel law now before congress will supersede the Pure Food law.

Probably the busiest man in Wisconsin is Mr. O. G. Walde, superintendent of the Experiment station at Cranmoor, Wis. Mr. Walde is expert advisor for several cranberry companies and also inspector for the Sales Co, for the Cranmoor district. As Mr. Walde inspects every carload also the sorting of berries and the loading stations are several miles apart, he is certainly kept on the go almost night and day. But Mr. Walde is certainly a bundle of energy and seems to thrive on it and gives general satisfaction.

Mrs. C. M. Secker was appointed inspector for the Mather district and no doubt is kept on the jump most of the time.

Wood Ashes Furnish Potash

Concerning the prospective shortage of potash owing to the European war the Dept. of Agriculture at Washington calls attention to the value of wood ashes as a potash supply.

"Ashes from hardwoods, (deciduous trees), are richer in both phosphorus and potash than those from pines and other softwoods (conifers). Ashes from oak, elm, maple, and hickory have more potash than those from pine. The ashes of twigs (faggots for example) are worth more for agricultural purposes than the ashes of heart-wood taken from the middle of an old tree. In general, the smaller and younger the wood burned, the better ashes. The ashes of coal do not contain enough potash to make them valuable in this connection."

"Ordinary house ashes contain on the average about 8 or 9 per cent of potash and 2 per cent of phosphoric acid. Investigators have considered that there is enough potash and phosphoric acid in a bushel of ashes to make

it worth 20 or 25 cents. Besides that, some 10 or 15 cents additional might be allowed for the "alkali power" of the ashes. This power is that which enables ashes to rot weeds and to ferment peat. Of course prices vary with local conditions."

Keep Summer in the Home

The leaves are falling, the evenings are getting long, reminding us that summer has passed away and winter will soon be with us. It is a condition of things that none relish and we frequently hear the remark, oh I dread the winter. I wish I could go South during cold weather. We can not all indulge in that luxury, but we may make our homes bright with flowers and plants, and by so doing soften the dreary aspect. There is nothing that adds so much to the cheerful appearance of the home as an abundance of flowers.

Chrysanthemums blossom early in winter and one can choose from an almost endless variety of beautiful shades and they are comparatively little trouble. Ferns lend a graceful feathery appearance to the rooms and should have a place in every home. Geraniums are hardy and give large returns for a little care. Nearly all the bulbs can be forced and will bloom in the latter part of winter, and by potting singly and holding back one can have them continuously for a number of weeks. The cyclamen is a beautiful plant which blooms freely and there is a variety of colors to choose from. These are only a few of the many beautiful and most hardy plants that any one can care for, and be well repaid for their work with the fragrance and beauty.

Mrs. L. H. Palmer.

The dahlia plants were still blooming nicely the early part of October. This is a splendid plant for fall use.

CONVENTION PROGRAM

Madison, Tues. Wed. and Thurs. Dec. 15, 16 & 17, 1914.

Tuesday Afternoon.

2:00 o'clock

Opening Address
Introduction of delegates from
Minnesota, Illinois, Iowa and
Northern Illinois Societies.

PROGRAM.

Music
Gladiolus Culture: Holland and
other Bulbs:
The Farm Flower Garden:
Six Flowering Shrubs and a Dozen
Perennials for Every Home.

Tuesday Evening.

Music.
Program by Students of Univer-
sity Dept. of Horticulture.
(This is the annual students
speaking contest. The program
will be published in full in Dec.
number.)

Wednesday Forenoon.

President's Address
Reports of Secretary; Chairman
of Frial Orchard Committee;
delegates, etc.
Election of Officers and Executive
Committee.
The Box vs. the barrel for market-
ing apples: A debate led by F.
Kern for the box and J. S.
Palmer for the barrel. Discus-
sion by members:
Two or more papers by members
of the Wisconsin Cranberry
Growers Ass'n.

Wednesday Afternoon.

(Session at Horticultural Build-
ing, University)
Commercial Fruit Growing in
Wisconsin, Past, Present and
Future:—Bayfield, Door Co.,
The Kickapoo, Baraboo, Rich-

land Co. and the Lake Michi-
gan Shore: These are **not** to be
boosters stories nor boosters
yarns but plain matter-of-fact
statements of what has been
done in the past, the present
status of the business, future
prospects, adaptation of varie-
ties, progress in selling, etc. One
of the best informed persons
from each district has been se-
lected to present this subject.

Wednesday Evening.

Entertainment by Members of the
Madison Horticultural Society,
etc.
A fine program is being prepared.
The ladies of the M. H. S. are
preparing to entertain visiting
ladies Wednesday afternoon.
"And it will be something dif-
ferent this year."

Thursday Forenoon.

A paper on Vegetable Growing;
Children's Gardens; City Gar-
dens: "Foolish Things."

Thursday Afternoon.

All University Session:
Professors: L. R. Jones, J. G.
Sanders, J. G. Moore and A. R.
Whitson:

A short talk by each followed by
all the questions we can think
of.

(Note) This is merely an out-
line of the program which will no
doubt be changed in many partic-
ulars. None of the good things
will be left out and it is almost
certain many others may be
added. It may be necessary to
add a half day making three full
days. There is still time for good
suggestions.

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(Member W. S. H. S.)

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	1st Pre.	2d Pre.	3d Pre.	4th Pre.
1. Best collection of apples, not less than 15 varieties	\$10 00	\$6 00	\$4 00	\$2 00
2. Best 5 plates (5 varieties) commercial apples for Wisconsin	5 00	3 00	2 00	1 00
3. Best Plate Ben Davis	1 00	75	50	25
4. Best Plate Dudley	1 00	75	50	25
5. Best Plate Fameuse	1 00	75	50	25
6. Best Plate Gano	1 00	75	50	25
7. Best Plate Gem	1 00	75	50	25
8. Best Plate Gideon	1 00	75	50	25
9. Best Plate Golden Russett	1 00	75	50	25
10. Best Plate Grimes Golden	1 00	75	50	25
11. Best Plate Jonathan	1 00	75	50	25
12. Best Plate King	1 00	75	50	25
13. Best Plate Longfield	1 00	75	50	25
14. Best Plate Malinda	1 00	75	50	25
15. Best Plate McIntosh	1 00	75	50	25
16. Best Plate McMahan	1 00	75	50	25
17. Best Plate Newell	1 00	75	50	25
18. Best Plate Northern Spy	1 00	75	50	25
19. Best Plate Northwestern Greening	1 00	75	50	25
20. Best Plate Patten	1 00	75	50	25
21. Best Plate Pewaukee	1 00	75	50	25
22. Best Plate Plumb Cider	1 00	75	50	25
23. Best Plate Salome	1 00	75	50	25
24. Best Plate Seek-no-Further	1 00	75	50	25
25. Best Plate Scott Winter	1 00	75	50	25
26. Best Plate Tolman	1 00	75	50	25
27. Best Plate Twenty Ounce	1 00	75	50	25
28. Best Plate Utter	1 00	75	50	25
29. Best Plate Wagener	1 00	75	50	25
30. Best Plate Wealthy	1 00	75	50	25
31. Best Plate Windsor	1 00	75	50	25
32. Best Plate Wolf River	1 00	75	50	25
33. Best Plate York Imperial				
34. Best Plate Boiken				
35. Best peck of each of the following varieties: Dudley, Fameuse, Gano, Gem, Golden Russet, Grimes Golden Jonathan, King, McIntosh, McMahan, N. W. Greening, Tolman, Wealthy, Windsor and Wolf River	\$2 00	\$1 00	\$0 75	
36. Best Exhibit Pears	1 00	75	50	
37. Best Exhibit Crabs	1 00	75	50	
38. Best Seedling Apple	2 00	1 00	50	

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We are the largest growers of apple trees in the state, we are confident that we can furnish trees that will please you, and our prices are right.

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

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As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16 quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Co.
Dept. D, Cumberland, Wis.

Make Your Own Barrels

At a cost of about 29c.

"BARREL MAKING SIMPLIFIED"
Tells How - - - Price \$1.
Sent free for 6 names of Apple or Cranberry growers.
Send 10c for my little booklet "THE MODERN BARREL"
IT'S JUST FULL OF "BARREL" information. 12 p. booklet free

LEON MILLER
2012 N. Germantown Ave. Philadelphia, Pa.

VEGETABLES.

	1st Pre.	2d Pre.	3d Pre.
Best collection, not less than 10 entries	\$5 00	\$3 00	\$2 00
1. Best 6 Blood Turnip Beets	1 00	75	50
2. Best 3 Round Turnips	1 00	75	50
3. Best 3 Rutabagas	1 00	75	50
4. Best 6 Chantenay Carrots	1 00	75	50
5. Best 6 Shorn Horn Carrots	1 00	75	50
6. Best 6 Salsify	1 00	75	50
7. Best 3 Winter Cabbage	1 00	75	50
8. Best 3 Red Cabbage	1 00	75	50
9. Best 6 Ears Pop Corn	1 00	75	50
10. Best 6 Red Onions	1 00	75	50
11. Best 6 Yellow Danvers Onions	1 00	75	50
12. Best 6 White Onions	1 00	75	50
13. Best 6 Gibraltar Onions	1 00	75	50
14. Best 6 Winter Radishes	1 00	75	50
15. Best 6 Parsnips	1 00	75	50
16. Best 6 Peppers	1 00	75	50

RULES OF ENTRY

1. All entries must be filed with the secretary before 5 P. M., Tuesday, Dec. 15.
 2. Fruit must be arranged ready for judges by 9 A. M., Wednesday, Dec. 16.
 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.
- F. Cranfield, Secretary W. S. H. S., Madison, Wisconsin.

STUDENT'S 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.

**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.

AGENTS WANTED

THE JEWELL NURSERY CO.
LAKE CITY, MINN.
1500 Acres Estab. 1868

**The Hawks
Nursery
Company**

are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

WAUWATOSA, WISCONSIN

A Hint to Jefferson County

The Bureau of Soils, U. S. Dept. of Agriculture has completed a soil survey of Jefferson Co. The survey was made for the purpose of classifying the different types of soil and determining to what crops they are best adapted. Two paragraphs of the report should prove of interest to members who live in the county: "The truck industry has not been developed to any extent. Every farm has a garden where all sorts of vegetables are grown for home use but the market garden has not been developed. Fruit growing is yet to be developed on a commercial scale. The truck industry could be extended with profit, especially on the sandy soils. The orchards should be given attention and every farm should have enough of the different kinds of fruit to supply the home. The drainage of low-lying land in the county, including the peat marshes, would add greatly to the area of productive soils. Many of these tracts could be readily drained at a comparatively small cost and when properly managed would prove very profitable."

Picking Pickers

A member writes as follows about berry and cherry pickers: "You ask for subjects of interest for the Convention. I believe 'Berry Pickers, How to Get Them and How to Hold Them' would be a valuable topic. I know of thousands of cherry trees in Door Co. that were only partly picked last year because of no pickers. I believe Missouri could give us very valuable information on this subject.

Over half the state of Mo. a berry pickers check is recognized as cash."

Three things to let alone,—catalpas for fence posts, nut growing and drug plants.

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

By extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

Duchess, Dudley, Wealthy, McIntosh, Snow and Northwestern Greening

Try a few of the new sorts if you wish. We have them. Our **Fruit Trees, Small Fruit Plants, Vines and Ornamental Stocks** were never better. Our prices are as low as any where *quality of stock* is considered.

Our Landscape Department will draw your plans and do your planting. Write today for our new catalog.

THE COE, CONVERSE & EDWARDS CO.
FORT ATKINSON, WIS.

"Chase Quality Stock"

means stock grown by experts trained to Chase methods, working on our 590 acres of selected land, tile drained and in the highest state of productiveness; stock sorted, packed and loaded under one roof in our mammoth concrete packing cellar (covering more than two and one-half acres), by men skilled in their work; stock packed in paper lined boxes with Sphagnum Moss and wood filter to insure perfect protection; stock delivered by men thoroughly instructed to secure careful and prompt handling.

Chase customers get "CHASE QUALITY STOCK."

Buy our Western New York grown piece-root grafted apples for Spring 1915 planting.

CHASE BROTHERS COMPANY
The Rochester Nurseries, Rochester, N. Y.

Tilling the Hitchings Orchard

One of the latest bulletins bearing on the question of orchard tillage is a report by the New York Expt. Sta. of a test carried on at the Hitchings farm near Syracuse, New York. This work is more interesting because it was at this farm and by this fruitgrower that the sod mulch system was originated. It is often called the Hitchings system.

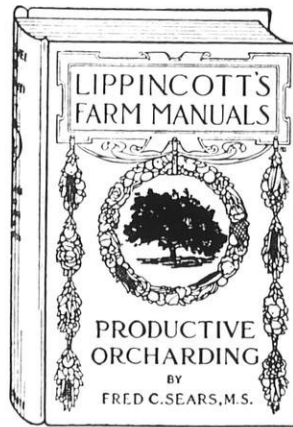
The farm lies in a valley, the sides of which are long slopes, rising in the course of half a mile to a height 400 or 500 feet. Three plots were laid out, one in the bottom of the valley in an orchard set just before the beginning of the ten year experiment, and two upon the lower part of the slopes, in orchards which were bearing at the beginning of the work. The soil in the lower plot is a dark brown clay loam, containing a little sand, and the subsoil is a silt to clay loam. In the plots on the hillside the soil is somewhat the same, although both surface and subsoil contain more stone and gravel.

Mr. Hitchings himself cared for the orchards and took the records. The sod plots were seeded down immediately after the trees were set, remaining in sod during the whole ten years without being broken up. The grass was cut once or twice a season and left as a mulch. The cultivated plots were tilled in one direction only, and that not within six feet of the row. This left the tree standing in a strip of sod twelve feet in width. Mr. Hitchings was convinced that cross cultivation would injure the trees, and it is possible that on the slopes it would have caused some washing. The varieties used were Wagener, Rhode Island Greening and Sutton in the valley, and Alexander, Wealthy, Fameuse, and Northern Spy upon the slopes.

Unfortunately the trees in the valley, newly set at first, did not bear fruit during the ten years of the trial. Probably because of

The Growing Demand for Fruit Means
Profits in

ORCHARDS



Productive Orcharding

Modern Methods of Marketing and Growing Fruit

By FRED C. SEARS

Professor of Pomology, Massachusetts Agricultural College.

With 157 illustrations and 316 pages, volume 6" x 8 1/2", handsome and durable cloth binding.

An authority on farming topics said that this book is without doubt the best on the subject of orcharding on the market to-day. Every owner of an orchard, whether a small family one or the largest commercial orchard, needs this work and will find it valuable. The author has devoted years to fruit growing on a large scale, and in this book has carefully sifted out and discarded orchard methods which will not work and included only those of known and tried value. It is practical, complete, up-to-date, and authoritative, covering every phase—from the buying of land, selection of fruit, to grading, packing, marketing, and advertising of fruits. It is indispensable to any student, farmer or fruit-grower.

Order a copy NOW. Price, \$1.50 net.

F. Cranefield, Sec. W. S. H. S. Madison, Wis.

The Kickapoo Valley

Wisconsin's Favored Fruit District

Orchards planted and developed.
Choice orchard tracts for sale at
farm land prices.

The Kickapoo Development Co.

Madison or Gays Mills, Wis.

the unfavorable situation at the bottom of the slopes, they suffered considerably from winter-killing and at the last season when there was an abundance of blossom the crop was lost through frost. Judging by the growth of the trees, however, the tilled plot was doing much better than the sod plot. On the hillside results were different. In growth the trees were nearly alike, but in yield of fruit it was found that over the ten year period the production per tree averaged a little higher in the sod plots than in the tilled plots.

Accounts show that the cost of maintaining the sod mulch was about 60c to \$1.00 per acre, while the cultivation cost from \$11.00 per acre in the level valley to \$24.00 on the steeper slope.

It is believed that peculiar moisture conditions, resulting from the situation of the farm are responsible for this notable success of the sod mulch system. At the lower end of a great slope such as that upon which these orchards were located, there is usually seepage supplying moisture even in dry parts of the season. This was true in the orchards on the slope, as was indicated by the fact that there were springs flowing there a part of the year. The robbery of necessary water from the trees by the grass is thought to be one of the most important disadvantages of sodded orchards, and in this case little or no harm could be caused in this way. In the valley floor where more usual conditions were found the advantage was with the tilled trees.

The experiment established the fact, however, that under certain conditions sod is more profitable in an orchard than the tillage possible under those conditions. Where there is a deep soil allowing the roots to grow below the sod, with plenty of moisture for both trees and sod, it may be profitable not to cultivate, especially if stones and slope render cultivation difficult and expensive.

G. F. P.

Wants A Change.

"Down at the State fair I received a copy of Wis. Horticulture, just the paper I have been wishing for, so I send herewith a \$1.00 bill as membership fee for two years, not because I am a Horticulturist for I am not, but I like to learn something besides milking cows."

A. M.

A Good Book

Readers who want an up-to-date book on orcharding will make no mistake in buying Prof. Sears Productive Orcharding.

The statements set forth in the advertisement on p. 50 are true in every particular.

The publishers have granted us a liberal discount on sales and whatever profit accrues will be devoted to making Wisconsin Horticulture a better paper. Therefore an order is a boost. Send money order to F. Crane-field, Secretary, Madison, Wis.

Has the garden been a success this season? If not, why not? Begin now to plan a better one for next spring.

McKay Nursery Company

PARDEEVILLE, WIS.

Offer a Complete line of

HARDY NURSERY STOCK

FOR SPRING 1915

Have 60,000 No. 1 Apple Trees including such varieties as

**Wealthy, McMahon, Snow
Dudley, McIntosh**

Write today. We want to send you catalogue and quote on your list of wants.

**NURSERIES AT
WATERLOO, WISCONSIN**

ANNUAL CONVENTION STATE HORTICULTURAL SOCIETY MADISON

DEC. 15th, 16th and 17th, 1914

Papers and Discussions Covering Every Branch
of Horticulture

A Horticultural Treat

Come and get information at first hand. Come and get acquainted
with the men and women who are DOING THINGS.

Every session open to the Public.

Orchard and Garden Notes.

Were any tulips planted about the place? It is not too late unless the ground is frozen solid.

Remove and burn all diseased or dead oak or other trees now. This is one way to cut down insect ravages.

Cabbage, if stored in the cellar, should be looked over frequently.

Now is a good time to make up a list of trees and shrubs to order for planting next season.

The snapdragon has been an especially good garden flower this season. It may be had in a variety of colors.

Clematis paniculata is one of the very pretty fall-flowering vines. Its white blossoms are much appreciated late in the season.

Save a good supply of leaves in some out-of-the-way place and let them decay. Leaf mold is of much value when potting plants, and in flower beds.

Canna, gladiolus, dahlia, and other flowering bulbs must be looked after occasionally during the winter. They must not be allowed to start growing or to dry and shrivel.

Clean straw is much better for covering strawberries and perennials than strawy manure, since it is not so likely to smother the plants when snow settles on it.

Spring is the best time to set out all plants except iris, peonies, and rhubarb. If others have been set out this fall, see that they are well mulched with strawy manure.

Cut off and burn the foliage of the asparagus as soon as it has been killed by frost. This will destroy many insects and plant diseases.

The National Cash Register company, of Dayton, Ohio, found it cheaper to furnish the boys of the neighborhood with land and interest them in gardens than to replace the glass of broken fac-

tory windows and repair other damage. Perhaps some of our so-called bad boys could have their energies directed along good lines, to the advantage of both the community and themselves. Gardens and wood-working machines are worth while in any community.

The common old-fashioned zinnia has been one of the best flowering annual plants this season. It comes into flower early and will remain in bloom until killed by frost.

Have plans been made for better plantings around the home

next spring? Now is the time to study these things and decide what plants to use.

The common, old-fashioned peunia is very attractive and can be used to advantage almost anywhere in the garden, in shrubberies, and in beds.

There are few prettier berried plants for the home than some of the common garden peppers. Most of these are easily lifted from the ground late in August and, put in pots or boxes, make good Christmas plants.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul, Minn.

SPRAY

YOU ARE GOING TO SPRAY THIS SPRING

NO matter how small or extensive your operations there is a proven MYERS OUTFIT—Bucket, Barrel or Power, that will just fit your requirements and do the work rapidly and effectively.

Don't take a chance on an outfit that you are not familiar with. Cut out failures by spraying MYERS WAY. It pays big returns in better crops and high market prices.

Write today for Catalog showing all styles

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APPLES
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SHRUBBERY
WEEDS
ETC.



MYERS WAY

WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, December, 1914

Number 4

Christmas Candies.

The following excellent candy making directions are by Grace Viall Gray and were printed in the Chicago Record Herald Dec. 21, 1913.

Next month several recipes for bonbons, etc., will be given all employing the fundant here described.

"This is the time of the year when candies are eaten with greater relish than at any other time, and every housekeeper ought to take pride in preparing attractive and wholesome confectionery for her family. Do not buy the cheap Christmas candies displayed in the grocery stores in big buckets. Your children can eat a reasonable amount of home-made candy without any bad results, whereas a very small amount of bought Christmas candy will make them sick.

One of the easiest and most satisfactory soft candies made, if directions are carefully followed, is the cooked fondant. Quantities of fondant can be made a week or two before Christmas."

DIRECTIONS FOR MAKING FONDANT.

"Fondant is made of sugar and water boiled together with a small quantity of acid. The acid usually used is cream of tartar. Several

times when about to make fondant I discovered I had no cream of tartar, so used vinegar to good advantage, also lemon juice. I used less of these two than of cream of tartar. The cream of tartar is more

supplies together tell the grocery man you absolutely must have cane sugar. The beet sugar granulates more easily than the cane, and I have found that the cane sugar always gives better results. If you



A King apple tree 74 years old and good for at least 74 years more. Near Hales Corners, Wis. (See p. 59)

desirable, as it is milder and leaves absolutely no flavor in the candy. The acid is used to prevent the sugar from granulating. The sugar, water and cream of tartar are boiled together until a few drops dropped into cold water make a soft ball. Always use coarse granulated sugar. When getting your candy

follow all directions carefully and still you have platter after platter of granulated fondant, you can easily conclude you have been using beet sugar. Put the cream of tartar in dry with the sugar. If you should forget it at first, put it in afterward; but it must then be made quite thin with water. Al-

ways use plenty of water in making fondant. The smaller the quantity made the more water is needed and the more acid. If a cover is used on the kettle no granulation will form around the edge."

White Fondant.

"Five cupfuls sugar, one and one-half cupfuls hot water, one-quarter teaspoonful cream of tartar.

Put ingredients into a smooth granite saucepan. Stir, place on range, continue stirring until the sugar is dissolved, heating gradually to the boiling point. Wash the sides of the kettle with a cloth wet in cold water, or wrap cloth around a wooden spoon and use this to wipe away the sugar that has splattered and collected on the sides of the saucepan. Cover saucepan for five minutes, then remove cover and cook until when tried in cold water a soft ball may be formed which will keep its shape. Do not stir or jar the dish while cooking. Pour out carefully on a large platter which has been slightly buttered. Do not use too much butter, for if the fondant is to stand for several weeks the butter will become rancid. Use a piece of tissue paper in buttering platter, for in that way you will not get too much. If you should be fortunate enough to have a marble slab, use that instead of the platter. This is slightly buttered, too. Let fondant stand until cool, or until pressing it with a finger leaves a dent on the surface and yet it has formed no crust. If stirred while too warm it will grain. If by chance a sugary crust forms, every particle of it must be taken off or else the boiling must be done again, for you would have sugary fondant. When cool, beat with a wooden spoon until white and creamy, then take up into the hands and work quickly until it is smooth and glossy. Place in a covered air-tight preserve jar to prevent a crust from forming and leave for a day or a week and then make into bonbons.

If the results are not right and the mass becomes grained, the sugar must not be warmed, but can again be put in the saucepan with more water and boiled again. In stirring the fondant do not always try to stir in scrapings. These can be worked by themselves afterward.

THINGS TO REMEMBER.

If all these directions are accurately followed you will never have a failure or be compelled to reboil the fondant.

Remember to:

1. Stop stirring when sugar begins to boil.
2. Wipe off particles of sugar from sides of kettle.
3. Do not stir or jar the dish while cooking.
4. Do not move the platter after fondant has once been poured into it.
5. Be sure the fondant is cool before you start stirring. It is better to have it a little too cool than to hot.
6. Always make the fondant on a clear day, as a damp, rainy day has an unfavorable effect on the boiling of sugar. Make all your candies on clear days.

Winter Protection of Hardy Perennials.

To carry hardy perennials over the winter successfully, the first requisite of nearly all kinds is thorough drainage, both surface and underground. Plants that live through with dormant buds such as Peonys, Delphinium, Phlox, etc., appear to need little or no protection if the roots are well established, and the protection, if given, may be of coarser material. Other kinds may be protected with dry forest leaves, marsh hay or rye straw, and if necessary, may be held down with brush. Heavy covering or dampness will cause the leafy centers to rot.

W. A. Toole.

Annual Convention, Madison, December 15, 16, 17, 1914.

"The Prince and the Pauper."

A Fanciful Tale Having Some Foundation in Fact.

F. Cranefield.

THE PRINCE.

It was on a beautiful September afternoon two years ago that I first saw the Prince. He was swinging in a hammock, one toe just touching the ground, for means of propulsion, reading *Leatherstocking Tales* and whistling loudly. If you doubt that these things can ail be done at once ask any Prince who will tell you it is *easy*.

His overalls, hung by one suspender, reached but half way from knee to ankle showing stout brown legs. His hair *didn't* stick thru holes in his straw hat because he had no hair to speak of since his last trip to the barber and his hat he had not seen for many days.

His face and hands were not faultlessly clean but his skin was brown like an Arab. His bright eyes, plump cheeks and sturdy limbs spoke health and strength.

This is not the likeness of a Prince of story books but of a Prince none the less for he was lord of many domains; of fields of grain where rabbits nested; of stubble fields where mice hid in the sheaves and feasted riotously until the Prince and his dog, to-day in his fancy a Crusader, yesterday a mighty hunter, fell upon them and slew them. Lord of the pasture fields where gophers and woodchucks dwelt but not in peace because of the Prince and his dog. Lord of the roadsides and the steep hillsides where blackberries and wild flowers grew and best of all his dominions, the orchard.

For it was September and row on row of Wealthy, Snow and McIntosh hung full or had dropped part of their luscious, juicy load in the long grass beneath their bending branches.

No need to say this was the place the Prince loved best for here he held high dominion, selecting only the ripest and the best, not alone for himself but for all his subjects far and near.

Ripe, juicy apples were to be had at any hour of the day for the picking, sweet ones as well as fragrant, spicy McIntosh.

Just as I approached the Prince dropped his book, sprung nimbly out, raced across the lawn over the stile and thru the orchard to his favorite tree. Soon he returned with bulging pockets, lay on the grass and ate more Sweets than I care to tell.

No doubt you are tired of this and ready to tell me this was no Prince but only a farmer boy or a fruit grower's son but I will answer you that he surely was more fortunate than any Prince for no real prince ever lived so care free and happy as he did nor had such apples to eat.

Nor could any real prince have smuggled three or four apples, choice ones, under his pillow for a late lunch without being found out.

Truly no real prince lived as this boy lived.

THE PAUPER.

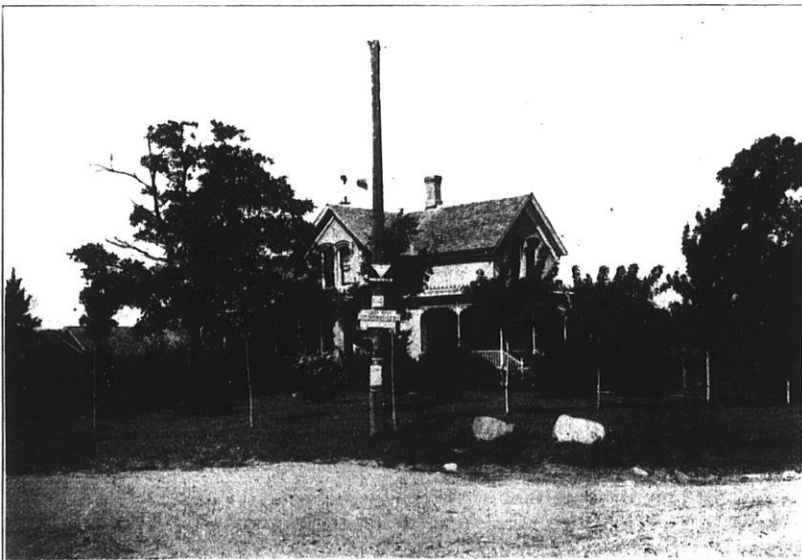
He was not really a pauper because he had a home, such as it was, down back of the big south-side foundry, and a father, such as he was, who worked in the foundry for just a living wage most of which he spent for strong drink which the scriptures say is "raging". He drank because he was poor. Nothing of the joy of living as we know it had ever penetrated the dull gloom of his existence. (Read Markham's poem "The Man With the Hoe" for the balance of the picture.)

The Boy's mother, (as he was not really a pauper will call him "The Boy") must have been different altho I did not see her. I only know what The Boy said later,—just two words.

It was on another September afternoon when I first saw The Boy. He came boldly into a hall where many of us had boastfully set forth for the view of all the people of the land the choicest of apples, banks of apples, tables and benches loaded with apples, great red apples, apples of pale translucent skin faintly blushed with red, apples of all the colors, shapes and sizes in which apples grow and all within easy reach.

the hungry Boy. Why didn't I turn away and pretend not to see?

It was theft but the God who watches over The Boy and other boys who live back of the foundry forgives thefts like that. But others had stolen apples that day and torn down signs, others who were not hungry, bigger boys, men and women too and my nerves and temper were worn and ragged. I think also the devil possessed me for I followed him



This picture is purposely printed without name or descriptive matter. Why is it printed? Comments are invited.

The Boy was as old as the Prince and but half his size; his clothes worn but not ragged, his face thin, pinched, starved. He had never known what it is like to eat all he wanted of what he wanted. His eyes were full dark brown like the Prince's but unlike his were furtive and shifting.

He sidled in between some grown-ups, looked long and longingly at all the beautiful apples we had set there to tempt this hungry boy. From end to end of the room his glance shifted warily and with stealth born of the life back of the foundry he slipped two of my precious apples into his pocket, two out of twenty thousand, two insignificant little apples but what a feast for

out, crept up behind him, grabbed him by the collar and demanded that he come with me, where I had not considered, probably to the hall that he might return those two apples out of twenty thousand or fifty thousand.

He shrunk with terror from my grasp, in his eyes no longer the stealthy look but one of fright and pleading. He shook from head to foot and in a sobbing voice that I hope for my peace of mind I may never hear again, he said: "Oh please mister don't 'rest me, me mother,"—I heard no more for as I looked into that face, into those pleading tear-dimmed eyes I thought of the Prince and as my hands dropped from his shoulders he fled. I

crept back ashamed, humiliated and my soul filled with resentment that such things can be. I shall not see The Boy again in flesh and blood but I shall see him often in spirit and the remembrance of his pleading eyes and piteous voice will help me fight better, work harder and pray oftener that some day there may be trees enough and apples enough so that The Boy who lives in the alley back of the foundry and all his kind may have apples without stealing them.

Grown in Wisconsin.

MENU.

For Christmas.

Vegetable Oyster Stew
Celery
Roast Spring Chicken
Dressing with Sweet Marjoram
Mashed Potatoes
Escalloped Parsnip Baked Squash
Olivéd Cherries Pickled Beets
Water Cress Salad
Plum Jelly
Pumpkin and Ground Cherry Pie
Barley Coffee Pure Guernsey
Milk

Grown

In Wisconsin
at Oshkosh
On Rasmussen's Fruit Farm

Menu.

German Vegetable Soup
Tomato Gumbo
Celery Radishes
Green Pepper Mangoes
Baked Trout Stuffed Roast Squab
Roast Beef
Baked Ham
Baked Potato Mashed Potato
Sugar Corn-Baked Squash
Sweet Peas
Watercress Salad Fruit Salad
Pumpkin, Cherry or Apple Pie
Raspberry Ice cream
American or Sage Cheese
Barley Coffee Elder Tea
Pure Milk

Mrs. N. A. R.

Thanksgiving Menu "Made in Wisconsin."

Tomato Soup with cretons
Whitefish Caviar Canapes (Port
Washington)
Roast Duck with Browned Potatoes
and Apple Sauce
Stuffed Onions, Baked
Green Peas (Wisconsin canned)
Buttered Creamed Carrots
Cucumber Pickles Spiced Plums
Cranberry, Salad of
Sweet Peppers (Wisconsin canned)
Onion Jelly
Cabbage and Celery, Sour Cream
Dressing
Crackers and Waukeshu Cream
Cheese
Apple Pie Squash Pie
Ice Cream with Jellied Strawber-
ries or Sunpreserved Cherries
Hickory Nut Cake
Black Walnut Taffy (Wisconsin
Sorghum)

Grape Juice Cider
B. H.

Good Enough for Christmas.

These three menus, "Grown in Wisconsin" were prepared for Thanksgiving but as this number of Wisconsin Horticulture will be a trifle late for 1914 Thanksgiving dinner the Editor suggests that any of these are good enough for Christmas dinner.

Some Money.

Senator Theodore E. Burton of Ohio, chairman of the Inland Waterways Commission and member of the National Monetary Commission delivered an address to a crowd of 2,500 people at Madison on the 16th of November. In speaking of the national expenditures and their use he said that the loss to the United States through pests, both insect and fungus, is conservatively placed at \$600,000,000. This is indeed a conservative estimate but it is large enough. Did you ever try to figure out just how much a million dollars is? N. F. H.

CRANBERRY NOTES.

J. W. Fitch.

UNRIPE BERRIES.

One of the lessons that will be, it is hoped, strongly impressed on the eastern cranberry grower, is that unripe fruit should not be forced on the market. Had the Cape Cod growers waited 10 days longer before picking their crop of early blacks it might have made a good many more dollars in their pockets as also the Wisconsin and New Jersey growers. The green fruit did not make very good sauce and the public consequently did not consume them readily. The later shipments being of better quality consumption has improved somewhat but much was lost. This was especially unfortunate in view of the large crop and other unusual conditions. Sugar having dropped to almost normal price and berries retailing at 7 to 10c per lb., the rest of the crop should be consumed.

A LEGAL DATE.

There is some talk in the east of making a repetition of this seasons mistake impossible by having a law passed prohibiting the shipment of cranberries before the 15th of September. Years ago when the cranberries grew wild the land was owned by the state. There was a law prohibiting the picking until the 15th of September, and it is generally admitted by Wisconsin growers that the ideal time for gathering the crop is from the 12th to the 25th of September.

A good many years ago when Wisconsin raised more berries than Massachusetts or New Jersey there was a similar condition. A grower tempted by the offer of \$12.00 a barrel for early berries picked two carloads, 400 bbls., of green berries, with the result that they spoiled the market for the rest of the season. Cranberry growers should follow

the example of Germany who endeavors to supply what the market wants, and not try and make it take what they want it to take.

HONEY BEE A FRIEND.

It is interesting to note that Prof. Franklin on the experiment station at Wareham, Mass., has demonstrated that the honey bee is a valuable aid on a cranberry bog. There they rent bees for their help in pollinization. This has been a very much mooted question among Wisconsin growers. The honey-bee is certainly an indispensable adjunct to horticulture.

Make Haste Slowly.

Eighteen years ago a well-known fruit grower and nurseryman of this state discovered an apple seedling planted in 1848.

With all the enthusiasm of a true horticulturist he pounced on it, propagated it in his nursery and led all the world to believe it a "coming" apple.

Eighteen years later, in answer to an inquiry, this gentleman writes as follows:

Nov. 9, 1914.

"I have discontinued growing it in the nursery myself, as the nursery trees appeared to grow more to wood than to fruit, and while the old tree used to bear remarkably well, it may have been unproductive in its younger days.

I must confess that while what I said at the time I began propagating it was true and correct, yet I now deem it unworthy of further propagation and dissemination, owing first, to its tardiness in bearing fruit; second to its exceedingly large core; third, its color and form, all of which are against it as a profitable variety."

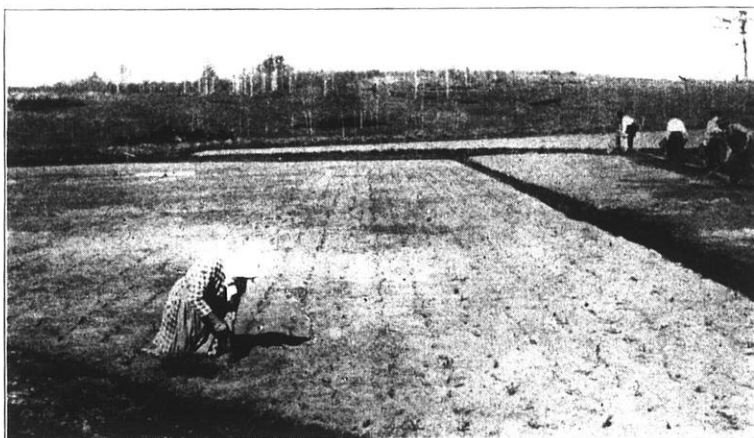
All of which goes to show that we may well make haste slowly when introducing seedlings.

**Annual Convention, Madison,
December 15, 16, 17, 1914.**

Making a Cranberry Bog.

J. W. FITCH.

A series of cuts illustrating the methods used on Cape Cod in bog building and applied in Wisconsin at Shell Lake where Mr. Charles L. Lewis, Jr., of St. Paul, Minn., is developing a bog along scientific methods will give the readers of this paper some idea of the expense and labor required to prepare bogland in the way generally admitted to be the most profitable in the long run.



Sanding a cranberry bog on Cape Cod.

Mr. Lewis who spent a year at our experiment station with Mr. Malde and a year at the experiment station at Wareham, Mass. is very sanguine of the profitable outcome of the undertaking. The first cut, which appeared last month, shows the method of applying the sand, which is put on to a depth of 4 inches and at a cost of from \$75 to \$125 per acre. Up to a distance of 50 rods this is the cheapest way to do this; at a farther distance it is put on by teams hauling on the ice. The odd wheel barrow used was developed on the Cape and found to be best adapted to the work, most of the weight being on the wheel and it is something of a trick to learn how to use one.

There are many reasons for putting on the sand. The vines do not require it; in fact in Wisconsin there are very few bogs sanded as

yet, but in the cape the reverse is true and the large and regular crops on the cape and in Wisconsin on the sanded bogs imply that the sand does help. In the first place, the bog should be as level as possible. The sand applied should be clean, then by sticking the vines clear through the sand into the peat below the bogs can be kept dry enough that weeds find it hard to start in the dry clean sand on the surface.

This helps greatly in lessening the expense of weeding. A Cape

Cod bog is indeed a beautiful sight, as there is nothing allowed to grow but the cranberry vines, and it is hoped that before many years we will have many such in Wisconsin. Next month we will tell some more in regard to the value of sand.

Apple Eaters.

Our little city of less than 4,000 has acquired the apple eating habit (I think the **apple crank** is responsible for part of it). Last year when Wisconsin had a large crop eleven carloads of winter apples were shipped in. This year to date eight carloads; one firm alone has sold 1,000 barrels. Is it too much to hope that some time this will be supplied by stuff "Grown in Wisconsin"? The field is a large one, and who knows but the Sauk Co. orchard will solve it,

H. C. Melcher.

The Indoor Window Box.

The indoor window box, properly planned and tended, will afford much pleasure and satisfaction to the housewife who misses her out-of-door garden during the winter months. It is a mistaken notion that plants when kept in living rooms use up certain elements of the air in such quantities as to make it unhealthful for individuals using the room. It is much harder on plants to be in a room with people than for people to be in a room with growing plants. Plants, indeed, use air, but use such a small proportion that the effect of the plant in the room is negligible if the room is ventilated at all. This also holds good for cut flowers or plants in a sick room, although the odor of some flowers may be depressing to the patient, and bad for that reason.

A good depth for an indoor window box is about 12 inches. The bottom of the box should be covered with stones and broken pottery to give drainage and this should be covered by a layer of moss to prevent the soil above from working down through the stones. The soil should come to within an inch and a half or two inches of the top of the box.

The indoor window box should be made to fit into the window. To get as much light as possible it should be level with the window. It may be fastened with brackets or placed on a table, or have legs made for it.

The top of the soil should be allowed to become quite dry once in a while. The results of watering will teach the owner to regulate the supply. Boxes may need watering in sunshiny weather (especially toward spring) every day, or at least every other day; in cloudy mid-winter weather not more than once a week. As a rule it is better to water lightly and frequently than heavily and infrequently.

U. S. Dept. of Agriculture.

Couldn't See Straight.

Editor Wis. Horticulture,

In the November issue of your paper you have a statement from a "member" who says that he saw thousands of cherry trees in Door County that were not picked because of a lack of pickers. Our Exchange handled most of the cherries that were shipped last year and we had no trouble in getting the cherries picked and as far as we could observe and from diligent inquiry there were no trees that were not picked because of a lack of pickers. We were able to arrange for outside help last year and this year the arrangements will be carried on more extensively than before and it will be a long time before trees in Door County will remain unpicked for lack of pickers. "Member" should improve his vision before going out on another such expedition.

A. C. Greaves, Mgr. Door Co. Fruit Exchange.

(The editor offers the following: The best of pickers leave a cherry now and then sometimes carelessly sometimes because not all ripen at once. This year many of the cherry trees in Door Co. shed their leaves soon after picking season and these single cherries sprinkled over the tree, probably as much as a couple of quarts in some cases, looked like a big crop of cherries left unpicked. Sometimes we cannot see all the way in one look, we have to look twice.)

The Forest Apple.

Keep in mind, at the convention, to ask Mr. H. C. Melcher about the Forest Apple.

The Forest is not a Wisconsin seedling nor a new variety. It was described by Downing nearly fifty years ago.

"I have been growing it successfully for twelve years. Wisconsin is on the look-out for good Winter apples and there is so much to be said in favor of this one that it ought not to be over-

looked. I came across the tree accidentally 15 years ago in a job lot of trees. Three years after they commenced to bear and with the exception of 1910 when everything failed they have borne every year. The quality is excellent. It is in the same class as Delicious which it resembles very much in everything but color. Neither one is a pronounced sweet apple, nor are they acid enough for cooks. Forest will never go mealy with age as Delicious does. It rarely scabs while Delicious grown in southern Wisconsin is very liable to.

There is just as much to be said in favor of the tree as the fruit. It is hardy as an oak and never blights; the wood is hard and very brittle, and the apples stay on the tree till they are picked. It is an annual bearer; a heavy crop being followed by a medium one. The same trees that had 30 barrels last year had 12 this year.

On the local market here it has made a reputation and the crop is always sold in advance.

Now what's the matter with such an apple? Isn't it worth pushing along? I have got two nursery firms to propagate it. I am not interested financially in the sale of these trees, I just did it for the good of the cause.

The Lake Geneva Chrysanthemum Show.

I have always considered our horticulture members from Lake Geneva the keenest of competition in the vegetable line but after visiting their Chrysanthemum show held in Horticulture Hall, Lake Geneva, I wondered how the rest of us would fare if they got after the fruit and vegetable proposition as they do the floral game.

I was fully convinced that, so far as quality is concerned, fruit and vegetable growing in Wisconsin are still in their infancy. Even the large Chicago shows were out-classed in quality and size of blos-

soms by the exhibit of our Lake Geneva brothers. Perfect white flowers measuring 9 in. in diameter and $27\frac{1}{2}$ in. in circumference crowned stems more than 4 ft. long. A plant of this same variety but grown for number of blooms rather than size measured 8 ft. in diameter and bore upwards of 800 flowers. More than 100 different varieties, of all colors known to the chrysanthemum world, from $\frac{1}{2}$ in. in diameter to the mammoth 9 in. flowers were in evidence. There were also many other varieties of flowers and plants shown including orchids of finest quality, handsome yellow carnations and blue water lilies, to say nothing of the countless numbers of palms, ferns, etc.

I fully believe that if our local orchardists would manage their orchards in the skillful way in which these chrysanthemum homes are managed the western box apple would soon find itself far outclassed by our Wisconsin products.

N. A. Rasmussen.

Do Apple Trees Live in Wisconsin.

Sometimes. On page one is a picture of a King apple tree seventy-four years old.

This grand old King stands on a little knoll and has for company a Talman somewhat younger, a plum still younger and a mere stripling of Autumn Strawberry of about forty summers. The splendid tree pictured here stands in sod and from all indications has so stood for half a century. It is still sound in trunk and branch and with careful pruning and spraying is good for at least one hundred years more. The facts concerning its age may be easily obtained from its present owner, a genial old German lady, name forgotten, who lives in a neat little home about one mile northwest of Hale's Corners, a little town a few miles from Milwaukee.

Many of our readers will need no introduction to the genial gentle-

man standing on the left with a firm grasp on the situation, and the tree. To others, "shake hands, gentlemen, with Dr. W. S. Powell of Bayfield."

On the right is a pipe.

Prof. Sanders, the photographer, is unfortunately but of necessity out of sight.

In this corner of the state, eastern Waupaca and practically all of Milwaukee county, any variety of apple known may be successfully grown. Varieties like the Baldwin, R. I. Greening, King, Spy and many others that are short lived in other sections live to a good old age here. There are thousands of trees of these varieties in Milwaukee county fifty and sixty years old. There are openings here in plenty for young men who can look into the future twenty-five years or more.

Some Thoughts Not Horticultural.

The Extension Division, of the University of Wisconsin, has organized a lecture course designed for the use of rural communities and any neighborhood may obtain one by making application to the head of the department, by some reliable party in the community. He should state as nearly as possible what kind of entertainment is desired, and ask the probable cost. The desired information will be immediately forwarded, and he should then canvass the community to learn if such a course is desired and if it will be patronized sufficiently to pay expenses.

The course will cost nothing except the salary of the people on the program, and tickets should be sold at a reasonable price, so that all who wish can afford to attend.

The community desiring a lecture course must furnish a hall that can be warmed and lighted or if there is no hall the school house can be used. Should it be desir-

able to arrange the dates to avoid the evenings of the days when the school is in session, the request should be sent with the application, and the department will arrange the dates accordingly. The price of such a course is much below that charged by the lyceum bureaus, and the entertainments are very good, consisting of lectures by able men, on the current problems of the times. Discussions on the problems of rural life and how they can be met and solved. Dramatic readers personify vividly the characters and sentiments of the stories selected. The concerts are suited to the taste of the community, and if a preference is made known it will be gratified.

The time has gone by when those who reside a distance from town are obliged to deny themselves the pleasures of all entertainment except such as can be provided by local talent, which however good it may be is apt to become a little commonplace after a time.

A breeze from the outside freshens the atmosphere. A song from a new bird gladdens the heart and a comparison of conditions many times encourages and stimulates to further exertion which will bring its own reward in greater efficiency. We do not always realize our blessings until some one from the outside opens our eyes and gives us a contrasting picture.

Mrs. L. H. Palmer,

A New York Report.

A reliable report from the western New York apple belt gives the prevailing prices to growers as \$1.00 to \$1.50 pr. barrel. "In a few localities it has been difficult to dispose of the fruit at any price."

Moral.

Raise McMahan, McIntosh, Wealthy and others in Wisconsin and get \$3.00 a barrel.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 24 E. Mifflin St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second class matter May 31, 1912, at the postoffice at Madison, Wisconsin, under the Act of March 3, 1879.

Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of Wisconsin Horticulture. Remit fifty cents to Frederic Craneffeld, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and pays for two years. Personal checks accepted.

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Annual Membership.....\$.50
 Life Membership.....5.00
 Remit to Secretary W. S. H. S.,
 Madison, Wis.

THE CONVENTION.

The program, which is set forth on another page should prove a full and satisfying one but is after all only one part of the convention.

The getting together, the meeting face to face the men who are doing things, the visiting between sessions, the long confabs at headquarters some time lasting almost until morning, these things count most after all.

It is worth while, so come and bring your family, your neighbor and his family.

Announcements.

The Capitol Hotel will be headquarters for officers and delegates, rates \$2.50 to \$3.50, American.

The Executive committee will meet at the office of the secretary, 24 E. Mifflin St., Tuesday forenoon at ten-thirty o'clock.

Label all fruit shipments with owner's name and "Assembly floor, State Capitol." Adding the secretary's name leads to confusion as packages are then delivered at the office.

The Spray Pump Exhibit.

The exhibit of pumps etc. will occupy the ground floor of the Gay building on Carroll St.

These firms will exhibit sprayers: Bean Spray Pump Co., F. E. Myers & Co., The Hardie Mfg. Co., Henion and Hubbell.

The Corona Chemical Co, The Grasselli Chem. Co. and B. G. Pratt & Co. (Vreeland) will show spray materials. The L. L. Olds Seed Co. of Madison will show garden tools, etc.

Where is the Fault?

A man shipped a car of first-class fall apples from the Western Slope to Denver and got 45 cents a box of something more than forty-five pounds of apples each. The same man inquired at the same time the price of exactly similar apples in Denver and was told by the dealer he could have them for \$1.25 a box. The freight on these apples was less than 25 cents a box. On the same day these apples were priced, the same man called at a Capitol Hill grocery and bought a quarter's worth of the same kind of apples and of a similar quality and he got four pounds for a quarter, or \$2.70 a box. This would indicate there certainly must be something wrong with our marketing conditions.—Western Farm Life.

From the above it appears that the grower got .45c., the railroad .25c., the broker .55c. and the retailer \$1.45.

It is safe to say that this grower did *not* market his apples through a co-operative grower's association.

Hyperbolically speaking the grower in this case was a jackass with long ears, with much hind-sight, but short foresight; the broker or commission man a pig, just a little pig but the retailer a full grown hog.

This is not infrequently the case.

Protecting Roses.

All of our best blooming hybrid perpetual roses must be protected over winter for best results.

After trying all sorts of schemes I find the best way is to lift them late in the fall, being careful to get all the roots you can. Then properly label with painted copper wired labels. Then dig a pit two feet deep in a protected, well drained spot. Lay the bushes in the trench at an angle so that the tops of same will just be even with the surface. Pack the roots well with soil, firming with the feet. Under and over the tops pack marsh hay so that the dirt cannot come in direct contact with the wood. Then cover all with soil. Mound up a foot high over the top and keep out the rain. In the spring cut back all bushes to one foot, set out early in rich garden soil.

W. J. Moyle.

This plan will work nicely if begun the year the plants are set out and followed each year. Also the ground must be mellow and above all we must have a nice well drained garden spot near at hand where a trench can be dug.

For those unfortunates who lack these things there yet remains two chances: 1st tie the bush to a stout stake set close to the plant and wrap with carpet or gunny sacks; 2nd bend the plants to the ground, peg them firmly and cover

with leaves. The latter plan is not nearly as difficult as might appear even in the case of four foot plants. If the bushes are bent the same way each year they "get the habit" and will bend readily. I have followed this plan successfully for many years. In place of leaves, straw, hay or cornstalks may be used and the covering need not be heavy.

F. C.

Foliage not Flowers for Window Box.

It is very difficult to raise flowering plants in a window box with the exception of begonias. Ordinary flowering plants are very exacting, and will not find enough light in the ordinary living room, even though placed near the window, although they may do well in a conservatory. The main object of an indoor window box is to furnish the fresh appearance of growing green leaves rather than to raise flowers indoors.

Begonias are one of the most attractive plants that may be used for an indoor box. Small ferns obtained from a florist will flourish. These are particularly adapted to house culture, as they do not require direct sunlight.

Even more than hardy ferns is the foliage plant known as the *aspidistra*. This adaptable plant-growth will stand a measure of neglect, drought, and dust and still thrive.

Geraniums may also be used as foliage plants, though they must not be expected to blossom in the window box.

Kenilworth ivy may be planted along the edge. It will grow nicely from seed.

Smilax may be grown from the back of the box, and trained up about the window to give the effect of an attractive bower.

The ordinary individual who desires other varieties of growing flowers, may supplement his window box with flowering potted plants brought in from outside,

including bulbs. These will probably keep their bloom for a brief period only.

U. S. Dept. of Agriculture.

Fruit Growers Institutes.

The schedule of special institutes has now been arranged as follows:

- Bayfield Dec. 8-9
- Cornucopia Dec. 10-11
- Sturgeon Bay..... Jan. 12-13
- Egg Harbor..... Jan. 14-15
- Baraboo Jan. 26-27
- Sparta Jan. 28-29
- Richland Center... Feb. 23-24
- Pewaukee Feb. 25-26

This is a new departure for the department of Farmers Institutes and follows exactly the lines of the special horticultural institutes inaugurated by this society in 1912. R. J. Coe will act as conductor at all of the meetings and will also take an active part in the program.

Prof. J. G. Sanders, Prof. J. G. Moore, D. E. Bingham and F. Cranfield will each do something; a sort of vice commission to probe into the doings of the various bugs and beasts affecting horticulture.

War is — Bad.

The war has its effect on certain phases of the horticultural industry as well as on so many others. Foreign shipments of nursery stock have increased rather than fallen off, probably in an effort, on the part of the European nurserymen, to export as much as possible. A falling off will no doubt ensue. The inspection departments of Europe are seriously rushed, being handicapped by the shortage of men called to arms, and their work is very likely to be below standard. Importers, therefore, should exercise unusual care in noting any indications of insect or fungus damage, which might possibly have escaped the federal or state inspectors.

N. F. H.

The Great Northern Nursery Co.

Sells First-Class Wisconsin Grown Trees

Our Trees Live. We have over 50,000 No. 1 apple trees of the late varieties, all of our own growing; and a nicer lot of trees was never grown. They are smooth, clean, healthy, hardy and just the kind of trees to plant in a commercial orchard.

Before you place your order, Mr. Planter, for your trees, write us for prices.

We are the largest growers of apple trees in the state, we are confident that we can furnish trees that will please you, and our prices are right.

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

BERRY BOXES

Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16 quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Co.

Dept. D, Cumberland, Wis.

Make Your Own Barrels

At a cost of about 29c.

"BARREL MAKING SIMPLIFIED"

Tells How - - - Price \$1.

Sent free for 6 names of Apple

or Cranberry growers.

Send 10c for my little booklet

"THE MODERN BARREL"

IT'S JUST FULL OF "BARREL"

Information. 12 p. booklet free

LEON MILLER

2012 N. Germantown Ave. Philadelphia, Pa.

CONVENTION PROGRAM

Madison, Tuesday, Wednesday and Thursday, Dec. 15, 16 and 17, 1914.

TUESDAY AFTERNOON.

2:00 P. M.

Assembly Chamber, State Capitol.

Music by Bayfield Quartette:

Opening Address: Hon. Henry Johnson, State Treasurer.

Getting Acquainted with our Neighbors: Delegates from Northern Illinois, Minnesota and Iowa.

Bulbs and Their Culture: C. A. Hoffman, Baraboo.

Gladiolus Culture: Mr. C. R. Hinkel, Madison.

Some Flowers of Merit Not Generally Grown: J. F. Hauser, Bayfield.

Six Flowering Shrubs and a Dozen Perennials for Every Home: W. A. Toole, Jr., Baraboo.
(Papers limited to ten minutes each.)

Debate: The Barrel or the Box as a Package for Apples.

The Barrel: J. S. Palmer.

The Box: F. Kern.

The leaders will be given ten minutes each and volunteers 5 minutes each.

TUESDAY EVENING.

Assembly Chamber, 7:30 o'clock.

Music:

Program by Students University Department of Horticulture.

Fifty dollars will be awarded in three prizes of \$25, \$15 and \$10.

1. M. W. Brush: Variety adaptability of the apple.
2. R. W. Lenkel: Tree Surgery.
3. O. A. Trojahn: The Need of Horticulture in Northern Wisconsin.
4. R. M. Beckwith: Frost Prediction.
5. W. A. Moorehouse: Marketing Vegetables.
6. H. W. Dye: Potato Inspection and Certification.
7. L. M. Eaton: Utilization of Waste in Apple Production.
8. L. D. Eatough: The Relation of Co-operation and Advertising to Marketing the Apple.
9. B. F. Wood: Adapted Varieties.

The student contest will be very much better this year than usual. The students have been preparing for several months and Prof. Moore has spent a great deal of time on the preliminary contests. The nine students whose names appear here are the pick of the College and each will have something to say well worth hearing. The contest promises to be the best feature of the Convention.

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KELLOGG TREES

Wisconsin Grown for Wisconsin Planters
SIXTIETH YEAR

Specialties.—Apple and American plum trees, small fruit plants. Everbearing strawberries. A card will bring our special

INTRODUCTORY OFFER
which will surprise you. Descriptive price list free, and it will save you dollars.

KELLOGG'S NURSERY
Box 77. Janesville, Wis.

PAEONIES

Your garden is not complete without a collection of our best

PAEONIES

Send us a \$1.00 bill and we will express you ten good roots of our selection. Get our catalog.

W. J. MOYLE, Prop.
Wisconsin Nurseries
Union Grove, Wis.

Hardwood Ashes

A Substitute for Imported Potash

Two Hundred Pound Sack \$1

One Ton \$8

F. O. B. Iron Mountain

J. J. ESKIL

Iron Mountain, Michigan

(Member W. S. H. S.)

"We have a Fine Lot of
Plants for the Garden."

SEND FOR LIST

J. E. MATHEWSON
SHEBOYGAN, WISCONSIN

WEDNESDAY FORENOON.

Assembly Chamber.

9:00 o'clock.

Music: Bayfield Quartette.

President's Address:

Reports of: Secretary; Chairman of Trial Orchard Committee; delegates, etc.

Election of Officers and Executive Committee.

The Wisconsin Cranberry: J. A. Gaynor, Grand Rapids.

The Cranberry from Producer to Retailer. O. G. Malde, Superintendent.

Washburn is Also on the Map: Nels M. Oscar, Washburn.

The Pleasure and Profit in Growing Fruit Outside of the Fruit Growing Sections: H. G. Street, Hebron, Ill.

Question Box.

WEDNESDAY AFTERNOON.

2:00 o'clock.

Horticultural Building University of Wisconsin.

(Take Wingra Park Car to Hayes Crossing.)

Commercial Fruit Growing in Wisconsin: Past, Present and Future. Bayfield Co.—J. M. Black, Bayfield.

Door Co.—A. C. Greaves, Sturgeon Bay.

The Kickapoo—J. A. Harley, Gays Mills.

Richland Co.—G. H. Townsend, Richland Center.

Sauk Co.—Mrs. L. H. Palmer, Baraboo.

The Lake Shore—The Secretary.

(Plain statements of what has been done, the present status of the business, future prospects, varieties adapted to the different sections, progress in marketing, etc.)

WEDNESDAY EVENING.

Assembly Chamber, 7:45 o'clock.

Entertainment by Madison Horticultural Society.

A Musical Program consisting of selections by,

Guenther's Orchestra, a quartette and Mrs. M. Davies, reader.

(A special program will be issued Tuesday afternoon.)

The ladies' committee of the Madison Society will entertain the visiting ladies Wednesday afternoon. The program includes a theater party followed by lunch, etc., etc., etc.

THURSDAY FORENOON.

9:00 o'clock.

Gardening: J. P. Roe, Oshkosh.

Doing Things in a Different Way: J. W. Leverich, Sparta.

How Some Madison Children Earned Money in Gardens: E. J.

Prucha, Supervisor Madison School Gardens.

Gardening as a Hobby: Wm. Toole, Sr.

How to Have a Garden on the Farm: E. Schaffer, Oshkosh.

Pruning the Fruit Tree: Emil Sahler, Waseca, Minn.

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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1500 Acres Estab. 1868

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are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

WAUWATOSA, WISCONSIN

THURSDAY AFTERNOON.

Assembly Chamber, 2:00 o'clock.

"All College Sessions."

A Spraying Program: Prof. J. G. Moore.
 Spray Equipment: Geo. F. Potter.
 Soils: Prof. A. R. Whitson.
 Insects and Their Control: Prof. J. G. Sanders.
 Fungous Troubles: Prof. L. R. Jones.
 Fire Blight: R. A. Vaughn.
 An Experience in Fighting Fire Blight: Richard Marken.
 Speakers limited to ten minutes each. No limit on questions.

The Box and the Barrel.

Western apple growers are talking "barrel" more each year. They are just learning that there is no money in the box apple except for the very best grades.

A writer in the Pacific Coast Fruit Distributor makes these frank statements:

"While it may be admitted that 'C' grade will have a hard time to pay expenses in 1914, we do not admit that they cannot be made to pay expenses by a radical change in our marketing of them. It is true that it costs an average of 55c to market our 'C' grade, or about the same as the extra fancy, so the root of the whole matter is, 'Can we put our 'C' grade on the market cheaper than we are doing without hurting our best grade? Is it worth while or is it sensible to put a low grade apple through the same expense as the apple that would bring twice the price, pulling our average down to nothing on the good apple. Compare the boxing of this grade with the barrel method. The barrel is considered the cheap grade method. Then why not use it with the cheap grade apple?'"

He further shows that the cost of marketing three bushels by the barrel method including barrel, packing, hauling, marketing and local exchange commission to be 80 cents while for three bushels in boxes the cost is \$1.17.

Why?

Why the antipathy to the Kieffer pear, except the writer be a boy who is in the habit of swiping fruit? For, unless he has a straw-stack in which to hide them until near Thanksgiving, they are not worth taking. But I do not want any legislature to interfere with my Kieffer pear tree, for, since it was three years planted it has not failed to bear a crop, except the year of the great freeze, when, with its load of blossoms it looked like a snow-bank before the real snow came and covered it, and the following year during which it became convalescent.

This year it bore about 4 bushels of fine large pears some of which are now ripening for a part of our Thanksgiving cheer, while others fill the void in cans left by the absence of sweet apples and cucumbers, and fill it admirably as sweet pickles, or as sauce.

I need to be "shown" the criminality. Mrs. G. F.

Africans.

Dr. J. W. Peroutky gathered a nice bouquet of African daisies from his garden on Tuesday, Nov. 3d. These flowers had been covered up but one night to protect them from the frost. Come home you Californians, and live in a real climate.—*Star Advocate, Merrill.*

The flower referred to is the *Arctotis Grandis*. The African

golden daisy, the *Dimorphotheca*, is quite as hardy and late of bloom and even more charming.

Annual Convention, Madison,
 December 15, 16, 17, 1914.

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 Transparent, Transcendent and
 Whitney Crab. \$10.00 and
 \$20.00 per 100, cash with order.**

This is our last block of
 northern grown apple trees.

**HENRY LAKE SONS
 COMPANY**

Black River Falls, Wis.

Notes on Insects.

N. F. HOWARD.

THE GARDEN FLEA HOPPER.

Is your smilax becoming discolored? Several greenhouse men in the state are having serious trouble with a small black bug which resembles a flea beetle. The mature form is about 3/32 of an inch long, is shining black, and can hop like the well known potato flea beetle.

To control this pest clean up all unnecessary growth about the greenhouse, for bad infestations are usually traced to breeding places outside. The direct repression of the insect in the house can be accomplished by the use of a contact insecticide such as kerosene emulsion or tobacco solution. How strong a solution of either one smilax can stand is not known. Thoroughness is of course essential, but very difficult because of the leaping ability of the bugs.

This bug, like all true bugs, has a sucking beak which it inserts in the leaf, and through which it sucks out the juices, leaving the surrounding tissues empty. These tissues soon collapse and a whitish patch results, causing an appearance like the work of thrips, exemplified by our common onion thrips injury.

In greenhouses smilax is the favorite host, but this species also attacks chrysanthemums. In the garden it is injurious to beans, peas, eggplant, and beets, also living on several of our most common weeds when the above are not available. The fact that many insects and plant diseases spend part of their life cycles on weeds is no despicable argument for keeping down the weeds in the garden and seed bed.

FLORIDA FERN CATERPILLAR.

The Florida fern caterpillar was collected the first time in this state about the middle of last

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

By extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

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Snow and Northwestern Greening**

Try a few of the new sorts if you wish. We have them. Our **Fruit Trees, Small Fruit Plants, Vines and Ornamental Stocks** were never better. Our prices are as low as any where *quality of stock* is considered.

Our Landscape Department will draw your plans and do your planting. Write today for our new catalog and your list of needs for next spring.

THE COE, CONVERSE & EDWARDS CO.
FORT ATKINSON, WIS.

SALESMEN WANTED

"CHASE QUALITY STOCK"**IS WESTERN NEW YORK GROWN**

We are often asked the question, "Why are trees, grown in the vicinity of Rochester, N. Y., better than those grown in other locations?"

For the first three years a tree can stand no great drawbacks, and is governed by Nature's laws, the same as animal life; it must start out with a constitution if it is ever to make a vigorous fruit-bearing tree.

It is an acknowledged fact that trees grown in the Lake Ontario region of Western New York have withstood the test of years, and when transplanted to every state in the Union have proved of unsurpassed vitality, and given good satisfaction to the purchaser. The soil is specially adapted to tree-growing, and the first thing noticeable to a stranger is the thrifty appearance and fruit-bearing qualities of the trees in this locality. Added to the advantage of soil comes the climate, and in no place within our knowledge is the temperature so even or the sun so obscured in winter. The tender tree is never subjected to those sudden and rapid changes caused by bright, warm days, so prevalent in some sections, and which will start sap in February or March, oftentimes to be checked in a few hours by zero weather—and before the young tree has arrived at the age to withstand these reverses, it has become sickly and stunted.

Buy our Western New York grown piece-root grafted apples for Spring 1915 planting.

CHASE BROTHERS COMPANY

The Rochester Nurseries

Rochester, N. Y.

month by Mr. A. C. Burrill, one of the nursery inspectors. This so called "worm" belongs to the large cutworm group, or night flying moths. The larva or caterpillar is slender, yellowish green to dark green or nearly black, and has a V shaped mark on the head. It is surprising, but not unnatural, that one of the prominent fern growers in the state confused this southern pest with our common cabbage butterfly larva. In addition to other distinguishing marks the latter is covered with minute hairs, while the fern caterpillar is not.

Injury from this caterpillar results in the ruin of the fern for commercial purposes, due to the mutilated fronds. The midrib is often the only portion left on some pinnae, but the larva may cut off whole fronds, destroying more than it eats.

No effective, practical method of controlling this pest, other than hand picking is known. Hellebore scalds the foliage seriously; poisoned bait is not attractive to the larvae, arsenate of lead applied in quantities strong enough to kill the larvae leaves a white deposit on the foliage which destroys their commercial value. Fumigation with carbon bisulphide has not been very successful and from all indications of the effect of hydrocyanic-acid gas on larvae in general, this gas would not be efficient without injuring the plants.

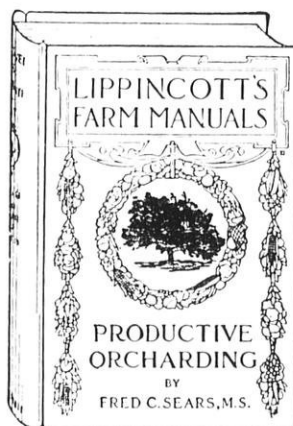
MITES IN DWELLING.

Small reddish brown mites, eight-legged creatures, only three hundredths of an inch long, sometimes find their way into houses in the fall of the year. While they belong to the spider group, and henceforth are not true insects, they are usually considered with them for all practical purposes.

The mite which occasionally assumes the role of a household pest is strictly estranged from its nat-

The Growing Demand for Fruit Means
Profits in

ORCHARDS



Productive Orcharding

Modern Methods of Marketing and Growing Fruit

By FRED C. SEARS

Professor of Pomology, Massachusetts Agricultural College.

With 157 illustrations and 316 pages, volume 6" x 8 1/2", handsome and durable cloth binding.

An authority on farming topics said that this book is without doubt the best on the

subject of orcharding on the market to-day. Every owner of an orchard, whether a small family one or the largest commercial orchard, needs this work and will find it valuable. The author has devoted years to fruit growing on a large scale, and in this book has carefully sifted out and discarded orchard methods which will not work and included only those of known and tried value. It is practical, complete, up-to-date, and authoritative, covering every phase—from the buying of land, selection of fruit, to grading, packing, marketing, and advertising of fruits. It is indispensable to any student, farmer or fruit-grower.

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The Kickapoo Valley

Wisconsin's Favored Fruit District

Orchards planted and developed.
Choice orchard tracts for sale at
farm land prices.

The Kickapoo Development Co.

Madison or Gays Mills, Wis.

ural environment. It is a clover mite and goes by that name, but is well known to fruit growers in some localities as a pest of fruit trees, on which it does damage similar to that done by the red spider in greenhouses. In the fall of the year it migrates from clover fields to fruit trees, where it lays eggs for the overwintering stage. When a dwelling is encountered by the mites on their way to new quarters, they find their way inside and become very troublesome because of their large numbers.

In combatting this unintentional invasion, 25% kerosene emulsion or clear kerosene may be used on the sides of the house and wherever the mites are seen. Inside, powdered sulphur applied with a blow gun, or a mixture of half kerosene and half gasoline sprayed about the windows and doors and where the mites appear, are quite efficient. The latter mixture will not damage the furniture or walls, but is, of course, very inflammable.

San Jose.

About a year ago a bad infestation of San Jose scale was discovered at Racine by the State Nursery Inspector. Careful, systematic eradication methods were carried out and on a recent inspection, this region proved to be free of this undesirable visitor.

DEFINITIONS.

Larva:

"The immature, wingless, and often wormlike form in which * * * insects hatch from the egg, and in which they remain with increase in size and other minor changes until they assume the pupa or chrysalis stage."—Webster's Dictionary.

The larva of the codling moth is the apple "worm."

The larva of the May Beetle or June "Bug" is the white grub.

The larva of the cabbage but-

terfly is the green cabbage "worm."

The Origin of the Baldwin Apple

According to Mrs. Nellie M. Baldwin Farmer of Pittsburg, all Baldwin apples come from trees that are merely scions of a famous tree which belonged to her great-great-uncle, Loammi Baldwin. Mrs. Farmer tells an interesting story of how the Baldwin apple was discovered, as follows:

"Loammi Baldwin, my great-great-grandfather's brother, was out hunting near Wilmington, Mass., one autumn many years

ago before the outbreak of the Revolution.

"He came upon a wild apple tree, laden with beautiful fruit and, on tasting, found that the apples upon it were the most delicious he had ever eaten.

"Realizing that here was something worth far more than the rabbits he was after in an afternoon's fun, he took a handful of scions from the new tree and, arriving home, quickly grafted them on to young apple trees.

"In about five years Uncle Baldwin began to present his neighbors with a table apple that had a new flavor so delicious that

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ETC.**

MYERS WAY

he was always forced to make explanations. 'It's a new tree I've found, and I'll give you some scions—I call it the Pip-pin apple,' he said.

"But the neighbors forgot all about what Uncle Baldwin called his pet apples. They always referred to them as the Baldwin apple trees, and so the name has clung down to the present time, when there are millions of Baldwin apple trees, all descended from that wild tree in Wilmington.

"For many years the wild tree lived and flourished and was visited by many. And after it died there was erected by the citizens a monument where the stump was crumbling to dust."

And that is the history, with slight changes, of every good apple we have either east or west, just found in the woods or in a fence corner.

Nature seems to take her own sweet way and to ignore the efforts of scientists.

Will some one kindly name a single standard commercial fruit of importance produced as a result of artificial pollination?

—Editor.

Miniature Gardens.

As a child in Japan in the early '70's it was my delight to visit a neighboring gardener who always kept for sale a number of miniature gardens exquisitely designed and made up according to the most exacting rules of the beautiful garden art of Japan. Everything was perfectly proportioned, the little trees, houses, ponds, bridges were suited to each other. The trees were real pines dwarfed and symmetrically grown. I spent much of my pin money in buying them, but somehow, my ignorant little childish hands never made them live. Consequently it is easy to understand how the present fad for miniature so-called Japanese gardens touches a responsive chord in me

and makes me welcome it faulty and false as it is to all the traditions of the beautiful art which it tries to imitate.

To make a so-called "Japanese miniature garden" one must have a platter or a white enameled tray, some are especially made for the purpose; some bits of horse-radish roots, carrots, or any roots likely to sprout in water, and the little Japanese figures, huts, bridges, mountains, etc.,

sold for the purpose. A year ago these figures, etc. could only be found in the best department stores, but now one can get a good selection of them in the ten cent store.

Having secured the figures, bridges, cottages, etc. wanted, also the roots, proceed to cut the horse-radish and carrots into chunks so as to simulate islands, mountains, etc. one can make the garden to suit oneself. B. H.

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Those are Mr. Hale's returns from his J. H. Hale peach orchards. Never before has there been a peach like this. Averages $\frac{1}{2}$ to $\frac{1}{2}$ larger than Elberta; round shape; golden yellow flesh, carmine skin; *practically fuzzless* like an apricot; flesh firm and meaty as a cling, yet perfect freestone; weighs 12% more than Elberta; ships immense distances; wonderful keeper; exceptionally hardy; late bloomer; long fruiting season; ripens 5 to 7 days ahead of Elberta; brings 33% to 50% higher prices. Read whole story in catalog.

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Be on your guard against unscrupulous agents or concerns offering so-called J. H. Hale peach trees. We grow J. H. Hale trees under exclusive contract with Mr. Hale and are the *only authorized distributors.* Genuine J. H. Hale peach trees, hulled from Mr. Hale's own orchards and bearing true with his signature can be obtained *only* from Wm. P. Stark Nurseries, Stark City, Mo.

True Delicious Apple Trees at Grower's Prices

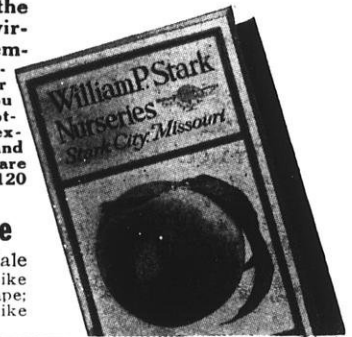
Delicious, the most profitable apple you can grow. We furnish genuine Delicious trees, Stark-Ozark Mountain grown at prices you ordinarily pay for inferior varieties. Get our money-saving prices on all other tested profitable varieties listed in our catalog.

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WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, January, 1915

Number 5

Why Sand?

J. W. Fitch.

An outsider attending one of our meetings would undoubtedly be struck by the many allusions to sand, clean coarse sand, the cleaner the better and since clean sand has very little growing material in it would be interested to learn the purpose it serves.

To begin with we may say that the land on which the cranberry grows wild is very rich black muck or peat, it holds a very large amount of nitrogen but this is not available, except to a limited extent, on account of the wetness of the land. Under conditions as they are at present this rich land is apt to produce too large a vine growth instead of fruit. It is also a great producer of all kinds of grass, weeds, brush etc.; hence to put on top of it 3 inches or more of clear sand is a great help in keeping down weeds for seeds cannot germinate if the bog is kept so that the sand is dry and loose on the surface. This is no disadvantage to the vines which when planted are pushed through the sand into the muck below. If the bog were kept wet the vines below the surface would rot. In about three

years the vines will have covered the ground so thoroughly that they will, with a little help, keep the weeds from getting started. It is somewhat expensive to put the sand on but anyone who has

fact were all the bogs in Wisconsin like those on the Cape frost damage would be almost unheard of. The reason of the protection is very interesting; the sand being loose and dry allows the heat



Both cranberry bog cuts which have appeared in earlier issues as well as the above were taken from actual operations on the bog of the Badger Cranberry Co. at Shell Lake, Wis. We make this correction because we believe that too much credit cannot be given to Mr. Lewis in undertaking the making of a bog on strictly scientific or Cape Cod methods, for we believe that it means a wonderful advance for the Wisconsin cranberry industry.

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of the day to pass through it into the peat below, thus actually keeping the vines a little cooler in the hot sun than those on the peat, while at night the heat comes back slowly, thus producing a more even growing condition. This is a great advantage during nights that are not cold enough to

freeze but are cold enough to check growth. On the sand bogs the temperature being several degrees higher the vines keep on growing adding, as is said by Mr. Andrew Searls, a prominent grower, as much as 300 hours extra growing time which is a great deal when we consider the shortness of the growing season. After the bog is a few years old it is necessary to re-sand, that is put on about $\frac{1}{2}$ inch every two years. This induces new root growth and also rots any mulch which might accumulate and prevents the radiation of heat. A bog should be as level as it is possible to get it before one goes to the expense of sanding. There are many advantages which a level bog has over an uneven one, especially in flooding for the purpose of destroying insect pests which are getting quite troublesome. It is found that the berries raised on sanded bogs are much better quality, larger, sounder and better keepers. Also on these bogs they can be gathered much cheaper for the berries being not only thicker but free from grass and brush so the raker or scooper has much easier work and can gather many boxes more than on the average bog where from 6 to 10 boxes a day is a good day's work while on the sanded and clean bog as high as 80 boxes have been gathered.

Sweet Peppers.

One can scarcely pick up a recipe for salad or sandwich, without finding pimento named as one of the ingredients. Until last year I supposed pimentos could only be had canned, and must necessarily be grown in a warm southern climate, but a year ago I chanced upon a paragraph in a well known woman's magazine in which the writer commented upon the general impression, and stated that really pimentos were only

sweet peppers that any one could grow them and moreover, can, dry or pickle them in brine for winter use. I forthwith put a packet on my seed list, and although my plants were not started in the sitting room window until the last of March, when freezing weather came I gathered from twelve plants over half a bushel both green and red. They were put in a cool cellar until time could be found to can them—but there in January they still wait. When one is wanted for a salad or sandwich, it is put in water to soak a few minutes, then cut up and eaten. Some have rotted, but most of them lose their withered look after a few minutes in water and make a creditable appearance in a salad. These peppers are delicious for utilizing left overs in meat, chicken, or even grated cheese, by combining the left over proteid with a starchy ingredient like boiled rice, or bread crumbs, seasoning to taste, before stuffing the pepper shells to steam or bake. Of course it is understood that in all cases salads, sandwiches, or stuffed, the seeds, core and stems must be removed.

At the School of Home Economics, U. W., Mrs. Hewitt says they have found them satisfactory when canned after boiling ten minutes in water.

There are a number of varieties of sweet peppers in every catalogue, but what is wanted as a pemento must be sweet, very mild and fleshy. The one described above was "Thorburn's Upright Salad" and a friend used two of Henderson's varieties with great success. One factor in considering the planting of these peppers is that a small can of them costs fifteen cents, and the contents must be immediately consumed or it spoils; for ten cents and a little labor one can have more than one is able to use and after early summer have them always on hand like the ever present onion. B. H.

Fundamentals of Spraying.

N. F. Howard.

From the grower's point of view insects are classified according to the insecticide which they require for extermination. The two main classes under this system are biting and sucking insects. It is true that some pests come under neither of these classes but rather fall between. Not all insects which bite or suck can be controlled by spraying, however, for example the borers and many soil infesting insects.

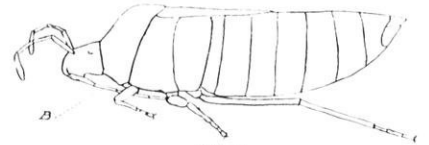


Fig. 1.

Biting or chewing insects swallow portions of the plant and are therefore repressed by the use of a stomach poison, such arsenicals as Paris green, arsenate of lead, and the like. Examples of this class are the well known potato beetle, numerous forms of caterpillars, the currant worm, asparagus beetle, and many others. Insects of this type have a pair of mandibles or jaws and several other complicated mouth parts which aid in taking pieces of the plant tissue. The object in spraying for such insects is to cover the surface of the plant so that the poison is eaten with the plant tissues.

Sucking or piercing insects take food in liquid form, obtaining it through a beak which may be one of diverse forms. Figure 1 shows a typical plant bug with beak. This group is typified by our common squash bugs, aphids or plant lice, leaf hoppers, and scale insects. It is obvious that insects which penetrate the outer layers of the plant and obtain the juices without swallowing any of the surface tissues, will not be affected by stomach poisons. Since it is impossible to poison the juices of plant the only course left is to kill the insect by means of some

chemical which will not injure the plant. Examples of such chemicals are lime-sulphur, kerosene emulsion, tobacco solutions, hellebore, and the like.

Some of our most serious crop pests are not to be reached by chemicals. Control under such conditions becomes a more difficult matter and requires the carrying out of different tactics. Such control methods will be discussed later.

Valuation of Varieties.

G. H. Townsend.

Advice about varieties is often misleading because there never has been a standard of valuation. The writer having had large observation of commercial varieties has undertaken a rating of the leading Wisconsin and other varieties. This of course is only a general approximation subject to variation according to soils and climatic conditions but such a rating is of value to get a basis standard. The Hibernial and Patten Greening are hardly commercial apples but are standards for winter hardiness in the North and Northwest. The distance for planting is subject to wide variation according to location and how the land is to be utilized between trees until orchard yields paying crops. Varieties that are long lived such as the Baldwin and Rhode Island Greening, where most extensively grown should be planted wide apart and Wagener, Wealthy or other varieties used as fillers. As these varieties are not hardy enough for Wisconsin they should be planted closer and hardy varieties like the Wealthy used for fillers. Some of our esteemed horticulturists oppose the filler system but commercial growers have generally adopted it. Apples rated less than 8 for hardiness should not be depended upon as a commercial enterprise without liberal interplanting of varieties rated at 8 or higher.

Some varieties russet badly from the sprays used but so many conditions enter into this that the ratings here given may be more or less inaccurate. In the North drought killing is not much of a problem but it is on the lower margin of the apple belt. The drought rating may need considerable revision. Personal taste has always been too large an element in rating the value of apples and other fruits. The writer is quite fond of Delaware and Catawba grapes and don't care a fig for Concord, but nine people out of ten would rather have the Concord. Horticulturists often speak disparagingly of an apple because it not a dessert apple. Take the Scott's Winter as an example—when the writer took possession of an orchard having considerable acreage of Scott's Winter, he was so prejudiced by leading horticulturists that he contemplated top working them as soon as possible. Imagine his surprise when he found them among the best sellers—some grocers preferring them to Baldwin as a better pie apple.

much as Wealthy last year—a good crop—and have considerable crop this year while the Wealthy has only a sprinkle. The writer protests against the loose methods of valuing varieties so common because misleading. To illustrate: we go into an orchard and look at a tree like the Winter Banana—a flat spreading skeleton. It seems to be loaded with beautiful apples and we march away declaring the Winter Banana a good bearer. Another dense foliage tree with a round top like the Newell (Orange Winter) seems to have only a few apples and is pronounced a poor bearer whereas the so called poor bearer yields twice as many barrels to the tree. Take the Wealthy and the McMahon; the latter bears approximately one third more per tree of same age. But the Wealthy will make up the difference by planting one third more to the acre which it will well stand. Whether a small producer will sell for enough more to be profitable is another matter to be settled by the growers' market.

Variety.	Growth.	Upright.	Spreading.	Winter hardiness.	Proth hardiness.	Seed resist.	Re-spring.	Earliness of bearing.	Length of life.	Annual bearer.	Biennial bearer.	Size.	Hardness.	Yield feat-ure.	Culinary quality.	Dessert quality.	Shipping quality.	Keeping quality.	Cold storage quality.	Distance to plant.	Selling quality.	
Wealthy	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
McMahon	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Fameuse	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
N. W. Greening	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
McIntosh	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Windsor	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Newell	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Duchess	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Yellow Trans.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Lusk Queen	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Golden Russet	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Scott's Winter	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Wolf River	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Jonathan	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Y. Bellflower	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Baldwin	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Winesap	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Grimes Golden	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Spitzenburg	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Ben Davis	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Northern Spy	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Newton	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
York Imperial	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Patten Greening	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Hibernial	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
R. I. Greening	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Winter Banana	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Wagener	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

They were also rated as poor You will note that North West-bearers, there again another sur-ern Greening is given highest rat-ving for growth and spreading

which suggests planting wide apart. This is not necessary as the tree will split down at crotches before it needs more than 30 feet. The North Western Greening, Newell and Golden Russet should not be planted any place for profit the first two of these bear too little before going to pieces, and the latter bears too little. Patten's and Hibernial might make money in extreme North where other apples are scarce. The Wagoner usually bears early and kills itself by overbearing; should be planted extensively as a filler and also top worked on stronger stock.

The Windsor is the best late keeping apple grown in Southern Wisconsin. It blights on clay ridges having fine lime stone, but seems healthy and an annual bearer on rich flats or slopes. The Jonathan also requires good soil, and the Winesap does not grow large enough on poor soil. The Lubsk Queen grown in Wisconsin are very beautiful and sell in Chicago at the highest price of any apple. Lubsk Queen sold for beauty bring ten dollars a bbl. but without their beauty would be nothing. They should be planted only where they will grow beautiful.

The Wolf River is sold only to restaurants for a *baker*. A limited supply finds a good market. The selling rating is based not alone on higher price than other apples but also on the fact of demand for them.

Cranberry Growers Meet.

The 28th annual meeting of the Wisconsin State Cranberry Growers Assn. will be held in Grand Rapids Tuesday, Jan. 12, 1915, in the Council Rooms West Side at 9:30 a. m. These meetings are always of interest and bring out many valuable facts and a cordial invitation is extended to every one at all interested to attend.

Planning the Home Garden.

Blanchard Harper.

January is not only the time to plan for the home garden but also the time to order one's seeds. Two years ago the writer found it impossible in March to secure seeds of certain varieties desired, as the supply was exhausted. If one cannot complete one's full list at once it is advisable to write ahead to ask the seedsman to reserve the required quantity of such varieties as are their specialties.

For a beginner to plan the planting of a vegetable or flower garden is a very puzzling problem. The way one beginner worked was to draw as accurately as possible an outline in the scale of $\frac{1}{8}$ inch to the foot of the vegetable garden, and the beds or borders for flowers each separately and later combined and put in all permanent plantings. That done proceed to mark in lines for each variety desired, spaced according to specifications under its respective heading in any reliable catalogue. As for quantities so much depends upon the individual tastes of the family, the size and ages of its members that only experience will tell what each particular family needs.

Cut down to a few plants such things as mint, parsley, dill, tarragon, etc. If space is very small make intensive culture of individual plants compensate for numbers.

It is astonishing to find how soon the space fills up.

A small family garden should omit such space requiring vegetables as potatoes, cabbages, running squash—and further, if very small, green corn, lima beans. The desirable vegetables for a very small garden should be chosen with a view to continual cropping or quick maturity and replanting.

A good assortment is green peas (dwarf), lettuce, radishes, Swiss-chard, beets, string beans (bush), tomatoes and cucumbers trained

to stakes or trellis, endive, parsley, sweet peppers, turnips, carrots, onions, sets and seed.

It is a good plan to put such things as parsley, mint, sage, tarragon, etc., in little nooks one foot by two or larger by the side of the house or between large shrubs.

Remedies for Potash Shortage.

H. A. Huston.

Various suggestions have been made in regard to the steps to be taken by farmers in reference to the shortage of Potash in their fertilizers, caused by the greatly reduced shipments of Potash from Germany since the First of August. Most of the fertilizer companies have endeavored to make the Potash on hand go as far as possible by selling for the present brands of complete fertilizers containing only 2 or 3 per cent of Potash and withholding from sale brands containing larger amounts.

The suggestion that some or all of the Potash be replaced by phosphoric acid is absurd, for every school boy knows that one plant food cannot take the place of another. There are some indirect fertilizers, such as lime, gypsum and salt that can release a limited amount of Potash from some soils that contain hydrated silicates of Alumina and Potash. But if these soils have already been treated with lime or have received repeated dressings of the usual forms of fertilizer containing soluble phosphate with its accompanying gypsum, then the Potash in the hydrated silicates has to a large extent already been replaced and the use of more lime or gypsum or salt could not be expected to release much additional Potash. Ground limestone or oyster shells act too slowly to be used as Potash releasers.

The residue of soda left in the soil by nitrate of soda is more effective in releasing Potash than is gypsum and hence goods, in which the nitrogen is largely in the form of nitrate of soda, may have a

special value in the present emergency.

It is often stated that decaying organic matter releases Potash from the soil but there seems to be no direct evidence of this. On the contrary, Dr. S. Peacock states in the American Fertilizer of Sept. 5, 1914, "Several thoroughly competent researches have shown that decaying organic matter has little effect on converting inert mineral plant food in the soil into available form."

In any soil the amount of Potash capable of being released by these indirect means is a very small fraction of the total Potash in the soil, most of which exists in a form about as soluble as window glass. There is no known profitable method for rendering this inert Potash of the soil available fast enough to provide for profitable crops. Whatever temporary expedients we may employ in the present emergency, we must keep in mind that the Potash thus removed from the semi-available soil reserves must later be replaced if we are to maintain the soil's productiveness.

There is danger in the statement that farmers have been using an excess of Potash. Crops use on the average about two and one half times as much Potash as phosphoric acid, while the average fertilizer sold contains only half as much Potash as phosphoric acid; yet no one claims that we are using too much phosphoric acid. The Potash remaining from previous fertilization is practically nothing except in the limited areas where a ton or more of fertilizer has been used per acre on truck crops. Very rarely is half as much Potash applied to the wheat, oats, corn or cotton crop as the crop removes.

The Potash mines are so numerous and the stocks on hand so large that supplies can be promptly sent forward, as soon as European conditions permit freight shipments to be resumed.

Sod Mulch For Orchards.

F. P. Vergon of Ohio is the owner of a large apple orchard which is in blue grass sod, the trees mulched each season with hay cut from the rows.

A writer in the Country Gentleman of April, 18th quotes Mr. Vergon as follows:

"Go into an orchard with a big plow and cut your tree roots off! Do you call that benefitting an orchard? I think some of these professors don't know what they're talking about, and they their don't seem very anxious to learn either."

"Nature's a pretty good teacher if we've just got sense enough to follow her. If I'd had a course in horticulture I mightn't have been able to see; as it was Nature taught me."

Concerning this and other arguments brought out in the article mentioned the editor of Better Fruit had this to say:—

The Country Gentleman of April 18 contains a very interesting description of the sod mulch system of orchard management as practiced by Vergon and Ballou of Ohio, Hitchings of New York and Funk of Pennsylvania. The writer, J. Russell Smith, presuming upon the success of the sod mulch system achieved by the gentlemen named, would make it appear that the system was really the ideal one, and that it was fundamental as against the cultural mulch system.

In the first place, the sod mulch system as practiced by the gentlemen named by Mr. Smith, is conducted upon the very highest plane of sod mulch efficiency. Secondly, none of the parties named by Mr. Smith could practice a cultural mulch system to as good advantage as they can the sod mulch system. I know Dr. Funk of Pennsylvania could not because the hills are too steep, there would be no end to the washing soil if a cultural system were practiced.

From the description given of

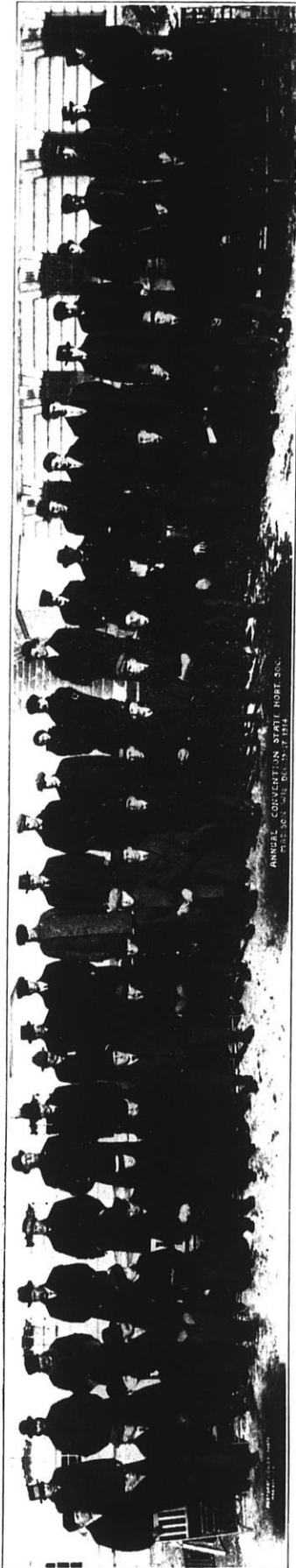
the Vergon orchards in Ohio, the same would be true, and there are thousands of similar situations throughout the country. In fact, the hill and mountain lands found in most states could be devoted to apple production more profitably than most any other crop, providing an intensive sod mulch system were practiced.

Conditions and environment should control in the management of any crop. Ideas or fundamentals must give place to conditions, although the fundamental should be given first place whenever and wherever it is possible. The question then is: Which is the fundamental system of orchard management, the sod mulch system or the cultural system? The distinctive sod system is not fundamental in any sense of the term, and therefore cannot be considered.

All fruit trees make their wood growth and buds for the following year's crop in the first half of the previous year to the crop. This is vital because it admits of the proper maturing of the wood and buds in the last half of the year. Were it not for this wise provision of nature, fruit growing would be such a hazardous business that few would care to engage in it, and this healthful and inspiring occupation would find few followers.

A tree, however, does more than simply grow its wood and buds the first half of the year which is just as vital, viz: it stores up within itself by the assimilation of plant food given it, the vital energy necessary to develop and mature its crop of fruit from blossom to the perfectly matured luscious fruit. True, these elements must be in the soil in available form so the tree can draw upon the elements as required aside from such as it has already made use of for its necessary vigor.

The question then arises: Which method of management gives the tree its best environment by which



it will receive the largest opportunity of benefit, the sod mulch or the cultural mulch systems, which comes the nearest in fulfilling nature's requirements is the system which is fundamental, all experiences of isolated cases and opinions of theorists to the contrary.

A sod mulch system means, if it means anything at all, that the mulch must be grown upon the orchard. There is scarcely a so-called commercial apple orchard in the United States today where it would be practical or profitable to haul the mulch from without. Hence to grow it on the orchard means that moisture and plant food will be required in addition to that needed to grow the tree's wood and buds, besides such as will be required to develop and mature the crop of fruit.

Grass or mulch crops grow earlier, more rapidly, and uses plant food and moisture more rapidly than trees, hence growing the mulch when the tree needs all the moisture and plant food it can get, is hurtful to the tree, and while plant food can be supplied artificially, moisture cannot upon average conditions.

For these very reasons the sod mulch system is neither ideal or fundamental because it does not meet nature's requirements. We must not be understood to say that a mulch system does not supply moisture and plant food, but we want to be understood to say that it does not do this at a time when the tree needs these the most. The sod mulch system gives its maximum of benefits at the season when the tree needs it the least, namely, the ripening period.

The cultural mulch system reverses the order and gives the tree its maximum needs at the time when it is the most necessary to have them. The benefits derived by culture, viz: the conservation of moisture, the creation of soil, the elimination and making available mineral plant food and securing proper physical soil

conditions are so well known that they need not be defined here. Remember, these necessary things are accomplished when the tree and crop must have them, the first half of the year; sowing and growing the legume crop the middle and last half of the year does not affect the tree and crop so far as the maturing of the crop is concerned, because unless the tree and crop on it has had all the stored-up energy required to mature the crop stored up within itself or in the soil as a reservoir from which to draw by the time ripening crop requires it, no system of mulching known to man will supply it at that time.

The fact is, the cultural mulch system is the only proven fundamental system of orcharding, and should be practiced wherever locations permit. The results of those who have reached the highest point of success by their special location for it, and their particular ability in succeeding in any line of endeavor should not be set up as being fundamental in any particular, and we therefore believe that the claims of Mr. Smith in his article in *The Country Gentleman* referred to, are not correct, and if followed by those whose system will permit the cultural mulch system, they will suffer.

The orchard proposition is too important to have such views promulgated as basic. If Mr. Smith were to study at first hands the cultural mulch system from the large commercial orchardists of the country who are practicing the system just as intelligently, just as intensely and just as successfully as Hitchens, Vergon, Ballow and Funk are practicing the sod mulch system, he would probably have another story to tell.

For officers and executive committee for 1915 see column 1, page 8.

Potted Plants for the Living Room.

Many lovers of flowers who have not the time to bother with an indoor window-box, enjoy keeping a number of potted plants in the living room during the winter. Some, in fact, have turned a bay window into a small conservatory or winter garden merely by an attractive arrangement of plants in separate pots. When a window-box is filled, the plants must be of the same general character to be successful, but if one's winter garden is made up of plants in separate pots a greater variety may be kept, as each plant may receive different treatment in the matter of light, watering, soil, etc., and palms, rubber plants, and cacti, which call for special handling, may be added. Begonias, ivy, smilax, and *aspidistra*, all good plants for indoor culture, demand more or less the same treatment, as was explained in a previous article sent out by the U. S. Department of Agriculture, describing the indoor window-box.

Potted plants should be examined occasionally to see whether or not the plant requires repotting. This is done by holding the hands over the top of the pot, inverting plant and all, tapping the edge of the pot so as to loosen it, then lifting the pot off. This cannot be done unless the soil is moderately moist. If the ball of earth is completely covered with roots, the plant should be put in a slightly larger pot with new potting soil "firmed" about the old ball of earth by "firming" with the fingers. Then wet thoroughly.

A housewife who desires a few potted plants but does not possess the regulation flower pots, may prepare tin cans that will be quite satisfactory. A small hole should be made in the bottom of the can and a piece of broken crockery or a few stones put in the bottom of the can before the earth is

added, in order to give the proper drainage. The stones or crockery should be also used in the regular flower pot.

Geraniums: If geraniums are potted so that the root growth is restricted, and if they are kept fairly dry, they may be forced to bloom during the winter. Geraniums are attractive in the ordinary window-box because of their foliage alone. They should not be placed in a window-box with the expectation that they will bear flowers.

Ferns: Ferns as they come from the florists prepared for indoor culture should be placed in a strong light, though they grow well without sunlight. They should be watered sparingly but should be kept moist at all times. Improper watering, especially keeping the plant soaked or permitting it to get dry, is the foundation of most fern difficulties. It is especially difficult not to overwater when the fern is in a jardiniere, where drainage is necessarily poor. In spring and summer they will require three times the water necessary in fall and winter.

It is well occasionally to put them in the bath tub and give them a bath with weak soap suds made from a good grade of soap. The soap must be thoroughly rinsed off immediately. Great care must be exercised not to injure the fronds as they are very tender. Mealy bug is one of the worst enemies in house culture. This is a white wooly insect that works close to the bottom of the fronds. If found, the plant should be examined every day and all insects removed by a splint or tooth pick. If the pest is very bad, cut off all the top of the fern within an inch of the ground, treat thoroughly each day till all insects are exterminated when a new top can be grown.

Red spider is a minute sucking insect that thrives in a dry atmosphere. It can be kept in check by spraying the top with clear

water. In living rooms this is frequently impracticable. The next best thing is repeated baths. The aphid or green fly is also eradicated by washing.

Ferns should be fed once in two to four weeks in the place of ordinary watering with dilute nitrate of soda, (a heaping teaspoonful to a quart of water) ammonia water (a teaspoonful of ammonia to a quart) or manure leachings. Prepared plant food or a little sprinkling of ground bone and wood ashes also gives satisfaction. *U. S. Dept. of Agr.*

More About the Forest Apple.

"I was interested in the article, in the December number of Wisconsin Horticulture, on the Forest Apple. We have been growing the Forest apple here since 1891, having obtained it from Iowa Agricultural College, and I understand they received it from T. K. Phoenix, Delevan, Wisconsin. This apple has done well here, and has proved to be one of the hardiest winter apples. The quality is all that could be desired, but its weak point is that it is not sufficiently attractive in appearance for a good commercial apple, as it grows with us.

I thought you might be interested in having our experience with this apple. I may say further that we have used it in our hybridization work, and hope to obtain some of its good qualities in the crosses."

Yours very truly,

W. T. Macoun,

Dominion Horticulturist,
Central Experimental Farm, Ottawa, Canada.

Correction Dec. No. p. 56, middle column

Cranberry Jelly
Salad of Cabbage, Celery, Sweet Peppers and Onions
Sour Cream Dressing

B. H.

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.

Entered as second class matter May 21, 1912, at the postoffice at Madison, Wisconsin, under the Act of March 3, 1879.

Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of Wisconsin Horticulture. Remit fifty cents to Frederic Cranfield, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and paid for two years. Personal checks accepted.

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bill for two years. Never lost one yet.

F. Cranfield,
 Secretary.

A "Hand Out."

As a rule I feel that we ought, as a Society, to shape our own destiny, to lead rather than follow but when the other fellow has something really worth while I think we ought to appropriate it, with due acknowledgement.

For instance the Minnesota Society has about 3,500 members while we have about one half that number.

For years I have tried to discover the secrets, for there must be more than one, of their membership and now I believe I have uncovered one. Every member has a hand out all the time. "Are you a member of the State Horticultural Society?" "You ought to belong, *hand me a dollar* and I will make you a member."

Every member has that little piece by heart and keeps his hand out all the time. Let's try it in Wisconsin. Just say "Give me half a dollar and I will make you a member" or, "Give me a dollar and I will fix you up for two years." Try it.

F. Cranfield.

Just a Few Words.

Not using much good ink and paper in telling about what happened at the Convention for those who were enough interested to attend got more than can be told in a few lines while such an account as could be given here would not be any satisfaction to the ones who stayed at home.

Every number was excellent, no exceptions. The papers on Fruit Growing in Wisconsin delivered at the Wednesday afternoon session out at the Agr. College were unlike any ever before given at our convention and were very highly appreciated except by a few chronic grumblers.

The program presented by the Madison Society Wednesday evening will not soon be forgotten.

And in this way each and every number and session might be mentioned but it profits no one. In another column in this issue a few brickbats and bouquets are offered. Take your choice.

Convention Brickbats and Bouquets.

Bouquet: "The program was fine; it touched every side of horticulture."

Brickbat: There wasn't enough of any one thing to make it worth while. No one interested in fruit could afford to spend a week for less than one half day on commercial fruit growing.

Bqt.: "Mr. Townsend's talk on varieties was worth the cost of the convention."

Bat.: "Seems too bad we can't have a convention program without having all the professors from the university on it."

Bqt.: "The Thursday afternoon (all College) session was best of all."

Bat.: "A great bunch of boosters." (Wednesday afternoon.)

Bqt.: The most interesting session of all."

Bat.: "Why didn't we have a banquet?"

Bqt.: "The Wednesday evening program was worth a dozen banquets."

Profitable City Gardens.

Experience in the *family gardens* of the Madison Garden Assn. has shown that excepting potatoes a garden 60 ft. x 60 ft. is sufficient, when well cared for to supply not only almost all the vegetables required by the ordinary family but give a surplus for sale or for canning. In some cases these family gardens were worked by children, with occasional assistance from others.

Growing Small Fruits.

PROF. C. V. HOLSINGER,

Milwaukee Co. School of Agriculture.

The subject of small fruit growing as I will discuss it will be largely the result of my own experiences and observation, and particularly with the strawberry. My experience was gained under different climatic conditions, but I find that the same principles will give similar results in both places. Horticulturally speaking, we did not believe in carrying all our eggs in one basket. We believed that it pays when one is growing fruit, to plan the work so that the season of marketing will extend over the most of the summer and fall, and with this thought in mind we raised the following crops: Asparagus, pie-plant, strawberries, raspberries (both red and black), gooseberries, currants, blackberries, grapes, peaches, and apples.

Of course, there were seasons in which much of the prospective crop was destroyed by cold weather in winter, spring frosts and sometimes hail, and in such cases we helped out our bank account by the growing of some truck crops, such as tomatoes, sweet corn, etc.; the growing of asparagus we found was a very profitable crop, and of this we had some four acres. Our gross sales would return us from \$400 to \$800 per A. It had this objection though that it required a vast amount of attention at a time when we could least afford it, viz., at planting time in the spring of the year.

I feel safe in saying, all things considered, that there is no other fruit quite so popular, and so universally grown as the strawberry, for one will find it thriving in almost every section from the Gulf to Canada and from the Atlantic to the Pacific. It will grow on almost every kind of soil. We grew it on a wet sour soil in the valley where the water table was but a few feet below the surface of the

soil. We also grew it on upland lime stone soil, where it gave equally good results. I do not wish to convey impression that the same varieties were used in each case. Only one or two varieties that we grew did equally well on bottom or upland.

Each grower will have to decide for himself those varieties that are best suited to his condition and the amateur cannot do better than to take the advice of members of experience in the Horticultural Society and then try out on a limited scale a number of the leading varieties recommended. Varieties that do well one season will not necessarily do well the succeeding season, therefore, it behooves the beginner to plant somewhat cautiously.

After the grower has made up his mind what variety he wishes to cultivate he should make it his business to grow his own plants as far as possible. At first we used to select the plants in the fruiting bed taking them out along the middle between the rows, but we soon got over this method finding it best to dig up the whole row or as many as we needed for the new field. We tried both spring and fall planting but the latter did not give us good results so we planted in the spring time as early as the weather would permit doing our best to get the plants in the ground while still in the dormant condition. I might say that before putting out the plants we found it desirable to plan ahead of time at least one year in preparing the land. Usually corn land will produce good strawberries without the addition of much fertilizer.

Getting the land in good cultural conditions is money well spent. If the land had been in corn previously, all stalks and trash were removed, the land plowed in the fall and again in the spring followed by the disk and then the drag. The smaller clods were cared for by a float so that the field was in the condition fit for a garden.

The transplanting was done in

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**NURSERIES AT
WATERLOO, WISCONSIN**

a number of ways but generally by hand. We have used transplanting machines, a slotting machine (a machine constructed in such a way that it would open a deep narrow trench) and by the use of a spade. The latter method is somewhat crude and slow but I think the best stands of plants were so obtained. A line was stretched across the field, then when ready, a man with spade walking backwards and inserting the spade at a sharp angle raises up the spade perpendicularly without withdrawing it. A boy for the purpose places the plant in position. The spade is then withdrawn and the earth is allowed to fall back on the roots of the plant. Should the plant be placed below the surface, it can be drawn up to the desired position. Then the ground is made firm by tramping. The advantages is this,—that there is a better chance for spreading out the roots, the plant is in the desired position and moist earth comes in contact with the roots. However, I would not recommend this system where large acreages are to be planted.

As quickly as the field is planted we run the weeder over the field to loosen up the soil that was compacted by tramping. Then cultivate it once a week or after each rain. We also used the hoe at frequent intervals. Clean culture was absolutely necessary. In order to reduce the cost of hand cultivation we sometimes planted in squares so that we could run the cultivator both ways. In such cases we had to use prolific plant makers viz., Warfield, Dunlap, etc., and planted 30 inches in the row. Care must be used to see that any plants that fail to grow are promptly replaced, otherwise there will be vacant spaces in the field. We kept off runners till July 1st, and after that time cultivated only one way.

Mulching. There are but few sections where it does not pay to cover the plantation with a mulch of wheat or oat straw, marsh hay or other material. We did this usually in the early winter as soon as

the ground was frozen hard enough to drive over without cutting through. Our mulching material was wheat straw usually. If it could be had oat straw was preferred. Any mulching material should be free from grain and weed seeds. The former is just as bad as the latter if not worse. On one or two occasions, I have seen fields ruined by the grain that sprouted during an open winter and came up so thick as to crowd out the plants. Pulling out the wheat by hand was resorted to but the cost was very high.

The diseases of the plants are not very severe usually. Sometimes the leaf spot will do much damage on low wet ground, particularly in season of excessive rainfall. Our plantation was located on bottom land and in some parts of the field the water table was near the surface. Most of the field was devoted to the Parker Earle variety, which gave us splendid results for a number of years, or as long as the seasons remained normal. This condition was followed by a very wet season and the leaf spot developed rapidly. It ultimately become so severe that practically the whole plantation had to be abandoned. We tried the use of Bordeaux a number of times but were not very successful in combating it. I think though, that much of our failure was due to our inexperience at that time concerning the disease and best method of combating it. I am sure that the disease can be controlled by the proper use of fungicides.

If it is desirable to maintain the plantation longer than one year, and the disease has gained a foothold, firing the plantation at the close of the picking season will eradicate much of the disease. This should be done on a windy day when the mulch is quite dry, so that the fire will pass quickly over the patch. On one occasion fire was accidentally started in the plantation, and burned off the mulch in two large loops ere it was

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wiped out. This happened in the spring just before the blossoms had pushed up. As we had mulched quite heavily, we thought there would be a total loss of fruit over the burned area. However, the result was quite different from our expectation. A new growth of leaves put out which was free from leaf spot and about all the fruit harvested in that field that season was secured on the burned area. This happened the season already referred to in which the disease was so destructive.

The growing of the fruit as has been stated by many is really only half the battle, the fellow who can market to good advantage, and who can grow good fruit will always be successful. Our method was not different from that practiced by many other growers. We found it to our advantage to pack the berries in clean boxes and crates and to get the fruit to market, it not being necessary to ship at any time. Pickers were provided with carrying trays containing 6 quart boxes, and such sorting as was necessary was generally done in the field. The small under-sized fruit we had picked in separate boxes, not because they were valuable, but to prevent pickers placing them in boxes with the good fruit that should be picked. These second class berries we sold to pickers or anybody who might desire that class of fruit for anything we could get. If we got the cost of picking out of such fruit we felt pretty well satisfied. At the receiving shed, which was always located at a convenient place in the field, parties were stationed who received the fruit as fast as it was brought in. After the fruit was inspected, credit was given to the picker and the fruit if up to standard placed in the crate. Ultimately the fruit was sold on the local market to dealers in lots of one or more crates. No effort was made to sell retail.

Following the strawberry, came cherries, gooseberries, black and

red raspberries, black berries, grapes and the orchard fruits, but that is another story.

More Potash Coming

American crops and soils are still as hungry for Potash as before the outbreak of the European War, which curtailed the Potash shipments.

Some of the Fertilizer Companies are trying to induce farmers to buy the one-sided low Potash or no Potash fertilizers of a generation ago. This means a fertilizer that is profitable to the manufacturer, but not the best for the farmer. When the Syndicate in 1910 started the direct sales of Potash to dealers and farmers at reasonable prices, Potash sales increased 65 per cent. in one year, a clear proof that farmers know that Potash Pays. They know that Potash gives good yields, good quality and resistance to plant diseases.

Many of the Fertilizer Manufacturers are willing to meet the farmer's wishes and sell him what he thinks he needs. These manufacturers are now willing to furnish as much Potash as they can secure. They offer goods with 5 per cent. and even in some cases 10 per cent. Potash, if the farmers insist on it.

Shipping conditions are improving, more Potash is coming forward although the costs of production and transportation are higher. The higher price of fertilizers is not due wholly to the slightly higher cost of Potash. Much of the Potash that will be used in next spring's fertilizer had reached America before the war started.

There is no substitute for Potash.

We can no more return to the fertilizer of twenty years ago than we can return to the inefficient farm implements or unprofitable livestock of that period.

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The following premiums were awarded at the Annual Convention held at Madison Dec. 15 16-17, 1914.

Fruit.

Best collection apples, not less than 15 varieties: 1st D. E. Bingham; 2nd G. H. Townsend; 3rd L. E. Montgomery; 4th J. S. Palmer.

Best 5 Plates (5 varieties) commercial apples for Wisconsin: 1st D. E. Bingham; 2nd G. H. Townsend; 3rd L. E. Montgomery; 4th A. D. Brown.

Best Plate Ben Davis: 1st L. E. Montgomery; 2nd Theo. J. Kurtz; 3rd G. H. Townsend; 4th H. R. Holand, Ephraim.

Best Plate Dudley: 1st A. H. Wilkinson; 2nd John Walters.

Best Plate Fameuse: 1st G. H. Townsend; 2nd L. E. Montgomery; 3rd W. I. Lawrence; 4th Theo. J. Kurtz.

Best Plate Gano: 1st W. I. Lawrence; 2nd John Walters; 3rd D. E. Bingham.

Best Plate Gem: 1st A. D. Brown; 2nd A. K. Bassett.

Best Plate Gideon: 1st J. H. Deniston; 2nd John Walters.

Best Plate Golden Russett: 1st Theo. J. Kurtz; 2nd W. I. Lawrence; 3rd J. S. Palmer; 4th John Walters.

Best Plate Grimes Golden: 1st L. E. Montgomery; 2nd D. E. Bingham.

Best Plate Jonathan: 1st G. H. Townsend.

Best Plate King: 1st D. E. Bingham; 2nd W. I. Lawrence; 3rd G. H. Townsend.

Best Plate Longfield: 1st A. D. Brown; 2nd J. Walters.

Best Plate Malinda: 1st J. Walters; 2nd D. E. Bingham; 3rd A. K. Bassett.

Best Plate McIntosh: 1st W. I. Lawrence; 2nd D. E. Bingham; 3rd J. Walters; 4th L. E. Montgomery.

Best Plate MaMahan: 1st L. E. Montgomery; 2nd G. H. Town-

send; 3rd A. D. Brown; 4th J. S. Palmer.

Best Plate Newell: 1st G. H. Townsend; 2nd H. C. Melcher; 3rd J. S. Palmer; 4th A. D. Brown.

Best Plate Northern Spy: 1st G. H. Townsend; 2nd Theo. J. Kurtz; 3rd H. R. Holand; 4th J. S. Palmer.

Best Plate Northwestern Greening: 1st G. H. Townsend; 2nd A. D. Brown; 3rd J. S. Palmer; 4th H. R. Holand.

Best Plate Patten: 1st L. E. Montgomery.

Best Plate Pewaukee: 1st J. S. Palmer; 2nd A. K. Bassett; 3rd G. H. Townsend; 4th D. E. Bingham.

Best Plate Plumb Cider: 1st N. A. Rasmussen; 2nd L. E. Montgomery.

Best Plate Salome: 1st H. C. Melcher; 2nd A. K. Bassett.

Best Plate Seek-no-Further: 1st D. E. Bingham; 2nd J. S. Palmer; 3rd A. K. Bassett; 4th H. C. Melcher.

Best Plate Tolman: 1st D. E. Bingham; 2nd W. I. Lawrence; 3rd J. S. Palmer; 4th J. Walters.

Best Plate Utter: 1st D. E. Bingham; 2nd L. E. Montgomery.

Best Plate Wealthy: 1st F. V. Holston; 2nd J. Walters; 3rd L. E. Montgomery; 4th A. D. Brown.

Best Plate Windsor: 1st G. H. Townsend; 2nd D. E. Bingham; 3rd H. R. Holand; 4th J. S. Palmer.

Best Plate Wolf River: 1st L. E. Montgomery; 2nd J. S. Palmer; 3rd W. I. Lawrence; 4th J. Walters.

Best Plate York Imperial: 1st H. R. Holand; 2nd D. E. Bingham.

Best Plate Boiken: 1st J. S. Palmer; 2nd L. E. Montgomery; 3rd D. E. Bingham; 4th W. I. Lawrence.

Best Peck Fameuse: 1st H. C. Melcher; 2nd T. J. Kurtz; 3rd H. Townsend.

Best Peck Gano: 1st J. Walters; 2nd W. I. Lawrence; 3rd D. E. Bingham.

Best Peck Gem: 1st A. D. Brown.

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Best Peck King: 1st D. E. Bingham.

Best Peck McIntosh: 1st W. I. Lawrence; 2nd D. E. Bingham.

Best Peck McMahan: 1st L. E. Montgomery; 2nd G. H. Townsend; 3rd A. D. Brown.

Best Peck Northwestern Greening: 1st L. E. Montgomery; 2nd W. I. Lawrence; 3rd D. E. Bingham.

Best Peck Tolman: 1st W. I. Lawrence; 2nd D. E. Bingham; 3rd L. E. Montgomery.

Best Peck Wealthy: 1st L. E. Montgomery.

Best Peck Windsor: 1st G. H. Townsend; 2nd D. E. Bingham.

Best Peck Wolf River: 1st L. E. Montgomery; 2nd W. I. Lawrence; 3rd John Hagberg.

Best Exhibit Crabs: 1st F. Kern; 2nd L. E. Montgomery; 3rd N. A. Rasmussen.

Best Seedling Apple: 1st A. D. Brown; 2nd T. J. Kurtz.

Vegetables.

Best Collection not less than 10 entries: 1st A. K. Bassett; 2nd L. L. Aspinwall; 3rd N. A. Rasmussen.

Turnip Beets: 1st A. K. Bassett; 2nd L. L. Aspinwall; 3rd N. A. Rasmussen.

Round Turnips: 1st L. L. Aspinwall; 2nd N. A. Rasmussen; 3rd A. K. Bassett.

Rutabagas: 1st N. A. Rasmussen; 2nd L. L. Aspinwall; 3rd A. K. Bassett.

Chantenay Carrots: 1st Christensen & Davis; 2nd A. K. Bassett; 3rd N. A. Rasmussen.

Short Horn Carrots: 1st E. L. Roloff; 2nd N. A. Rasmussen; 3rd L. L. Aspinwall.

Salsify: 1st L. L. Aspinwall; 2nd E. L. Roloff; 3rd A. K. Bassett.

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By extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

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For the first three years a tree can stand no great drawbacks, and is governed by Nature's laws, the same as animal life; it must start out with a constitution if it is ever to make a vigorous fruit-bearing tree.

It is an acknowledged fact that trees grown in the Lake Ontario region of Western New York have withstood the test of years, and when transplanted to every state in the Union have proved of unsurpassed vitality, and given good satisfaction to the purchaser. The soil is specially adapted to tree-growing, and the first thing noticeable to a stranger is the thrifty appearance and fruit-bearing qualities of the trees in this locality. Added to the advantage of soil comes the climate, and in no place within our knowledge is the temperature so even or the sun so obscured in winter. The tender tree is never subjected to those sudden and rapid changes caused by bright, warm days, so prevalent in some sections, and which will start sap in February or March, oftentimes to be checked in a few hours by zero weather—and before the young tree has arrived at the age to withstand these reverses, it has become sickly and stunted.

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Red Cabbage: 1st N. A. Rasmussen; 2nd L. L. Aspinwall; 3rd E. L. Roloff.

Pop Corn: 1st N. A. Rasmussen; 2nd L. B. Irish; 3rd W. J. Platten.

Red Onions: 1st F. Kern; 2nd L. L. Aspinwall; 3rd N. A. Rasmussen.

Yellow Danvers Onions: 1st L. L. Aspinwall; 2nd Christensen & Davis; 3rd N. A. Rasmussen.

White Onions: 1st N. A. Rasmussen; 2nd L. L. Aspinwall; 3rd Christensen & Davis.

Gibraltar Onions: 1st N. A. Rasmussen; 2nd Christensen & Davis.

Winter Radishes: 1st A. K. Bassett; 2nd N. A. Rasmussen.

Parsnips: 1st N. A. Rasmussen; 2nd L. L. Aspinwall; 3rd A. K. Bassett.

Peppers: 1st Christensen & Davis; 2nd N. A. Rasmussen.

Celery: 1st A. K. Bassett; 2nd E. L. Roloff.

Hubbard Squash: 1st E. L. Roloff.

Squash any other variety: 1st E. L. Roloff.

Your Garden and My Garden.

Did your garden pay this last summer? Were you satisfied with it? How much did you get out of it? Did you keep an account of the expenditure, for seeds, manure, and labor? Have you balanced against it all that went on your table, into your cans in your storeroom, and the sand boxes in your cellar? I did not keep an account of all that went into and came out of my garden, because I was so busy taking care of the produce that I had no time to stop for accounts; but here are a few items **pro** and **con**:

My vegetable garden measures about seventy-five by fifty-five feet. The ploughing, dragging, and raking cost \$2.35; manure \$3.00; seeds \$4.00 (with a super-

abundance left over and given away). Now I got more lettuce than I could use for myself and the chickens had a liberal supply. Peas I ate every day until the drouth dried up the last two varieties, but I had already canned a supply for the winter, and gave away half a bushel or more. Beets were planted for myself and an extra row for the chickens. I used all I wanted, canned half a dozen cans and fed

the chickens with the thinnings and put four bushels in sand in the cellar for the chickens. String beans I do not care for when I can have peas, so left mine to rot on the vines. Lima beans suffered from the drouth, but yielded a number of delicious meals, and half a dozen $\frac{3}{4}$ pt. cans for winter. Late fall lettuce was eaten by the sparrows as soon as it came up and so did not grow. Tomatoes, eighteen

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Stark City, Mo.

plants, bore loads, ate them every day, gave them away, canned all I can use, and put a bushel and a half of green ones in the cellar. Late string beans furnished two messes and on October 10th half a bushel for canning. Turnips did well but were overshadowed in my regard by better things, as were carrots, but these last are stored, one bushel, in sand in the cellar. Parsnips one and a half bushels, salsify half a bushel, onions did poorly on account of the drouth. Celery is stored in cellar where it will finish bleaching and furnish me about seventy-five to eighty plants. Cauliflower gave me six heads from a dozen plants, given to me. Egg plants succumbed to the cold weather in June. Early cabbage one dozen heads. Late cabbage planted late and set out about August 1st where the peas had been pulled up, did not have time to mature, but gave me a wheel barrow heaped up full. Cucumbers, six hills, were prolific but gave one or two a day for a long season. Summer squash, two hills, bore well. Small asparagus bed four years old about six pounds. Sweet peppers nearly a bushel. Parsley only twelve plants set out: dried a lot, lifted three large plants to pick during winter, and gave the rest to friends. Cora suffered from the drouth, indeed it burned, but I got half a dozen cans, and a number of good meals from the early varieties. Swiss chard planted in the early spring if constantly kept picked will furnish nice tender greens until snow-fall. Mine has yielded bushels which have not only supplied the chickens with greens all summer, but supplied me and my friends. I have made it a point when cooking greens to cook three or four times as much as I need for a meal, reserve what I want and can the rest.

Do you think my garden paid?

B. H.

Orchard and Garden Notes.

December 15-22.

Prepare flats and boxes for transplanting next spring.

Perennial onions should be mulched with strawy manure or leaves.

It is almost impossible to get too much manure on the asparagus or rhubarb plantations.

Squash should be stored in a warm, dry place. They will decay quickly if allowed to become moist.

The Japanese snowball, *Viburnum tomentosum plicatum*, is a desirable shrub for the lawn in many locations.

Wood ashes make a good fertilizer for the strawberry bed or orchard. Apply about 20 bushels to the acre.

One of the oldest trees in America, at Ravenna Park, Seattle, Wash., is dead. It is a fir tree 180 feet tall with a diameter of 20 feet

and a circumference of 58 feet. It is supposed to be 1,800 or 2,000 years old.

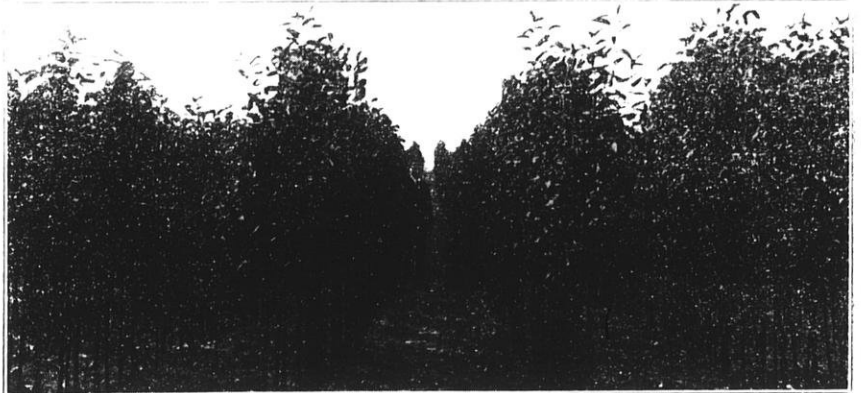
Bulletin 175 of the Illinois Experiment Station, Urbana, Illinois, has some interesting information for the onion-grower. Send for it.

Many forms of the *Pelargonium* can be grown to advantage in the house. The scented leaves of the rose geranium are especially pleasing.

As soon as snow falls, hang out suet and other food for the birds. They will appreciate it and in watching them you will be well repaid for your trouble.

Berried *Solanums* make excellent house plants at this time of the year. Among the best are the Jerusalem cherry and Chinese lantern plant. Their bright fruits add Christmas cheer. They may be planted like peppers in the

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We have over one hundred thousand No. 1 Apple trees just like the ones shown above. Write us for prices before you place your order for trees. We are the largest growers of apple trees in the state, we are confident we have the stock to suit you and will be pleased to figure on your wants.

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Personal and confidential: The photo that I am enclosing shows my faithful dog Jack in the background. This is a trade-mark no other nurseryman can use for he never would be found in any other nursery. I don't believe a better block of apple trees was ever grown in Wisconsin. Don't they look it?—M. F. F.

spring and lifted from the ground late in autumn. Some of the common peppers are also good.

When purchasing a flowering houseplant, choose one that is stocky, not tender and weak, and that is just beginning to blossom. Plants in bud are more easily shipped and will remain attractive longer than those in full flower.

A flowering plant needs plenty of water as a rule, much more when flowering than at any other stage of growth. If it is removed from a greenhouse to a home living-room, special attention should be given to watering it, since the air of the room is much drier than that of the greenhouse.

Now is a good time to make bird houses for next season's use. Try scattering a few of these about the premises and enjoy the neighbors that will move into them. One of the most pleasing songsters, that may easily be attracted to a home near the house, is the wren. A very small opening should be made in its house to prevent other birds from using it.—LeRoy Cady, Associate Horticulturist, University Farm, St. Paul.

Storing Canna Bulbs.

A member asks about storing canna bulbs. Canna bulbs may be stored with the potatoes in the cellar both requiring the same conditions of heat and moisture. I have had best success with lifting them late in the fall before heavy frosts and transferring to the cellar with as large a lump of earth as possible, leaving this block of earth and roots intact until spring. In this way the bulbs do not dry and shrivel as they would if removed and stored in sacks or boxes. The bulbs must not be allowed to freeze as this will ruin them. In the spring they may be divided into single "crowns." The average large clump of canna will make from

six to a dozen plants. Strictly speaking the canna is not a bulb at all but an enlarged root which will continue to grow throughout the year if provided with heat and moisture. Many greenhouses keep the canna roots growing throughout the winter.

F. C.

Feed Your Garden.

Would you expect a hired man to do good work if you starved him? Why should your garden do more if you starve it? One 60x75 ft. garden which was originally poor putty-like clay soil, yields well on an annual diet of

four or five large loads of stable manure or part stable manure and part chicken manure mixed with muriate of potash. The marked difference between the produce of this well fed garden and neighboring gardens not so well fed was very noticeable. A furnace will not run without coal, or an engine without fuel—so do not expect an exception in a garden, but *feed for production.*

B. H.

A word to the wise is often sufficient. Just say the word to your neighbor,—and hand him a copy of Wisconsin Horticulture.

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MELONS
VEGETABLES
FLOWERS
VINES
SHRUBBERY
WEEDS
ETC.

MYERS WAY

WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, February, 1915

Number 6

Improvement of Home Grounds

By Prof. James G. Moore.

The improvement of home grounds is usually thought of only as of aesthetic value. There is no investment of an equal amount which will increase the value of the average farm or village home as that expended in the improvement of the grounds surrounding the house. It is doubtless true that many needed improvements of the interior of the house have been neglected, it is certainly true that the exterior surroundings have been almost wholly neglected in the past. Do not expect your boy or girl to be satisfied with their home life no matter what its interior aspect, if it is unattractive or repulsive in its exterior aspects.

In improving the home grounds the back yard is usually the place to begin as it most often needs attention worst. A large percentage of the backyards of our farm homes are not only uninviting, but actually repulsive and frequently unsanitary. If nothing more can be done the

litter and frequently filth may be removed and a good lawn substituted.

In improving the home grounds several things, which

enhance its value both artistically and as a dwelling.

The most important features of planting to accomplish this end is to provide a back ground



Care and attention marks every feature of this well-kept place.

are essential if good effects are to be secured, should be kept in mind. The house is the chief feature of the landscape and the treatment should be such as to

for the house and to make it appear as a natural part of the landscape picture. This may be accomplished by planting a house border of shrubs, herbaceous,

perennial or annuals, or a combination of these. Vines can also be used with good effect for this purpose.

Surrounding the house with numerous trees, particularly evergreens in such a way as to shut out the view either to or from the house, and to exclude the sunlight so that it is damp and dismal is poor landscape gardening.

A relatively large expanse of open, well kept lawn, excluding the house, is the most important feature of a good landscape. Too frequently this fact is overlooked and the effect spoiled by improper landscape practices. It is desirable to have at least one large area of lawn with smaller contributing areas rather than several small areas or two areas of nearly equal extent. The walks and drives should be so planned as not to cut the lawn up in too many small areas. Do not locate the walks or drive in such a way as to cut the house off from the main area of lawn. This is frequently done by improper handling of the drive, and should be avoided. Do not spoil the lawn by improper planting. Improper planting is the most frequent method of destroying the effect of the lawn. Improper planting most frequently occurs as improper arrangements, over planting, or the use of objectionable plantings.

On the average place trees or shrubs should not be planted in straight rows except along boundaries or streets. Neither should they be scattered indiscriminately over the lawn. The best location for the majority of the planting of a place is, trees along the boundaries and at rear and side of house, with one or more good specimens on the lawn the number depending upon the size of the place. They should not be

so numerous as to completely obstruct the view or shade the lawn too much. Shrubs, along the boundary lines around the base of the house, in the angle of walks or drives and at times as clumps or individual specimens on the lawn.

Over planting is an error very commonly made in improving home grounds. The amount permissible depends upon the local conditions, but the planting should not be so extensive as to seemingly outweigh the lawn when the entire area is considered. The usual tendency is to over plant rather than to not plant enough. A good rule to follow is don't have so much planting that the place looks crowded.

Discordant features are frequently introduced on the lawn either in the form of plants or flower beds or inappropriate objects. Shrubs with variegated foliage, gaudy flower beds and such inappropriate objects as cheap statuary, iron kettles, old boats used as flower beds and similar articles are best excluded from the lawn.

There is a prevalent idea that all walks and drives must be curved. It is true that a curved walk or drive is more desirable under certain conditions than a straight one. If improperly handled, however, they become ridiculous and are more objectionable than straight ones. Do not attempt to curve a walk or drive unless it is of sufficient length to permit of a graceful curve. There should always be an apparent reason for a curve, and if there is none such, a curve is out of place. Artificial reasons for curves are often provided, but it must be skillfully done to create the right impressions.

The improvement of the home grounds need not be an exten-

sive operation. Many of the plants best suited for lawn decoration can be found growing wild in your neighborhood if not on your farm, and while it may be desirable to get the less common kinds it is not absolutely necessary. The landscape gardener were he making plans for your ground would doubtless use some of the very shrubs which to you are so common that their real value has been overlooked. Herbaceous perennials can be grown from the seed at only a slight cost, and there is no farm home too poor to possess well planted and beautiful home grounds.

Lime Sulphur

I used the Lime Sulphur as a Summer spray last season and found no bad results outside of a little burning of foliage at the first spraying after bloom fell, but I found I was using it a little too strong, on the other hand I had *very little* apple scab on Famuse and McIntosh red apples last season compared to the year before. So I think I will try it again this season. As this was the off season for my orchard I had a very light crop. I am pleased to say, for the market was very dull here, and all the Summer and Fall varieties ripened premature and the keeping qualities very poor. Can you offer any explanation for such conditions.

L. H.

Look for scale and mealy bug on ferns and other house plants. To rid the plants of the insects wash with soap and water, using a soft sponge or brush, then cleanse with clear water. Rain water is better than well water, since it does not contain alkali, which often leaves white streaks on the leaves.

CRANBERRY NOTES

By J. W. FITCH

The annual meeting of the Wisconsin Cranberry Growers Association at Grand Rapids was very well attended. Among those present were Miss Lydia M. Huyek of Minong, Wisconsin. Miss Huyek is secretary and manager of the new bog there which was started by the Hon. C. Lewis of St. Paul and the late Mr. E. C. Lewis of Chicago. The location of this bog seems quite far north to the growers of central Wisconsin but it is demonstrating the fact that northern Wisconsin possibilities are but slightly developed. Another gentleman who has recently become interested is Mr. Albert D. Hedler of Minneapolis, Minn., who is largely interested in the Cranberry Lake and Development Co., at Phillips, Wis., where a bog is being built along the methods used on the Cape. Mr. Hedler is a welcome addition to our growers and thoroughly interested and his success will be a large boost for the industry in Wisconsin. Mr. James Rogers, the manager of this bog, was present and showed samples of the very fine grade of sand and gravel which they are taking from the lake with a clam shell dipper, to spread on the bog. This company has six acres planted and expects to put in twenty more this year.

Mr. Chaney Present

Mr. A. W. Chaney of New York City, manager of the Cranberry Exchange was present to tell of the difficulties met with in selling the crop. While the price had been low the feeling was quite general that under the circumstances Wisconsin growers had fared better than most

fruit growers. Mr. Chaney said that many carloads of berries had been sold at cost by the retailer; one man in Philadelphia who had a chain of stores selling twelve carloads at 3 to 4 cents a quart the week of Thanksgiving. Jobbers and dealers were lucky if they had not lost. This condition took the life out of the business and was the cause of the slow movement.

Mr. Andrew Bissig who travels for the Exchange told of his

tion was needed and that there were some very careless packers. It should be thoroughly realized by all growers, that unless a better grade of berries are put up the Early Blacks will seriously interfere with the Wisconsin crop. Wisconsin can grow the finest berries in the world, but to do so the vines must be kept in a healthy and vigorous condition and they must be packed and sorted in the very best manner. One of the great problems is to keep the vines vigorous and a free discussion of this in the columns of Wisconsin Horticulture would work great benefit.



Weeding on Badger Cranberry Bog, Shell Lake, Wis.

work in adjusting claims for reductions, which had been a hard one this year, as berries generally had not kept well. A telegram was sent to the congressmen of the state asking them to work for the passage of the law making a mandatory standard barrel for fruits and cranberries. Mr. Chaney explained the benefit of such a law, and the work which had been done by fruit men in favor of it.

Sales Co. Meets

The meetings of the Cranberry Sales Co. on the day following the convention brought out the fact that more careful inspec-

Those who sand feel that they can do this by resanding, but those who do not believe in sand must take some other method. We will endeavor to have some of the growers who do not use sand tell our readers their way of managing their bogs. In fact we should make this paper a means of exchanging views and maintain a question box. Anyone wishing information in regard to the cranberry business should write to the secretary, J. A. Fitch, Cranmoor, Wis., who will have some one competent answer and publish the same in Wisconsin Horticulture.

Cranberry Sauce.

To one quart clean cranberries allow one pint of sugar and one pint water. Have water and sugar boiling before adding cranberries, after they begin to boil let boil ten minutes, remove from fire and can or pour in jars for immediate use. They are best when two or more days old. Some like them mashed, that is every berry broken. In that case they mash the berries while they are cooking.

Cranberries are the only berry that will keep without sealing, they have been kept two years and were just as good as when canned.

Cranberry Shortcake.

Make dough the same as baking powder biscuits, roll to half or three-quarters inch in thickness, lay in greased pan (that is nearest the size you want your shortcake) and bake. When done split open and put rich cranberry sauce between and on top of it, pour whipped cream over all and it is ready to serve.

Cranberries should always be cooked quickly, slow cooking spoils the flavor.

One of the quickest-growing dwarf annuals is sweet alyssum. Sow the seeds as soon as the ground can be worked in spring and you will be repaid with an abundance of snowy-white, sweet scented flowers.

Now is a good time to take down the advertising placards that adorn the fence, trees and buildings. No advertising signs should be carried on farm property except those advertising the farm products. These are better placed on a bulletin board convenient to the entrance.

Lima Beans.

Blanchard Harper.

I have grown lima beans for ten years in my garden and I would as soon think of doing without them as of omitting green peas. Of all the varieties tried there is one I depend on—Thorburn's Dwarf Lima. I have only once intentionally tried a pole lima, the Challenger, I think it was, but it ripened too late for a satisfactory crop.

Poles and wire netting necessitated by the climbing varieties are too expensive at present price to warrant the choice of a climbing variety when satisfactory bush varieties are at hand. Of the bush varieties I have tried the following, but always return my allegiance to the Thorburn, as being prolific, a long cropper, and delicious in texture and flavor.

Thorburn's Dwarf Lima
Burpee's Bush Lima
Fordhook Bush Lima
Wood's Prolific
Dreer's Bush Lima

Of the Dreer's Bush Lima, I cannot very well speak because the supposed "bush" beans grew into extremely long vines which ran in tangles all over the neighboring rows, covered cabbages and squashes and every neighboring plant with a strangling tackle and scarcely bore a bean. It is needless to say that I have not tried them again, although justice compels me to add that the garden that year was heavily manured with chicken manure.

Wood's Prolific really deserves the name. It is very prolific, but the beans are very flat and lack flavor of the Fordhook and the Thorburn. They belong to the Sieva class. This is really a satisfactory bean and comes earlier than the others.

Burpee's is a very large podded bean, but when shelled did not prove as prolific as Thorburn, nor quite as tender. I grew it only one summer and might have another opinion had I grown it more.

Thorburn's Dwarf Lima and Dreer's Dwarf Lima are said to be the same by W. W. Tracy, Jr., U. S. Dept. of Agriculture, Bureau of Plant Industry.

I have given my experience with the Dreer Bush Lima, above and while I am inclined to think the seed sent from Dreer's was a pole lima, it being labeled "bush lima," I can only conclude that they are different. The Thorburn Bush Lima and Fordhook are very similar, the latter fruiting some weeks earlier, is not as buttery or tender as the former. The bean is a thick, mealy "potato" bean, buttery and tender, smaller and thicker than any others I have tried.

As to its culture what happened in my garden last summer will perhaps tell the story as well as any other way. I planted two rows, and thinned or transplanted 8 inches apart in the row. One row was in the middle of the garden, where the soil is good; the other row was on the extreme edge, where in the course of ten years the soil has washed away over the rest of the garden, and where consequently in spite of manure and cultivation it is hard and poorer than elsewhere. During July and August, 1913, the weather was so dry that my corn burned, much of it without bearing. Two feet from the beans on the west was a row of cos lettuce, irrigated as I do in my garden by sinking 4 or 5 inch flower pots to the brim in the soil in the row three feet from each other, as past experience has shown me the water filling the pots will spread three feet

each way. Beyond the lettuce was a row of celery, also benefiting by the water. The lettuce did not reach the whole length of the row, and the difference in growth in the part of the row of beans affected by the watering and the part not reached was very marked. The parts reached by the water bore well, *as long as the watering was continued* but stopped abruptly when the lettuce was finished. The row in the poor soil with no water did not bear at all until late September, after the rain had begun, and then only scantily. It is my custom to manure my garden thoroughly by using three large loads of barnyard manure on 60x75 ft. with some chicken manure and muriate of potash added; then after seeding, peas, beans, corn, and things I care about, to sprinkle over the row with a trowel, a good all round fertilizer of bone, tankage, etc. Swift's, I think is what I have. Another application of the fertilizer is made after the plants are up and a third when they begin to flower. Some years I have gathered nearly two bushels of pods from a 60 ft. row. We can conclude I think, that they are a crop, occupying the ground all summer requiring a very rich soil, lots of fertilizer and plenty of water to do well. They should be planted a little later than string beans, and under proper conditions will bear from August to Thanksgiving. The beans should be picked green, and quite young, shelled, and cooked twenty minutes in boiling water, unsalted. Salt should be added just before taking from the fire, not before. Drain off all water which was not boiled away, cover with melted butter, or thick cream, and feast.

Best Kinds for Home Garden

Beans. *Extra early Valentin*. A delicious bean, not entirely free from string but so tender and delicate as to compensate. For earliest planting, or as may be preferred to plant August 15th for a late fall crop. It does excellently well into late October if protected from heavy frost by a cheese-cloth screen.

Stringless Green Pod—Good main crop, large tender stringless pods. Both varieties are excellent for home canning.

Fordhook Bush Lima for early, require extra fertilizing.

Thorburn Dwarf Lima for main crop.

Dreer's Black Turtle Soup bean for soup—takes all summer to mature.

Beets. *Model Red Globe*—similar to Crimson Globe, very tender, sweet, delicious, early.

Crimson Globe—tender and sweet, an old stand-by.

Crosby's Egyptian.

Detroit Dark Red Turnip, somewhat later than foregoing.

Edmond Blood Turnip—Delicious.

Brussels Sprouts if grown, must be started early in house or hotbed.

Cauliflower ditto.

Cabbage, Danish Ballhead.

Carrots. Half Long stumprooted.

Celery—Golden Self Blanching, early.

Corn. *Golden Bantam*, an early yellow.

Portland—a white second early unusually delicious milky corn. (Northrup King & Co., Minneapolis).

Stowell's Evergreen for main crop.

Country Gentleman, for late crop.

Black Mexican, for late crop.

Cucumber (for table) *Thorburn's Noroton Selected* very delicate flavor. Sink a 5-inch flower

pot in the hill, plant seeds around it and after seeds have germinated water when necessary by filling flower pot with water. Will bear in this way in the driest weather.

Eggplant. *Improved New York Spineless*. Sink a flower pot between every two plants as above.

Endive. *Green curled winter*, plant in July, lift in fall to store in cellar.

Lettuce. *May King* (Northrup, King & Co.)

Mignonette (Thorburn, or Henderson) a small red but very solid head, can almost be cut through like cabbage if well grown, too small for market.

Crisp as Ice (Northrup, King & Co.) useless for market, because it wilts quickly, given by Tracy in "American Varieties of Lettuce" p. 20, as the second for quality of the ten best. Very tender.

Sterling (Northrup, King & Co.)

All Heart (Dreer).

Paris White Cos.

Okra. *White Velvet*.

Onions. For salad, etc., white Portugal or American Silver Skin.

Peas. If a large garden, with horse cultivation try *Gradus*, a delicious pea, but with long vines large pods. Some years ago we and measured the shelled peas from one bushel of *Gradus*, there were 12 pints for canning, a week or two later from one bushel of *Advancer* there were twenty pints. Now with a *small garden* does it pay to plant a variety which yields so much less. *Little Gem improved* yields about what *Advancer* yields per bushel. Consequently I advise planting the smaller varieties.

Little Marvel.

English Wonder.

Peppers. *Thorburn Upright Sweet Salad*.

Peppers. *Thorburn Extra Curled.*

Parsnip. *Hollow Crown.*

Salsify. *Mammoth Sandwich Island.*

Swiss Chard. *Grant Lucullus.*

Squash. *Summer Crookneck Vegetable Marrow English* (plant in the corn).

Tomatoes. *Ponderosa, Stone or Sterling* train to stakes.

This selection is made almost entirely from what I have grown in recent years. Having only a small garden on account of space, potatoes and running squash are omitted. Turnips, kohlrabi, and large onions, I have not formed opinion as to varieties yet.

Tropical Plants for Indoor Winter Garden.

With a little care, a number of tropical plants may be grown indoors, and during the winter they are a particularly attractive addition to a bay window or conservatory garden. Various kinds of palms, rubber plants, oleanders, aspidistras, and cacti are easily kept in good condition indoors if given the proper attention and not permitted to be exposed to frost, according to the Department of Agriculture's horticulturists.

Palms:—Palms are much used for interior decorations where there is no direct sunlight. Regular watering is essential, with especial care not to overwater. It is better with most palms to keep them a little dry than too wet. Where a pot is in a jardiniere especial care must be exercised not to have them too wet.

While small, wash the foliage occasionally with soap suds made from a good soap. Immediately follow with a thorough rinsing. When too large for this, spray the tops frequently with clear water.

Browning at the tips usually comes from trouble at the roots:—first, overwatering; second, worms on the roots; third, lack of plant food. The first is the trouble in nearly every case. The worm that gave the trouble is not the ordinary earth worm, but a little white harmless looking creature that emerges into the air as a small fly. Dissolve a piece of quick lime as big as a tea cup in three gallons of water. After it is through sputtering and the milky mixture has cleared, pour off the clear part and soak your soil with it. Do not dilute, for the soaking should be thorough. To provide plant food, stir small quantities of bone meal and wood ashes into the surface or in place of ordinary watering occasionally use manure water or ammonia water (a teaspoonful of ammonia to a quart of water). Trim off the brown tips, as they will never recover. If the leaves turn yellow, look for scale on the under side and be sure you are not overwatering. Wash the scale off or spray with kerosene emulsion or whale-oil soap, or some nicotine preparation.

Do not repeat too often. If a palm grows three new leaves a year it does well.

Rubber Plants:—Rubber plants are especially satisfactory to grow where there is a good light without direct sunlight. Water often enough to keep the soil moist, but do not under any circumstances permit water to stand about the roots nor allow it to become "bone dry." A potted plant set in a jardiniere needs especial care not to overwater.

Wash the foliage frequently with soap suds made from good soap. Rinse thoroughly at once.

Repot occasionally as the pots become full of roots. Feed once

in two to four weeks with dilute nitrate of soda (a heaping teaspoonful dissolved in water) or ammonia water or manure water as described for the palm or some prepared plant food.

Oleanders may be treated more or less as are palms.

Aspidistras are most ornamental. They should be kept rather drier than palms and rubber plants.

Cacti require rather dry sandy soil.

Actual Value of Shade Trees.

According to the bulletin of the Massachusetts forestry association, to determine the value of shade trees on streets, the advice of practical real estate men was sought. A large number of these men were asked this question: "How much, in your judgment, do full grown shade trees along the street improve the value of the adjoining land for house lots?" The majority of answers ranged from 10 to 50 per cent., while some went so far as to state that a house would be worth 100 per cent. more if full-grown shade trees were standing in front of it.

A fair average of these answers falls between 25 and 40 per cent. Expert tree appraisers say that a shade tree in good condition and well placed is worth \$1 per square inch of cross section measured at breast height. At that rate a tree one foot in diameter is worth \$113, while a tree two feet in diameter is worth \$452.

For the sake of illustration, suppose that we take a good-sized house lot, 50x100 feet, or 5,000 square feet apart on the street there would be one tree in front of the property. The tree is two feet in diameter and worth \$452, which would increase the value of the lot 36 per cent.

Seeing Things

"First we see things with our eyes, see them flat like pictures in a book, and that really isn't sight at all. Then some day we see them with the heart, or the soul, or the spirit,—I'm not certain just what it is that really sees, but it is something warm and strong and light inside of us—and that is the true sight."

—David Grayson.

David Grayson might have said with equal truth that when first we see people we see them flat like pictures in a book, "then some day we see them with the heart, or the soul, or the spirit,"

We meet a man in a business way, we barter stocks or groceries or apples; we meet him many times and finally we come to talk of other things than dollars or bonds; we talk of people we know or perchance of friendship and children and home. We discover in him traits we like and soon we are *friends* as well as business associates.

Even then it is seldom we see our friend except as flat like a picture.

Too often we see him only in the full everyday light and it is only on the dark days or as when a sidelight stealing thru an opened blind shows that which before was but dimly seen. We seem to see then, with the heart, or the soul, or the spirit.

It was even so of him I called my friend, Jared Lamson. We had known each other many years and I knew many of his moods, his high sense of honor, his honesty, and said, without thought, "I know him well," but as I found later I but seen him with my eyes and not with the spirit. I had not looked into his soul.

We had traveled many weary miles that day, traveled some-

what out of our way that we might reach Warren and the Belle Isle hotel, for after three days of the small town fodder and bedding of the far north we felt a great longing to taste once more the eatables and drinkables of civilization.

We had washed and shaken off much of the dust of travel; we had eaten in the great dining room, bright alike with silver and the brighter faces of waiters, who from long service recognized forest refugees and who fed us as we deserved. We had strolled down the big lobby, meeting men of affairs and of no affairs, bought cigars and papers and strolled back to the desk.

Just then a boy hobbled in through a side door and stood before us; or rather he did not stand but leaned on crutches one withered leg dangling, the other thin to emaciation. A hunchback crowded a head large beyond all proportion over a chest narrowed and sunken. From the ashen face that peered up at us all the gladness of life had fled and sorrow and misery had worked their will.

He was selling papers so he said, as best we could understand him and I bought one, the the second one that evening but the sight of this misshapen, pitiful fragment of humanity that disease or heredity had set a curse upon, excited my pity and a nickel was only half the price of a good cigar anyway. Jared also bought one and turned as if to go but really to hide from his left hand that which his right hand was about to do.

I saw his hand altho he did not mean that I should see it, saw it slip into that other withered hand a big round dollar. Then I saw with the heart, with the soul and the spirit. I had looked into the soul of my friend. F. C.

The Pot of Gold.

The following is from the Portage Democrat of Dec. 29, 1914.

"Times are very hard out here. Thousands of men are out of work. Country has been boomed to death by newspapers and real estate men."

That's what James Connell says, writing to The Democrat, Dec. 21, from Cashmere, Wash. He's a former Portagite located on rural mail route No. 2, box 128, out of Cashmere.

"This country," continues Mr. Connell, "is not built upon as solid a business foundation as the country back in the Badger State, for instance. It is almost impossible to buy any real estate here without paying a boom price. Some of the fruit orchards here have been boomed up to \$2,000 and \$3,000 an acre on the strength of the \$2 and \$3 a box for apples which growers got in the market a few years back. The boomers and the boosters have met their Waterloo this year, for they are lucky to get 50c and 60c a box for apples now. The inflated land prices will have to take a tumble soon, and great will be the fall.

"I feel sorry for those eastern people who come out here if some land shark gets hold of them and sells them orchard farms for two or three times real value. Most of these investors know little or nothing about western orchards—can't judge them as to productiveness or value. Apples never will be \$2 and \$3 a box again, because there are so many young orchards just coming into bearing. During November twenty cars of apples were shipped daily from Cashmere, on an average."

A potted plant must have air about the roots and good drainage, as it would in the garden.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 24 E. Mifflin St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second matter May 31, 1912, at the postoffice at Madison, Wisconsin, under the Act of March 3, 1879.
 Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of Wisconsin Horticulture. Remit fifty cents to Frederic Cranefield, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and pays for two years. Personal checks accepted.

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Student Prize Winners.

The following were winners in the students speaking contest:

R. W. Leukel, \$25; A. A. Trojahn, \$15; L. D. Eatough, \$10.

And in the student judging contest the following were winners:

H. W. Dye, \$8.00; W. A. Moorehouse, \$6.00; R. C. Pickett, \$3.00; and A. A. Meyer, \$3.00.

Sow pansy seed in the greenhouse for early plants.

Plan to plant some of the herbs, such as dill, anise, and caraway, this spring.

It is possible to have iris in flower for about six weeks, if careful choice of varieties is made. Begin early with the dwarf Siberian roots and continue to the larger German kinds. Japanese varieties are excellent, but do not stand this climate.

Azaleas may be kept for another season, although the flowers will not be so good. Gradually reduce the water supply and keep in a cool place until next May, when the plants may be put in a shady place and rested until about September 1.

Farmers Wanted.

This title appears at the head of a circular letter recently received at this office together with the statement that the Director of the Reclamation Service will be glad to see a marked copy of the paper in which the material mentioned appears. The Honorable Director shall be accommodated but whether he will "be glad" or peevd is a matter of doubt.

Here is the article:

"Uncle Sam is looking for several hundred practical farmers to take up homes on the irrigation projects he has been building in the West. The land is free, but the law requires settlers to pay their share of building the irrigation system, and for this reason a moderate capital is necessary. A practical farmer with from \$1,500 to \$3,000 should have no trouble in acquiring one of these farms and putting it in successful cultivation.

Under the new Extension Act the settlers are allowed twenty

years in which to pay for their water right, and no interest is required on deferred payments. Details concerning opportunities and terms will be furnished upon request by the Statistician of the Reclamation Service, Washington, D. C.

The farms are located in Idaho, Montana, South Dakota, Nebraska, Wyoming and Nevada, and offer opportunities for citizens to establish homes in a growing country. Adjacent farms are under cultivation, railroads have been built, schools and churches established, telephone and rural free delivery are available, and most of the hardships of pioneering already have been overcome.

Alfalfa is the big crop, although grain, and sugar beets are profitable and in some sections truck farming pays well. Livestock and dairying are the principal industries." And here is the answer.

Director Reclamation Service,
 Washington, D. C.

Dear Sir:—You say "Uncle Sam is looking for several hundred practical farmers to take up homes on the irrigation projects he has been building in the West."

Why has Uncle Sam built irrigation projects in the West? Who asked him to do so, job hunters or contract sharks? Why should he spend millions on a project that makes available but a few thousand acres and these far removed from markets when nearly ten million acres of productive land well watered, well drained and as productive as the best of the irrigated lands of the West lie ready and waiting in Northern Wisconsin for the "practical farmer with from \$1,500 to \$3,000."

Northern Wisconsin has no irrigation projects and needs none. Wisconsin farmers hold

no government subsidy nor ask any, only fair play.

We need, not several "hundred" practical farmers in Wisconsin but several thousand, and while Wisconsin is unable to offer them the inducement of "twenty years in which to pay, and no interest on deferred payments" we can offer them *practical farming conditions*. We can offer them lands within easy reach of the best markets in the world, lands productive almost beyond belief where irrigation is unnecessary and where "live-stock and dairying are the principal industries."

We have virgin lands on which fruit trees may be planted that in a very few years will yield more per acre than the best of the irrigated lands.

Have you anything to offer, this morning, Mr. Director, of the Reclamation Service in the way of cherry lands on Uncle Sam's watered projects that will yield eight hundred dollars an acre for a single crop with an average of six hundred dollars for ten years? We have. Have you any lands with nice loamy soil overlooking the largest body of fresh water in the world that tempers the spring and autumn breezes and brings rain when rain is needed, lands that may be had at twenty to fifty dollars an acre that will yield berries in abundance, berries that Kern will buy at the rate of five hundred dollars an acre? We have.

Have you any very beautiful ridge lands with soil sixty feet in depth and that have been pronounced the best apple lands in all the world that you are offering at fifty to one hundred dollars an acre? We have.

Until you can offer some of these things, or at least until we are out of them do not expect us

in Wisconsin to give aid and comfort to your irrigation schemes.

All of which is respectfully submitted.

Now that ought to hold the Director awhile but if not then Campbell of the Advancement Association must be notified. If he fails then somebody should let Packer of the Immigration Board know and he *will* finish him.

Editor Wisconsin Horticulture

Practical Tree Surgery.

R. W. Luekel.

1st Prize Students Speaking Contest, Annual Convention

How often we see some great noble tree, the product of years of Nature's work, going to destruction, its branches drying and its trunk decaying, when very little work several years before might have prevented this. In few other fields do the old sayings, "An ounce of prevention is worth a pound of cure" or "A stitch in time saves nine" hold true better than in tree surgery. Very little time and expense are required usually to treat a fresh injury, but it often takes considerable time, labor and money to treat it after years of neglect to say nothing of the irreparable harm done to the tree in the meanwhile.

In considering the subject of tree surgery it is first necessary to become familiar with the parts of the tree, their structure and functions and how tree surgery affects them.

Briefly—a tree consists of three main parts: the root, the stem (trunk and branches), and the leaves. The roots anchor the tree and take in water containing food material. The stem serves to support the rest of the plant and conduct water containing food

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material or plant food in solution. The leaves evaporate the water taken in from the soil, retaining the soluble food material and, with the aid of carbon dioxide taken from the air and sunlight, manufacture plant food. It is clearly evident then, that if the roots are injured, the tree does not get sufficient moisture from the soil; if the leaves are injured, the manufacture of tree and fruit building food is impaired; and if the stem is injured, the transportation of food to parts where needed is hindered.

Here are diagrams of cross sections of the stem. The center or heartwood is practically dead tissue and takes no part in the life of the tree, except to give it rigidity. The next layer, the sapwood, conducts water containing food material in solution to the leaves where plant food is manufactured. The inner bark carries this food to places where it is needed. In both cases the material is carried in solution in microscopic tubes running parallel with the stem. It is clearly evident then, that a long narrow wound on the stem is not as serious by far as a short broad one, as less of these tubes are interfered with.

From the standpoint of tree surgery the most important part is the cambium, a thin watery layer between the sapwood and the outer bark. This is the "tree builder" or "woodmaking" part of the tree. New cells on the inside of this layer are constantly forming wood, and new cells on the outside are forming new bark. If a portion of the cambium is killed, no wood or bark can form at this spot, but the surrounding cambium will eventually cover the spot if disease and decay do not prevent, as is often the case when the wound is not properly treated. So it should be borne in

mind that the formation of all new wood and bark and the healing over of all cuts and other wounds are due to the cambium. Ignorance or disregard of this fact is the cause of many failures in tree surgery.

Trees may be injured in many ways; for example by wind or other agents breaking branches, by gnawing animals, by linemen with their spurs and saws, by poorly insulated electric wires, and by the ever zealous name-carver. All these agents and many others open avenues for the entrance of disease and decay.

In its simplest form and as we would commonly exercise it, tree surgery consists of two phases, namely:

1. Removing dead, decayed or broken limbs, and treating the scar with an antiseptic and a water proof coat to prevent decay while healing.

2. Cutting out the diseased or decayed matter in trees, disinfecting the cavities and filling with cement.

No. 1 comprises two essential operations:

- (1) Removing the branches so that the surrounding bark and cambium will not be injured.

- (2) Sterilizing and waterproofing the scars to prevent decay while healing.

In cutting off a large limb it should first be cut underneath to prevent it from stripping off the bark as it falls. The lower cut should be a trifle closer to the trunk than the upper one. After the limb has fallen a third cut is made close to the trunk and in line with its woody part. When nearly severed the stub should be supported so as to prevent stripping. If not already so, the scar should be made more or less pointed by removing a small triangular piece of bark from the

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upper and lower edges as this is the most favorable shape for healing. *Under no circumstances* should a stub be left on the tree, as it will not heal over at the end, but will die back, affording an excellent opening for the entrance of disease and decay. After the last cut has been made the exposed bark and cambium of the scar should be treated with shellac at once. All exposed surfaces are then sterilized with creosote and then coated with coal tar to make them water proof. This should be occasionally inspected and if it shows any tendency to crack or peel it should be recoated at once.

The other phase of tree surgery which I wish to discuss briefly is often called tree dentistry and comprises three important steps:

(1) Removing all diseased and decayed material from the cavity.

(2) Sterilizing and waterproofing of cavity and all cut surfaces.

(3) Filling the cavity with cement so as to favor rapid healing and prevent decay.

Often it is necessary to enlarge considerably the size of the opening, for the cavity is usually larger than the opening indicates. In doing this we should remember not to make it any *wider* than is absolutely necessary although the length may be extended considerably without much harm to the tree. The bottom of the opening should be lower than that of the cavity so as to insure drainage. The excavating must continue until sound wood is reached and every bit of decayed material is removed. If possible the sides of the cavity should undercut so that the filling will be held in place. Great care should be exercised in working around the cambium and the final cutting along here should be done with a

very sharp knife. After the diseased and decayed matter has been removed and the edges of the wood and bark shellacked, the interior should be sterilized with creosote and coated with tar and then the cavity is ready for filling.

If the cavity is large and the remaining shell of wood not very thick, or if the sides of the opening do not undercut enough to hold in the cement, it is advisable to place thru the trunk, one or more bolts to strengthen the tree and hold the cement in place. Nails with large heads may be driven into the walls of the cavity to aid in holding the cement.

For filling cavities, good Portland cement is recommended (1 part cement to 3 or less of sand). It should be of the right consistency—if too watery it will flow out of the cavity, while being tamped, and if too dry it will not pack down properly. The cement should be put in by layers, tar paper being put in between. Each layer should be well tamped, a canvass band being placed around the tree to hold the cement in place in the meanwhile. Before it becomes hardened, it should be smoothed and made to conform to the shape of the tree. *Last but not least in importance* it should be occasionally inspected and defects remedied if they appear.

There are many minor details regarding these 2 phases of tree surgery with which the prospective tree surgeon had best become familiar to insure success in his work but the limited time would not permit their discussion here.

If all persons owning or having control of trees or having an interest in their preservation would familiarize themselves with these comparatively simple principles

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and methods of tree surgery and put them into practice many of the noble giants of the forest which now adorn our homes and streets will not fall victims to disease and decay but will be saved for future generations.

Yields of Apple Trees at Different Ages.

W. T. Macoun, Dominion Horticulturist, Ottawa, Ont.

Each year there is a large number of new fruit growers in the province of Ontario, men who believe that they can make a success of the industry and who are determined to try. These men, before making their decision, estimate present and future expenses; they also endeavour to estimate probable crops and profits, but when they come to look for figures showing the yields of different varieties of apples they are disappointed. It is a remarkable fact that there has been very little reliable information published in America on the actual crops obtained from trees of different ages of the varieties of apples which are usually planted for commercial purposes. There is the general statement that Wealthy and Wagener are early bearers, that Northern Spy does not bear anything to speak of until it is twelve years of age, and that King is a very shy bearer, and that McIntosh is a rather light cropper in some places, and so on, but few actual figures are available. In fact, until a table of such yields was published in the Annual Report of the Experimental Farms for 1902 we do not think that any records of yields had been published when trees came into bearing and afterwards. Other records have been published in the reports for 1903, 1905, 1905-6, 1909, and 1911.

Since the year 1898, or for sixteen consecutive years, records have been kept of over three thousand apple trees in the orchards at the Central Experimental Farm. Unfortunately, among these trees the winter varieties of most commercial value in western Ontario are not to be found, such varieties, for instance, as King, Greening, Baldwin and Spy, as they have not proved hardy at Ottawa, but other known sorts, such as Yellow Transparent, Duchess, Wealthy, Fameuse, and McIntosh, have been recorded with many others. The number of trees of each variety grown at Ottawa, however, is very limited,

as so many sorts are under test. In the table which has been prepared only the heaviest yields are given, as it is believed that where only a few trees of each variety are grown the highest yielding tree would be fairly near the average of an orchard of several acres. These figures are not given for the main purpose of basing future profits in orcharding, but rather to give some idea of about the crop one might expect from trees of different ages. For estimating probable profits the yields from whole orchards should be taken for series of years, but while, no doubt, many such figures will be available in a few years, few

POTASH

**is food for thought
as well as for crops
this year.**

When shipments were interrupted by the war, it was estimated that there was enough Potash on hand in the United States to provide two and three per cent Potash in mixed fertilizers for this spring's trade. Some manufacturers had more than enough for these percentages.

Since then minor sources of Potash have been fully utilized, and additional shipments from the usual source are still being received.

The supply is below normal, but this need not prevent farmers securing some Potash in their fertilizers, nor should it lead farmers to decide not to use fertilizers.

There is no reason to return to the out-of-date goods without Potash, although some authorities may try to "wish" them on us.

We have not used enough Potash in the past. The largest annual import of Potash was only one-seventieth of the Potash taken from the soil by our 1914 corn crop and only one-fifteenth of the Potash lost every year in drainage water.

Spring crops use from two to ten times as much Potash as Phosphoric Acid. Get as much Potash in the fertilizer as possible. A few firms are offering to furnish from four to ten per cent.

There is no substitute for Potash. It may be harder to get just now, but **POTASH PAYS.**

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have been published yet except those in connection with demonstration orchards where mature trees are under test.

McIntosh Yields.

The McIntosh apple comes into bearing the sixth year after planting at Ottawa. In that year a tree has borne about two eleven-quart baskets of fruit, and by the eighth year nearly a barrel of fruit is borne on a tree. By the tenth year a barrel and a half, by the twelfth year three barrels; the fifteenth year, four and a half barrels; the nineteenth year, seven and one-half barrels; the twenty-first year, seven barrels; the twenty-third year, six barrels; and the twenty-fourth year and the year following, four and three-quarter barrels, or an average during the past two years of nearly five and a half barrels a year. Taking the average per year for nineteen years during which it has been in bearing, we find the average yield per year from one tree has been about two and three-quarter barrels. It would look as if one might safely count on two barrels a tree.

The Duchess apple is one of the most reliable and productive varieties. It begins bearing the third year after planting, and by the sixth year the trees will bear nearly a barrel apiece. By the eighth year two barrels, and by the eleventh year more than four barrels, and the maximum crop so far has been reached in the twenty-fourth year, when a yield of over eight barrels was obtained from one tree. One tree bore the following crops in thirteen consecutive years, beginning with the eleventh year: Two and one-half barrels, two, three and three-quarters, three, four and one-half, three, four, two, four and one-half, four, six, two, and

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

by extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

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Try a few of the new sorts if you wish. We have them. Our **Fruit Trees, Small Fruit Plants, Vines and Ornamental Stocks** were never better. Our prices are as low as any where *quality of stock* is considered.

Our Landscape Department will draw your plans and do your planting. Write today for our new catalog and your list of needs for next spring.

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We are often asked the question, "Why are trees grown in the vicinity of Rochester, N. Y., better than those grown in other locations?"

For the first three years a tree can stand no great drawbacks, and is governed by Nature's laws, the same as animal life; it must start out with a constitution if it is ever to make a vigorous fruit-bearing tree.

It is an acknowledged fact that trees grown in the Lake Ontario region of Western New York have withstood the test of years, and when transplanted to every state in the Union have proved of unsurpassed vitality, and given good satisfaction to the purchaser. The soil is specially adapted to tree-growing and the first thing noticeable to a stranger is the thrifty appearance and fruit-bearing qualities of the trees in this locality. Added to the advantage of soil comes the climate, and in no place within our knowledge is the temperature so even or the sun so obscured in winter. The tender tree is never subjected to those sudden and rapid changes caused by bright, warm days, so prevalent in some sections, and which will start sap in February or March, oftentimes to be checked in a few hours by zero weather—and before the young tree has arrived at the age to withstand these reverses, it has become sickly and stunted.

Buy our Western New York grown piece-root grafted apples for Spring 1915 planting.

CHASE BROTHERS COMPANY

The Rochester Nurseries

Rochester, N. Y.

five and one-half barrels. Other trees bear a heavy crop every other year. The average yield per tree from the third year to the twenty-sixth is about two barrels per tree, and from the tenth year to the twenty-sixth, three barrels.

The Wealthy is one of the earliest and most productive bearers, but it does not become a large tree, and the maximum crops have not been as large as some other varieties. It begins bearing the second or third year after planting. One tree gave us as much as nine gallons of fruit the third year, but as a rule there are only a few apples the second and third years, and most trees do not give more than from three to five gallons the fourth year. The fifth year there is about half a barrel to a tree, although we have had over a barrel on one tree. By the seventh year the tree will be bearing a barrel or over, and by the eighth year there has been as high as two barrels on a tree. By the eleventh year, some trees will bear two and a half barrels, and by the thirteenth and fourteenth year from three to four barrels. The highest yield obtained from a Wealthy in one year was five and three-quarter barrels in the twenty-fourth year. The average yield per year from the third to the twenty-sixth year is about a barrel and a half. This is a low average compared with some other varieties, but the Wealthy is a small tree, and as a rule bears heavily one year and has a light crop the next, which brings down the average. But from the twentieth to the twenty-sixth year the average is two and three-quarter barrels a tree.

Other varieties could be discussed in the same way. One of the highest yields obtained from

any one tree in any one year was from a McMahan which, in the twenty-sixth, which is the greatest age of trees in our orchards, yielded nine barrels.

In Bulletin No. 376 of the New York Agricultural Experiment Station the yields are given of an acre of Baldwin orchard of trees twenty-seven years old at the beginning of the experiment, and thirty-seven years at the end. For ten years the average yield per tree was 4.29 barrels, consisting of 2.91 barrels stock and 1.38 culls and drops. These are the only figures outside of our

own for a long period of years that I have been able to find. The figures which I have given in this short paper are merely suggestive. What are needed are figures for a considerable number of years from large orchards of a few varieties. It is to be hoped that the provincial demonstration orchards throughout Ontario will later on publish this information.

Bird houses may be made and put in convenient trees. The birds seem to prefer boxes that have weathered a little.

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MYERS WAY

Bird Enemies

The fruit growers of Wisconsin are the birds' best friends.

We want song birds about our homes and we are willing to furnish them with free rations of berries in return for the pleasure they give. We are willing to give aid to any sensible and rational movement looking toward the preservation of song birds but we do want the efforts to be sensible. Such slushy stuff as the following from the Marinette Eagle Star will do harm both to the fruit business as well as the birds. The real bird enemies are the ones who write sentimental stuff like that here reprinted who know little about birds and nothing of fruit-growing.

*"Every Orchard a Bird Sanctuary—
Why Not Encourage the Tireless
Little Workers Who Destroy the Insect
Pest?"*

"One hundred and seventy-six species of insects attack the apple tree, while apple-producing states spend as high as \$3,000,000 for spraying trees to keep down the codling moth. Instead of putting poison (which often kills the birds), on your trees, why not encourage these tireless little workers to come and rid your fruit trees of insect pests? Every orchard should be a bird sanctuary. What are you doing to make a safe refuge of yours? In return for shelter and protection your feathered friends will brighten your little world with their beautiful plumage, while working every hour in the day for you, and sing glad songs of thanksgiving while they work."

We much fear that our thrushes and robins would suffer much from loss of sleep if they are to sit up all night and every night for three months catching codling moths that fly only by night.

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Personal and confidential: The photo that I am enclosing shows my faithful dog Jack in the background. This is a trade-mark no other nurseryman can use for he never would be found in any other nursery. I don't believe a better block of apple trees was ever grown in Wisconsin. Don't they look it?—M. F. F.

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And they certainly would have a devil of a time sitting around watching for the egg to hatch and the "worm," pin head in size, to crawl into the calyx cup.

We really must keep on spraying our fruit trees and feed the birds on raspberries.

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Will be glad to figure on your wants either in large or small quantities.

Wauwatosa, Wisconsin

Single Stem Tomatoes.

Here is a little of my experience raising tomatoes.

Five years ago I noticed an ad telling of a tomato being raised in Tennessee that trellised like a grape, made vines twenty feet long, was a prolific bearer and produced a fine quality of fruit.

I sent for some of the seed and have been trying it out ever since. My last two crops have been at the rate of 20 tons per acre fine solid fruit, very few seeds and excellent flavor; in fact the quality has been so fine that I have been able to hold the price at five cents per pound for the whole season. My plan has been to keep the soil in good condition by using barnyard manure plentifully and cultivating freely, allowing no weeds to grow.

Start seeds early, in boxes in house, transplant to hot bed as soon as weather permits. When plants are 6 to 8 inches high, with good sturdy stalks, I transplant to garden. I use a garden trowel in taking up the plants and by first moistening the ground I can usually succeed in transplanting without any wilting or stopping of growth.

I set in rows, three feet apart and set plants twenty inches apart, when about eight inches high, I put in posts and give plants their first aid by stretching wool twine about eight inches from the ground and tying plants to it with a narrow strip of soft rag. As plant grows I usually add another twine about eight inches above the first and above that I use No. 14 wire until the upper wire is about five feet from the ground, fastening the plants to each wire, same as at first.

I let no laterals grow, but cut them out as fast as they form, leaving only the fruit sets to grow. In this way I throw all the life and energy of the plant into

producing fruit instead of leaves and vines.

When about five feet high I clip the tops of the vines and as no more fruit will mature this throws all the strength of the plant into ripening the fruit already set.

This plan has proved very successful with me, and I offer it to the field, to ponder over.

Salem E. Weld.

Note: Any variety of tomato except the dwarfs may be successfully grown by above method.—Editor.

All of the spicy little items in this issue about gardens, etc., are by Prof. LeRoy Cody of Minnesota.

Go over the canna, dahlia and gladioli bulbs to see whether they are keeping.

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A peach that has amazed the world of Horticulture. Larger, heavier, better flavored than Elberta. Brings 1/4 to 1/2 higher Prices. Read whole story in catalog.

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Ripens 5 to 7 days ahead of Elberta; averages 1/2 to 1/2 larger; firm, solid flesh, ships almost like apples; meaty as a cling, yet perfect freestone; practically fuzzless skin; immense size fills crates faster, more profit; holds shape in can and doesn't "rag-out;" late bloomer; hardy. Reserve your trees now! Be first in your section with this wonderful peach.

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Extra size trees at no added cost. Our Stark City Ozark Mountain soil produces marvelously heavy, dense, well-branched roots. Trees grown with William P. Stark roots produce faster growing, hardier, more vigorous trees—that come into bearing a year younger.

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WISCONSIN HORTICULTURE

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Volume V

Madison, Wisconsin, March, 1915

Number 7

The Queen of the Garden

W. J. Moyle

The rose has long been designated as such and rightly, I think. In Wisconsin, however, where the climatic conditions are so severe and erratic, she has a hard job to live up to this reputation.

For this reason, permanent rose beds or the setting of rose bushes, for lasting effect, has always met with disaster, with one or two exceptions, these being the *Rosa Rugosa*, the hardy brier roses or our native species, but as all of these have little value as a cut flower, therefore we still find ourselves handicapped when we try to bloom the half hardy Hybrid Perpetuals and Teas. Nevertheless, we will still keep on trying to grow the Queen, with all her beauty, charm and sweetness. This article is intended for that person, who still undaunted, delights to walk into his own garden and pick a bouquet of our best roses.

We have succeeded in always being able to cut a nice handful

of blooms, any day in summer, from two or three dozen plants grown in the following manner:

Select a good sunny spot in the kitchen garden, that is well

trench put three to four inches of well-rotted barnyard manure. Fresh cow manure can be used, if free from coarse litter, but under no circumstances, use fresh



"Home grown" flowers, see page 109

drained, with a clay or gravel subsoil, if possible. Dig a trench one foot wide and one foot deep, long enough to accommodate the number of plants you intend setting out, putting them twelve to eighteen inches apart in the row. In the bottom of this

horse or chicken manure. If for any reason commercial fertilizers are more convenient for you to use, it will answer very well. Put in about a handful to every foot of row; mixing well with the first three inches of soil, then put in four inches of top soil,

on which set your plants, filling up around the same with surface soil. Give the plants a good watering at once. Then in the evening or early morning, hoe up the soil, nice and mellow, around the plants. Keep this hoeing up two or three times a week until the plants become well established, say the middle of July, at which time a mulching of coarse manure or lawn mower clippings, placed close around the plants, will retain the moisture in the soil and insure you a steady, healthy growth of plants, the balance of the summer.

In dry, warm weather frequent syringing with the hose, using a fine nozzle and applying in the evening is greatly enjoyed by the plants as well as almost necessary to keep down the insects. If you haven't the hose facilities, go after them with the sprinkling can, pushing the nose of the can well under the plant, so as to wash off the under side of the leaves where the thrips and red spider set up housekeeping.

Dormant hybrid perpetual roses should be set out as early in the spring as the soil will permit, being worked up, but the half hardy and teas, coming from the greenhouses, should never be planted before the 20th of May or the first of June.

We have had fine luck, with the following sorts grown this way: Hybrid Perpetuals, Hugh Dickson, Baron de Bonstettin, Captain Hayward, Clio, C. F. Meyer, Eugene Furst Druskli, Mrs. John Laing, Madam Plantier, Paul Neyron and Magna Charta. Hybrid Teas: Kaiserin A. Victoria, Mrs. Folley Hobbs, Etoile de France, Oliva, Herz Marie Atoinette, Lady Hillingdon, Sunburst, F. R. Patzer and President Taft.

A sunny location, a rich soil with frequent syringing and co-

pious and frequent waterings in dry, warm weather, will insure you success. He who can grow, pluck and see the beauty of an opening rose bud, while thus employed is basking the finest element in his being in a sphere of eternal bliss that has no equal unless it might be the drinking-in of the beauty, effulgence and fragrance of a May morning walk in an apple orchard, with the oriole flitting through the bloom-laden boughs.

The Balsam Fir

Seed Sowing

The best time to sow the seed of the balsam fir, or balsam, as it is usually called, is from May 15 to June 15. If the seed is sown after warm weather begins, germination will not be retarded, and hence will be more even. The seedlings will also be stronger than they will be if the seed lies in the ground indefinitely.

The same general rules for the sowing of balsam seed will apply to most conifers.

When possible, select a light, well-drained loam soil for the seed beds, and stake off the site into beds four feet wide and the length desired. Spade the beds to a depth of about 6 inches and rake carefully to pulverize the soil and to remove all rubbish. Leave the centers of the beds an inch or two higher than the sides, and the entire beds an inch or two higher than the paths. This will prevent water from standing in the beds.

Provide shade frames which will give from fifty per cent to seventy-five per cent of shade during the first and second seasons. Stakes may be used to support this shading, or a frame four feet wide, about ten inches high, and twelve feet long may be constructed. Over this frame

may be placed a lath frame with openings between the lath equal to about two-thirds of the width of a lath. In addition to the frames, provide some coarse hay or burlap with which to cover the beds during germination to retain the moisture in the soil.

When the necessary shading is provided, saturate the beds with water, allow to stand an hour or so, and fill all depressions with moist soil. Smooth the surfaces of the beds and firm them with a roller or pressing board. Take eight ounces of seed (varying with other species), and scatter evenly over the surface of each 4 x 12 foot bed, other lengths in proportion. Press this seed into the already firmed surface, and sift light soil over each bed with a sand screen to a depth of one-eighth inch to one-fourth inch. The bed is then ready for the burlap or hay.

A mulch of burlap is much better than a mulch of hay, because it can be removed quickly and the progress of germination can be watched closely. When the seed is covered, cover the entire frame, sides and all, with one thickness of burlap. Place a support underneath the burlap so it will not come in contact with the soil, or this will cause it to rot quickly. Place the lath shade, or other shade of equal value over the burlap, and proceed in this manner until all the beds are covered.

After the seed is sown, the beds should be watered as often as is necessary to keep the surface moist. During prolonged rainy weather the beds should be aired frequently to prevent mildew and rotting of the seed; but at no time should the beds become dry.

If the weather is warm, balsam seed should germinate in from

(Continued on page 119)

CRANBERRY NOTES

By J. W. FITCH

Spring Killing of Cranberry Vines

This is the season of the year when the cranberry growers must be on guard and take precautions not to let the cranberry uprights remain uncovered and exposed to the cold, dry winds and severe night frosts of the season.

Cranberry vines will withstand the hardship of severe exposure late into the winter (November, December and January), while in a dry state, and not having been submerged, which sometimes happens to cultivated bogs and invariably is the case with the vines on wild areas. Where the covering of snow for the winter covers such unsubmerged vines late into March the vines can withstand other exposures during spring, owing to first, a dry condition of the vine, which has not been submerged in a winter flood; second, the usually sheltered position of the vines on wild areas, and third, other vegetation, such as low brushes and grasses growing intermingled with the vines.

With the cultivated cranberry vines it is different, the surrounding country is quite open sometimes for miles around, thus permitting the free sweep of high winds at this season.

Where the bogs have been submerged with good depth of winter flood water applied in November or December to permit the vines to freeze into the ice, the protection is more certain while the ice remains on and cover the uprights, but with severe thawing in February or March, there is danger of the uprights being exposed, and unless resubmerged until about the

middle of April, there is grave danger of injurious effects of early exposure after the vines have been carefully protected during the mid-winter season, which has really left the vines upon these cultivated bogs in a more tender condition, and susceptible to injury from spring exposure than would be the unflooded vine.

The winter of 1913-14 was an open winter and with a severe thaw in early March much of the winter flood ran off many of the bogs and some suffered extensive damage to their vines, and in some cases the uprights were so badly injured that entire plots or sections had to be mowed to the ground to permit new uprights to grow from the uninjured parts of the vines.

Where the peat of the cranberry bog is shallow, so many on all the ditches are into the subsoil, which often is sand, the seepage of the flood water is so great that after the surface eight to ten inches of the flood has frozen, the remaining water in the ditches seeps away and this gives the surface water a chance to drop down into the empty ditches and thus exposes the tips of the uprights (which is to the fruit bud of the cranberry) the first possible injury unless immediate reflooding is resorted to.

There are seasons that are sufficiently favorable so no injury would be caused by exposure at this season, but it is a much safer policy where possible to maintain the winter flood to help the vines submerged until the middle of April.

Growers, of course, realize that at times of severe thaws

some water must be drained off to keep the ice from raising and thus pulling out the vines. This, therefore, necessitates reflooding when the ice has disappeared, and thus submerging the vines again.

Stop-Waters

Lucian J. Fosdick, Boston

On many cranberry bogs, the lower ends of the ditches, will be full of water, while the upper ends will be dry; consequently, the vines at lower ditches, are too wet, and the vines at upper ends, are too dry. To overcome such conditions and to equalize the water levels, stop-waters or gates, in the brook, or main ditch and in the shore and sectional ditches, will enable the grower to keep the water at the desired level, which should be varied according to the time and season; early in the season 4 to 8 inches from the level of the bog and later 10 to 15 inches is a good average.

The writer has found stop-waters built of stone, to be economical, practicable, durable and easily built and they will conserve a small quantity of water, to the great advantage, of the cranberry vines.

Getting Better Prices

There is a considerable amount of fancy cranberries still in the growers' hands. Market prices are unsatisfactory. Why wouldn't it pay some enterprising grower to make up an attractive package, say eight quarts in a pasteboard carton, and canvass the retail trade for orders? Such a package should find a ready sale for household use and better prices ought to be obtained than can be got of a jobber. We believe that the selling of cran-

berries has gotten too much into a rut. The sales follow the same channels year after year and little effort is made to distinguish between the fancy lots and the ordinary stock. Cranberries in a neat carton, with attractive labels and containing a book of cooking receipts, ought to appeal to the housekeeper and lead to a sale that could not be made from a barrel in the grocery store.

When Oregon came into the market several years ago with a big crop of apples it had to compete with an enormous crop of Eastern apples. It was realized that the usual method of selling would not bring remunerative prices, so the growers carefully picked their apples by hand, polished them to bring out the color and shipped them in boxes. The result was that they got the fancy trade and sold them in competition with the Eastern apples at greatly increased prices and have been selling them that way ever since.

Cranberry growers have not given much individual attention to the selling end of their business. They have been content to leave that feature to others, which was all well enough when high prices prevailed, but all business today is turning over on a smaller margin, greater attention is being paid to efficiency, both in manufacturing and selling, and the cranberry industry must adopt the same methods in order to realize a profit.

Selling Cranberries Direct

The Central Cranberry company of Brown's Mills, N. J., has opened an office in Philadelphia to sell cranberries direct to the retailer without any intermediary commission house. The reason assigned for this venture is the fact that this has been a bad season for those handling

cranberries. An inferior article, largely sold by the chain stores, has been dumped on the market at prices which do not pay for the picking. Besides, sugar is high, other fruit plenty and money scarce. These adverse conditions have led to the action taken by the Central Cranberry company.

—Wareham Courier, Mass.

Green Berries

I like the *Wisconsin Horticulture* and your articles especially.

The shipment of green berries to market is an outrage on all good cranberry growers and its a *hog it movement* to get ahead of the game to beat other growers. I am informed that the party who did this on the Cape this season is one of the "directors" and "inspectors" of the Sales Company. He shipped his berries into the market early to get a fancy price ahead of his neighbors. I am sorry that he should have done this and for his loss, but it would seem to me that the Sales Company ought to control so rank a folly as this.

My picking of cranberries does not begin until the 5th to the 10th of September, and I always begin on my early varieties first, and with these where the vines are thin and the berries open to the sun so that they are in good color when picked.

Wish you would give us in the *Wisconsin Horticulture* some of your good cranberry cooking recipes from time to time.

I think that you have done your part, for years, to help the good work along, and hope you will be blessed with good health for years to come to continue in the good cause.

Lucian J. Fosdick.

Pruning Fruit Trees

A TIMELY TOPIC

The best time to prune fruit trees is in March or April, after severe freezing weather is over and before growth starts. If it cannot be done then defer the work until mid-June or early July. Do *not* prune during the period of rapid growth.

The best tools to use are a curved blade pruning saw, costing 75 cents, and a "hawk-bill" pruning knife. For use on old trees attach the saw blade to a fork or rake handle.

Pruning young trees, one to seven or eight years planted, is mainly for the purpose of shaping the tree.

Remove branches that tend to form sharp crotches; take out many of the branches growing toward the center of the tree, just a little of this every year.

In the case of old neglected trees cut without mercy. The top is undoubtedly a mass of brush, decayed limbs and watersprouts. Instead of snipping at all of the little ones, take out some of the big branches and let daylight in.

Do not leave stubs. Cut close to the main branch or the trunk. This advice is older than the big trees of California, but seems to be always new to some pruners.

These are general principles; very general. For specific advice "ask questions."

Ask questions. If there is anything you want to know, no matter how simple or how complex, write to the secretary, who will get an answer for you.

The best, surest and quickest way to get a new member is to nail him on the spot by saying: "Give me half a dollar."

Michigan Experiences With Co-operation

Prof. H. J. Eustace, Lansing, Michigan.

Attempts by fruit growers of Michigan to cooperate in the selling of their products were made nearly a quarter of a century ago. In 1890 the fruit growers in the vicinity of Benton Harbor saw the need of an organization that would elevate the standard of their work and facilitate sales. After many meetings the Michigan Fruit Exchange was organized. About fifty growers subscribed to the articles of organization, which were strong enough and based upon good business principles, with the exception that there was no provision for the actual inspection of the fruit. An inspector was employed, at a salary, and his business was to visit the different growers, examine their pack and, if approved, leave a stamp which was to be pasted upon the package, guaranteeing its uniformity and requesting the purchaser to report back to the exchange giving the number, of any fraud found in the package so labeled. This whole scheme was based on the theory that fifty or more men would be strictly honest because they had signed articles to that effect, and that no rigid inspection was needed. This was the undoing of the organization. These same men packed their crates just as they always did with all grades of fruit and put the stamp of the Michigan Fruit Exchange upon them. If the fruit was so poor that they were ashamed of it they put a stencil with the number on it in place of their name. This was the way that these growers launched their new enterprise upon the public in Chicago. The

city buyers met the shippers fairly thinking that there was a show for a square deal, but in less than two weeks the stamp had no character on Water street, and, as Mr. Roland Morrel says: "the Michigan Fruit Exchange went quietly 'where the woodbine twineth.'"

A sidelight on the history of this attempt is interesting. Among other matters decided upon during the conference which led up to the organization was the size of the packages to be used. This was thoroughly discussed by the growers, and the basket manufacturers were present as guests of the meeting. The members agreed unanimously to use nothing but full standard size packages. The manufacturers made up several thousand crates and cases after thus being assured that the growers would use only this standard size; but when the berries ripen the good members would go to the basket factories and call for the "smallest snide" packages they could get and out of all who signed the articles of organization only five called for the packages that they had agreed to use. The manufacturers were left with thousands of packages upon their hands which they had great difficulty in disposing of, requiring fully three years to get rid of the stock they had every assurance in the world would be used promptly.

The Fruit Growers' Central Packing Company was organized at Fennville in 1897 by a stock company of twelve of the largest peach growers. A building was erected and equipped for a central packing house. A man who had been a successful manager for a cooperative fruit association in another state was secured as manager. The peaches were drawn to the packing house

in five-eighth bushel boxes, several grades were made and a market for seventy-five to one hundred cars was found at better prices than could be obtained of the local buyers. There was some loss in packing at a central packing house, due to bruises in hauling. The "Company" fruit was twelve to twenty-four hours later in reaching the market than that of the growers not members. These growers, using the women and children of the home to do this work, would pack about as rapidly as the fruit was picked, while members picked until about three o'clock and then had to haul to the packing house, where the packing would not be finished until very late, sometimes midnight. There was always considerable complaint, by some members, about the loss of the opportunity to use this home help. The initial cost of the packing house and equipment and the constant expense of insurance and interest on the investment had to be provided for, but the organization flourished and doubtless would have continued its existence except for the fact that peaches were such an uncertain crop—the big freeze 1906 destroyed so many trees that not enough acreage was left to warrant continuing the organization.

A similar cooperative association was organized at Shelby, to pack and sell peaches. It was successful for a time until compelled to disband on account of inroads made by diseases in the acreage of peach orchards.

Conclusions from these experiments indicate that heavy initial expenses are hardly warranted for uncertain crops.

During the apple shipping season of 1911 another association was launched at Fennville, almost unconsciously, and its

history up to date is of more than ordinary interest. During that fall, the town, as usual, was filled with apple buyers, brokers and jobbers. They did not find the growers disposed to accept the prices they quoted and really became very arrogant and even insolent. The usual time for closing sales was past and practically none had been made. For the purpose of discussing the situation the growers got together one afternoon. There was much to talk about. There was no organization of any kind or nature—all growers were welcomed and a large number were present. The following day the buyers were willing, even eager, to pay fifty cents and more a barrel than they were offering the morning before the general meeting—quite a satisfactory afternoon's work for the growers in the vicinity of Fennville.

The success of this unorganized meeting led to the formation this fall, of the Fennville Fruit Exchange with about one hundred members. One of the first matters considered by the members of this exchange was the way to secure a uniform pack. The cry for this demand had been long and constant. The prevailing uncertainty and unreliability of the general packing had been the constant complaint of the buyers and the consumers; so one of the first things decided upon was to put up a uniform pack. A building for a central packing house was not available. The fruit had to be packed in the orchards but the grower had no voice in the grading: this was done under the supervision of a man hired by and responsible to the exchange manager. A fancy grade was packed according to the Sulzer bill. This meant a better grade than usually goes into the ordinary

pack which is good fruit except for some slight defect as a curculio or scab spot.

It was supposed by the members of the exchange that the buyers would welcome an opportunity to buy large-sized shipments of apples of one variety, packed in a uniform way. In the past this had been impossible, due to the fact that some growers did not know how to pack, judgment differed, and, in some instances there was probably real dishonesty. After all this effort and expense of the growers the buyers went right out among the growers not members of the exchange and paid them as much for their "general run" fruit as the exchange was asking for its fancy grade. Why did the buyers want to do this? In addition, they had to keep a man on the ground to see to the loading of the cars and pay hotel and living bills and often advance money on sales, when, if they bought of the exchange all of these expenses would be saved and no money advanced until the fruit was loaded into the cars. Most of the buyers were brokers who buy for the large dealers. They, of course, see that where the exchange is accomplishing its object of securing a line of trade direct with the smaller dealers who supply the local market, the business of large dealers will be cut off or reduced. They can well afford a sacrifice if it will break up the exchange; and even the men sent out by the exchange to solicit orders did not meet with the success the members expected or hoped for. Many dealers who supply a local and constant demand were unwilling to pay much more for fancy grade fruit than for the ordinary run pack. Quite a big temptation and really a severe test of loyalty for some members, to drop out of the

exchange and pack and sell in the old way.

From this experience, at this time, it looked as if the attempt to put up a uniform grade of fancy fruit was a losing venture for the growers. It was expensive to grade as carefully; fruit made up of one grade could be run into a barrel rapidly and what was left was left after the "fancy grade" had been made up, had to be sold at fifty to seventy-five cents per barrel less than the ordinary or orchard-run would sell for. The expenses of the exchange had to be paid, together with the unfriendly feeling of the buyers and brokers. Apparently the growers not in the exchange got more money for their apple crop this year than the members did. But there cannot be any doubt but what the exchange has helped the entire community. Had it not been in existence prices would have been generally lower. It was not organized for this year but for the future, and its members are hopeful.

Grapes have been extensively grown in a region in Michigan for more than twenty years. As the acreage increased more rapidly than the facilities for distributing and selling them at a living profit cooperation became desirable and even necessary. The hotels were filled with buyers. Apparently they had co-operated to regulate the price they would pay, as all quoted the same for the same day. Consigning fruit to commission houses in Chicago and other cities did not bring any better returns than selling to the buyers. Cooperation became absolutely necessary and under such conditions that it is most likely to be successful.

The Michigan Fruit Growers' Association was organized and

started in operation in 1899. Better prices were realized than for several years. But the weather during the shipping season was hot and shipments were made in un-iced cars. The fruit spoiled, and for this the manager was blamed and asked to resign. The next year he was active in forming another association, the Michigan Fruit Exchange. Competition for sales between the two associations, of course, developed and the dealers were quick to make the most of it. One exchange would be played against the other to secure a lower price. As acreage of vineyards extended into nearby territory, another association was formed, but in no way connected or affiliated with either of the existing exchanges, thus making competition all the more severe; one would have to cut under the price of the others to secure the orders. Then came the bumper crop of 1911 and this, together with the competition among the three associations, resulted in a low price to the growers. They were practically in the same position they were before cooperating. Something would have to be done if grape growing was to continue on a profitable basis. It would be impossible to unite the three associations. The members sided with the manager of the association they belonged to in small differences and petty quarrels. After a large number of meetings a suggestion was made that if the three associations could agree upon one man to act as a go-between, to be known as an "arbiter," whose duty it would be to inform the officers of the associations what price the others were quoting, that the cut-throat competition could be eliminated. This arbiter is clothed with the power to examine the books, letters and tele-

grams of all three exchanges. The members think it has been worth while. However, there is no doubt but that the entire scheme is a makeshift and unsound in principle. The managers of two of these associations receive as their salary a certain amount for every basket shipped through the association. They were the richest men in the region at the close of the 1911 shipping season. In none of the associations is there a rigid system of fruit inspection: without doubt much better prices would be obtained were this efficiently done. To fruit growers about to form cooperative associations the danger of dissatisfied members leaving and starting a competing association should not be overlooked.

That cooperation among fruit-growers will not be successful unless they are really enthusiastic about it was again demonstrated by an attempt to induce the growers in the vicinity of Traverse City to organize and join a cooperative association. The writer chanced to be present at one of the preliminary meetings. The lack of the evidence of a spirit of cooperation among a large number of those in attendance was conspicuous. Some had agreed to join and ship all of their fruit through the association, but apparently this fact did not enthrall the smaller growers. Some of the men who were to be officers of the association were city business men and not actual growers. This was not kindly received by the producers. A start was made but by August business was so small it was abandoned. The real necessity for a cooperation was not keen; the attitude toward it was not enthusiastic and it is not to be wondered at that the association met an early death.

An example of a young successful association is found at Northport, a region excellent for fruit growing but somewhat inaccessible for shipping, being at the terminus of a branch railroad. At this place, fruit growing, mostly apples, has recently become of commercial importance. Though many of the growers are foreigners, mostly Swedes, they believed that to cooperate would be for their good. The Northport Fruit Growers' Association was organized. Shares of stock sold for ten dollars. The success of this association so far is, without doubt, due to the efficiency of the manager. He is a practical fruit grower, besides being the village preacher (which he has recently given up, not that he was a poor one, for he was not, but because the community thought he would be of more value to them as the association manager). This year sixty-five growers shipped through the organization, each one packed his own fruit, but signed the following agreement:

Northern Fruit Growers' Association Packing Rules

(Rule 1.) Every member shipping under the association name and label, must sign in duplicate the agreement attached to the rules and file one copy with the Secretary of association.

Specifications for Grades of Apples

(Rule 2.)

(A. Fancy) In this grade all varieties must be a half inch larger in diameter than the same kind in No. 1, every apple of good color and absolutely perfect.

(B. No. 1.) Snow apples and like sized varieties at least two and a quarter inches in diameter.

Duchess, Baldwin and like sized varieties two and one-half inches in diameter. Alexanders, Spies, Greenings, Kings and like sized varieties at least two and five-eighth inches in diameter. In every case Number ones must be free from bruises, worm hole and scab, and a good color.

(C. No. 2). These may be from one-quarter to one-half inch smaller than the varieties in number one, showing some color, and with not more than five per cent with worm hole or scab.

D. Do not pack any early fall apples as No. twos.

(Rule 3.) Other fruit must be strictly first-class in quality. Pack no second-class stock.

(Rule 4.) The growers must in every case be guided in packing by such instruction as may be given by the executive committee, or anyone who may be authorized by them to give such instruction.

(Rule 5.) The grower must deliver his fruit at the time specified by the officers of the association. All settlements will be made through the association.

(Rule 6.) The number on every package is the grower's name, and the grower agrees to take the returns coming to his number, also he agrees to make good any loss complained of by the consumer of his fruit.

I agree to pack in conformity with the above rules, and to use every endeavor to help build up a reputation for honest packing.

Signed _____
Member No. _____

As a check upon the grower, every package contained a card as follows:

This is a (Fancy), (No. 1), (No. 2), package of apples of the _____ variety.

Grown by a member of the Northport Fruit Growers' Asso-

ciation, Northport, Mich., and is packed under their direction.

We are desirous of establishing a reputation for honest packing and we cordially invite and ask the consumer of these apples to write us his candid opinion, referring to the grower's number.

(Note)—We pack three grades Fancy, No. 1 and No. 2.

Grower's number-----

Very few complaints were made. In one case a shipment to Fort Wayne was questioned. The manager made a trip there; adjusted the difficulty by making a slight reduction in the price—the member had to stand the loss, also the expense of the manager for the trip. The returns from the sales were not pooled. Each member received what his fruit brought, less the expense of selling, which is about five per cent. The officers and members realize there are many questions to be solved before they can have a strong vigorous organization, but they have confidence in their manager; they are enthusiastic, they believe in cooperation and are hopeful of the future.

Some of the difficulties, aside from the common well-known ones that confront Michigan fruit-growers who are desirous of forming cooperative associations, might be briefly mentioned. In certain regions there are many growers with a small acreage from whom it would be a tremendous task for any association to secure a uniform quality of any kind of fruit, quality, varieties or packages. If packing was to be done at a central packing house it would be a big undertaking to assemble the fruit.

Another problem is the large grower. Just as soon as a man has acreage enough so that he can make shipments in car load lots, he loses all interest in a co-

operative organization. One of the largest growers of peaches and sweet cherries in Michigan says that he wants the associations to leave him alone.

From past experiences in Michigan it does not seem reasonable to expect that any association will be permanently successful without a rigid system of inspection, and this should be done at a central packing house. Probably the most practical way to go about forming an association is to start with a few growers—men who really mean business and will stick by each other and by the association. A half-dozen men who produce a fair amount of fruit would not be too few. Then, by adopting a brand and packing in strict accord to a standard, there is little question but what a profitable permanent business could be developed and instead of trying to induce growers to come into an organization let them see the benefits to be derived and ask to be taken in and consider it a privilege to become a member.

Do not set seed flats directly on manure in a hotbed. There should be three or four inches of soil to absorb the odor and steam from the manure.

Large beets may be put in moist soil near a sunny window, and give a few crops of greens between now and spring.

Hotbed sash and soil should be made ready soon. In most regions hotbeds may be started in February.

The old fashioned bleeding heart makes a good plant at a corner of the shrubbery and as it is a perennial will return each year.

Simple

A hotbed is a very simple contrivance and very simply made—if you take the word of the fellow who commonly tells about it. Occasionally the beginner will succeed the first time. It is always worth the trying. If you succeed you will have lots of nice early vegetables, lettuce and radishes before the ground is fit to work, very early tomato plants, etc.

On the other hand if you fail to hit it just right the thing either fails to furnish the heat guaranteed in the specifications and it turns out a very *cold* bed, or else it gets to working to beat the band sometime when you aren't looking, the sash is closed tight, the sun comes out, your radishes, etc., are all frizzled up, and you declare it to be an invention of the devil.

It is. However, if carefully handled and directed it may, like other powers of evil, be turned to good account.

Four things are required—plenty of fresh horse manure, which on fermenting gives off heat, a wooden frame not over six feet wide and as long as desired, two feet high in back and one foot in front; glazed sash sufficient to cover the frame (storm windows are good), and careful attention.

If you had the forethought to dig a pit for the manure last fall, very good; otherwise pile it two and one-half to three feet deep on the ground south of the barn or other building, and covering a space one-half greater than area of frame. Tramp firmly, place the frame in position, slope to south, put three to four inches of sandy soil over manure in frame, put on sash and leave to warm up.

These are very elementary directions covering the theory and practice of hotbed making. There is no use in telling all about the many things that will happen to the beginner, these will all be made plain as the season advances. The veteran needs no directions. By all means try it.

Proof

We have been told often that it is possible to have lots of beautiful flowers in the home during the winter months by simply potting a few Holland bulbs in the fall, placing them in the cellar until well rooted and bringing them up as needed; just like putting up jam and canning fruit.

It's true, and the proof is before you. Here we have twelve splendid specimens in full bloom, four double daffodils, three single narcissus and five single hyacinths. The three small hyacinth bulbs were purchased at a "bargain" counter, the others were furnished by Mr. C. A. Hoffmann, of Baraboo.

The bulbs were potted in sandy soil and placed in a cool cellar October 20th. All were brought up at the same time, about December 14th. The bulbs for this beautiful group of flowers cost less than a dollar. If bought at a greenhouse the plants as they appear in the picture on first page would cost somewhere between five and seven dollars. So here you have the picture taken February 14th, and this story. If you want proof ask our bookkeeper and stenographer, Miss Memhard, who grew the flowers.

Only reliable and trustworthy advertisers can buy space in this paper. Patronize these firms and you will be on safe ground.

"Apple King" of Chippewa County Dead

James W. Melville, known to nearly every person in Chippewa county as the "Apple King," was found dead at his home in Lafayette at six o'clock January 1st.

Mr. Melville had been in poor health for some time. Recently he returned from a Christmas visit with his step-daughter, Mrs. Ed Marsh, at Pine Island, Minn., and spent Sunday at the Hotel Royal.

Mr. Melville was born on the same farm upon which he died, sixty years ago. It was his home since birth and his long residence



James W. Melville

gave him a large acquaintance among whom he was held in the highest esteem. He was the first man in Chippewa county to experiment with the growth of the apple, and from his success he attained the enjoyable distinction of being called the "Apple King."

Mr. Melville spent all last winter with a brother in Arizona, in the hope of improving his health by the change of climate. —Independent, Chippewa Falls.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 12 N. Carroll St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second matter May 31,
 1912, at the postoffice at Madison, Wiscon-
 sin, under the Act of March 3, 1879.
 Advertising rates made known on appli-
 cation.

Wisconsin State Horticultural Society

Membership fee fifty cents, which in-
 cludes twenty-five cents subscription price
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Worth Reading.

It is not good policy to print long articles as the elongated story is rarely read to the end. However, the one by Prof. Eustace, of the Michigan Agricultural College, is well worth reading by everyone interested in co-operative selling of fruit. This is a paper presented at the 1912 annual meeting of the Western New York Horticultural Society, and published by consent of Prof. Eustace.

A Change

During the night of February 27, 1904, the capitol building caught fire and burned without check for nearly twenty-four hours, until there was very little left of it. Just a few days previous I had by coaxing and "pull" secured the promise of a big barn-like room in the South Wing, and by judicious use of honeyed words, a few cigars and like means gotten from various corners of the capitol garret and cellar one of the most amazing collections of antique furniture imaginable.

There is where the fire was hottest, and as my carefully collected antiques went up in smoke, there also went all hope of offices in the Capitol for this society for a long, long time.

As office room was then a necessity, the rooms at 24 East Mifflin were rented, and there the society has had headquarters for eleven years.

The completion of Madison's first sky-scraper, the nine-story Gay building on Carroll street, has caused an exodus of renters from holes around the square second only to the Pied Piper's rat hunt.

Among others, I fell a victim to the lure, and with the consent of the board of managers moved to the seventh floor early in February.

Members and their friends are invited to call. Take the elevator to the seventh floor and from our windows enjoy a landscape view scarcely equaled anywhere.

—The Secretary.

A Sponge Garden

Take a large bath sponge (one from the ten cent store is good enough) set it in a plate with water and sprinkle it thickly with

flaxseed, or oats. If preferred a layer of cotton can be used in place of a sponge but either sponge or cotton must be kept wet. (Would not the flax-seed make good flags for a march in a miniature "Japanese garden?")

Law making

The legislative session is now well under way. Over one thousand bills have been introduced up to date, February 18th. Some of them will pass both houses and be signed by the governor. Others will merely pass.

The bills so far introduced which affect fruit growers are as follows:

A bill to change the weight of a bushel of apples from fifty pounds to forty-four pounds.

This measure was introduced by our Senator Kellogg, and seems to meet with favor. It certainly should be made into law, for the present weight is ridiculous—nothing except Hyslop crops can be found that weighs fifty pounds to the heaped bushel.

A bill creating a department of nursery inspection. This was also introduced by Senator Kellogg and is in all respects a worthy measure. Prof. Sanders framed the bill, and he has this to say of it:

A HORTICULTURAL INSPECTION BILL

"The bill, slightly modified to suit Wisconsin conditions, is a copy of the model state horticultural inspection bill adopted on January 1, 1915, by the American Association of Official Horticultural Inspectors, and the Legislative Committee of the American Association of Nurserymen in joint session at Philadelphia.

"Provisions are made for an unsalaried board, composed of the director of the Agricultural Experiment Station, the entomologist, the plant pathologist, the secretary of the State Horticultural Society, and a nurseryman who is to be appointed by the governor.

"The board appoints the inspector, who has immediate charge of inspection of nurseries, nursery products, orchards and private or public premises for dangerous insects and plant diseases. The bill requires the issuance of licenses to nurserymen, dealers, and agents canvassing for the sale of nursery stock, and prohibits the sale of uninspected stock and the sale of stock by an unlicensed person, and attaches a penalty for violation. Inspection of imported foreign stock is also provided for.

"In case dangerous insects or diseases are discovered, the inspector is given authority to proceed with necessary measures for control or eradication. The San Jose scale will be the object of special search in many localities which have not been inspected previously on account of lack of funds.

"An appropriation of five thousand dollars per annum is desired to cover the cost of the present limited inspection, and to provide additional inspection of orchards, particularly in our rapidly developing fruit districts. Every citizen interested in horticulture should lend his aid toward the passage of this bill by the present legislature."

J. G. Sanders.

Several Rabbit Bills. At the 1911 session and again in 1913 we were able to trim the rabbits' tails in pretty good shape, leaving only thirteen counties with any closed season. Now the

"sportsmen" are getting busy. One bill introduced by Senator Bichler provides for a closed season (rabbit protection) in Sheboygan, Manitowoc, Ozaukee and _____ counties, and other and similar bills are on the way. Those bills will be strongly supported by the city "sports" and the game warden's department, and by no others. It will, therefore, be a clear issue as between the city hunters, backed by the game wardens, and the farmers and fruit-growers.

Every person in the state who has planted an apple tree, or expects to plant one; every person interested in any orchard company should use every effort at his command to defeat any measure which will serve to protect this destructive pest.

A Back Yard Garden

Plot 2x8 rods. Shaded on south side by a large building. Heavy soggy soil, poorly drained, some clay, cropped for 25 years continuously. Produced less than \$10.00 worth of stuff in 1900.

1914 produced \$65.00 worth kitchen truck in a bad year, without irrigation or outlay of a cent with labor only mornings and evenings.

Potatoes—"Irish Cobbler and White Ohios."

Sweet Corn—Burpee "Golden Bantam."

Peas—Nott's Excelsior and Champion of England.

Beans—"Golden Wax," Burpee's Bush Lima.

Beets—Detroit dark red.

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Lewis Elithorp.

Clinton, Wis.

Any community that wants to organize a horticultural society may receive assistance from the state society merely by writing to the secretary at Madison. A speaker will be furnished, if wanted, without expense to the community, and also a workable set of by-laws.

A Hanging Garden

If one has nothing green and growing about the house and is so situated that a florist is out of reach try some of the following schemes:

Take a large carrot, cut off part of the pointed end, then scoop out a cavity about an inch deep in the cut end of the top. Now run a wire (I used hair-pins) through the carrot, tie a string or ribbon to it so as to make a loop and after filling the cavity with water, hang it in a window. In a few days a bright crown of green feathery fern leaves will spring from the lower end and grow for some time if the cavity is kept full of water.

Try a large sweet potato, pierced with two wires at right angles, to suspend it in the mouth of a vase or jar of water. Many years ago I succeeded in growing

vines seven feet long around my dresser mirror in this way. Be careful to put the root or lower end of the potato down. Change the water when cloudy, otherwise keep adding to it as it evaporates. B. H.

Salsify or Oyster Plant

It will soon be time to dig the salsify which has wintered in the garden, and only the careful housekeeper knows how much of the charm of this vegetable is enhanced by variety in serving.

Clean thoroughly with brush and cold water. Scrape and throw immediately into cold water with a little vinegar in it to prevent discoloration. Put into boiling water after cutting crosswise into thin one-quarter inch slices. Boil until tender. Save the water and part of the vegetable for soup. Among the various ways for serving are the following:

- (a) Mock oyster soup, see recipe.
- (b) Boiled, served with melted butter.
- (c) Boiled, served with white sauce.
- (d) Mock oysters, see recipe.
- (e) Salsify fritters, see recipe.
- (f) Boiled when cold mix with a little onion and sliced celery, and with or without other boiled vegetables, such as carrots, potatoes, etc., serve as a salad on lettuce leaves, using French, Mayonnaise, or boiled dressing.

Mock Oysters

(Adapted from Mrs. Rorer)

For one dozen oyster plants, scraped, sliced and boiled until tender, drain and mash, add three eggs well beaten, salt and pepper. Drop the mixture by

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teaspoonfuls into a hot frying pan in which there is good, hot bacon fat, and fry to simulate fried oysters. Serve with sliced lemon.

Cream of Salsify Soup, I.

(Adapted from Mrs. Rorer)

Boil the scraped and cut-up salsify in a quart of water with one tablespoonful of grated onion, then add one quart of milk, two tablespoonfuls (level) of butter, and four tablespoonfuls (level) of flour rubbed together. Stir constantly, and serve when it reaches the boiling point. A small piece of codfish boiled with the salsify adds to the flavor.

Cream of Salsifo Soup, II.

Original

Take one pint of the water in which the salsify was boiled, one pint of milk, one cup or more of the left-over salsify, two level tablespoonfuls of butter, two level tablespoonfuls of flour, stir to boiling and serve with croutons.

Parsnips

With the coming of Spring, all who are so fortunate as to have parsnips which have wintered over in the garden will enjoy the eating of them. Be careful not to *peel* them—*scrape* them quickly and keep covered in cold water until ready to cook. Put them in boiling water with a heaping teaspoon of sugar for a small portion. Cook until tender but not soft; cut them lengthwise and serve them in various ways as follows:

- (a) Boiled, served with melted butter and lemon juice.
- (b) Fried in slices.
- (c) Dip boiled parsnips in fritter batter and fry in deep fat.
- (d) Mash, boiled parsnips and make into fritters or parsnip balls.

- (e) Plain boiled, spread on toast, and covered with a cream sauce.

Salsify and Parsnips

In planning the vegetable garden, take into consideration the fact that if planted where it will not be necessary to plough in the Autumn parsnips and salsify can be left in the ground all winter and to dig when the Spring thaws come. One gardener plants one-half each of the parsnips and salsify for fall digging and winter use, and the other half for Spring digging and immediate use in a corner not disturbed in the ploughing.

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is food for thought as well as for crops this year.

When shipments were interrupted by the war, it was estimated that there was enough Potash on hand in the United States to provide two and three per cent Potash in mixed fertilizers for this spring's trade. Some manufacturers had more than enough for these percentages.

Since then minor sources of Potash have been fully utilized, and additional shipments from the usual source are still being received. The supply is below normal, but this need not prevent farmers securing some Potash in their fertilizers, nor should it lead farmers to decide not to use fertilizers.

There is no reason to return to the out-of-date goods without Potash, although some authorities may try to "wish" them on us. We have not used enough Potash in the past. The largest annual import of Potash was only one-seventieth of the Potash *taken from the soil* by our *1914 corn crop* and only one-fifteenths of the Potash lost every year in drainage water.

Spring crops use from two to ten times as much Potash as Phosphoric Acid. Get as much Potash in the fertilizer as possible. A few firms are offering to furnish from four to ten per cent.

There is no substitute for Potash. It may be harder to get just now, but **POTASH PAYS.**

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Lubsk Queen

Editor Horticulturist:—

In a recent issue of the Wisconsin Farmer, Mr. Townsend's very instructive and interesting article on "Orchard Conditions in Richland County," meets with my hearty approval with one exception and that is when he places Wisconsin's queenly



One of Wisconsin's queenly women mentioned in Mr. Moyle's article

women and the queen of flowers, the rose, in a class with the Lubsk Queen apple. I am always ready to take off my hat to the ladies and wear a rose bud in my button hole, but drat the Lubsk Queen apple! The worst deceptive, delusive sham in the way of an apple that was ever palmed off on God's patient poor.

When I remonstrated with prominent horticulturists in the state for recommending it, they all acknowledged it was sour as swill, coarse as a pumpkin, tough as leather and of such low quality and texture that the fruit would invariably dry rot at the core in a few days after picking. But, said they, it has a beautiful skin and will bring

\$6.00 a barrel in Chicago, as fast as we can get them there.

When talking with two extensive growers of Sturgeon Bay, Wis., both admitted that even this beautiful skin was so thin it wouldn't reach around the apple, but would split and crack on one side, a very bad defect with this variety, as fully fifty per cent are thus affected. Blushing out of pure shame, and cracking for trying to be a party in covering up such a mass of pith, cork, acidity and dry rot.

My good old grandmother, with eighty years experience, was taken in. She gathered a few in the orchard and put them in a drawer to sweeten and mellow up. Any one who has handled this apple knows what she found a week later when she took them out and threw them in the swill pail, with a remark suitable for the occasion, as they were decomposed with dry rot from stem to blossom end.

When we come to orchard cultivation Mr. Townsend has got us all on the hip with his hog proposition. Here is success to his genius, and next year I shall look for his orchard report to read: Four carloads of hogs at \$1,000 per car, \$4,000, on the profit side of his ledger.

Furthermore, Mr. Townsend speaks disparagingly of the Yellow Transparent. We have found this a very profitable apple, and know of a party that is fruiting 100 trees and shipping his fruit 100 miles to market, in bushel baskets, very successfully. The secret of handling this apple is to pick it as soon as it is fully developed, before quite ripe. Then it will hold up well for ten days or two weeks.

W. J. Moyle.

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Lettuce, radishes, and onions may be sown in the hotbed as soon as it is ready.

Quassiin a Cheap Insecticide.

Washington, D. C.—Attention is called in a recent bulletin (No. 165) of the United States Department of Agriculture to the possibilities of quassiin as a contact insecticide. There is reason to believe, says this bulletin, that quassiin can be cheaply prepared and possibly sold at a lower price than some of the materials now used in commercial insecticides. The only experiments, however, that have been made up to the present were conducted at Sacramento, California, and it is possible that in a more humid climate quassiin would not be so satisfactory.

Quassiin is the active principle in quassia wood, which is found in considerable quantities in Jamaica. Quassia chips have been employed for many years in the preparation of spray solutions for the control of the hop aphid. The percentage of quassiin in these chips varies somewhat, but it has been stated to be 75 per cent by one author. If this is correct, the bulletin says, it would take only one and one-half pounds of the chips to 100 gallons of spray to make an effective insecticide; 3 pounds or double this quantity, would certainly be sufficient; and with 3 pounds of whale-oil soap at 4 cents a pound would make the total cost of materials for 100 gallons of spray only 24 cents.

In investigating the efficiency of the quassiin spray, the author of the bulletin compared it with a standard insecticide known as nicotine sulphate, a tobacco product. The quassiin he believes to be equally effective.

A few King raspberry plants do not take up much room or require a great deal of care, but they do furnish a very pleasing fruit in their season.

Golden Bantam sweet corn is still one of the best early sweet varieties.

Tuberous begonia bulbs should be purchased now and potted. They may be set outdoors after danger of frost is over.

Include in the shrub order some plants that will flower or fruit in the fall. Snowberry, highbush cranberry, Viburnum, lantana, wahoo, and the bitter sweet vine all carry bright colored berries in autumn.—LeRoy Cade, Associate Horticulturist, University Farm, St. Paul.

Double portulaca, annual delphinium, calliopsis, African daisy and stock are good annuals to plant.

Plant a few trees along the road this spring. They may be either fruit, nut, or elm trees, and should be set at least fifty feet apart.

If you believe in the State Horticultural Society, if you get pleasure or profit from your connection with it, why not invite your neighbor to join? He might also like it. Say to him, "Hand me half a dollar."

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MYERS WAY

Behold the Parable of the Husbandman

He seeketh out a goodly field in the Vale of Eschol; he setteth out an orchard of the choicest varieties, and sayeth to himself: "Go to, I will return after many days and gather the fruit thereof." But alas, he counteth not on the scale, the codling moth, the caterpillar, and all the host of heaven, who hath harvested his crop before him.

Then saith he: "I will get me knowledge and all the wisdom of the ancients." So he searcheth parchment rolls, wherein he readeth of Lime-Sulfur, a certain cure for all the ills that trees are heir to.

He inquireth of the merchantmen, but their wares were exceedingly costly, and he saith: "Go to, my shekels are too hard-earned; I will make mine own Lime-Sulfur;" so he buyeth brimstone and the choicest of lime; he buildeth vats and a mighty steam boiler. He addeth to these a powerful spray-pump; he anointeth his men-servants with choice vaseline; he arrayeth them with slickers and gloves of the purest rubber; he covereth their eyes with windshields; his horses are caparisoned with blankets. With this mighty host, he goeth forth to meet the enemy, in the vale of Eschol; as the sun pierceth the morning fog, he meeteth them in battle array.

At evening he returneth to his tent weary, his men-servants and his horses wounded and battle-scarred, as tho' beaten with many stripes; but lo, he is of a joyful heart, for he sayeth unto himself: "I have fought a good fight; I have saved my shekels; I have overcome mine enemy, the scale."

Lo, at harvest time, a bitter wail is heard, as a man crying for

"CHASE QUALITY STOCK" IS WESTERN NEW YORK GROWN

We are often asked the question, "Why are trees grown in the vicinity of Rochester, N. Y., better than those grown in other locations?"

For the first three years a tree can stand no great drawbacks, and is governed by Nature's laws, the same as animal life; it must start out with a constitution if it is ever to make a vigorous fruit-bearing tree.

It is an acknowledged fact that trees grown in the Lake Ontario region of Western New York have withstood the test of years, and when transplanted to every state in the Union have proved of unsurpassed vitality, and given good satisfaction to the purchaser. The soil is specially adapted to tree-growing and the first thing noticeable to a stranger is the thrifty appearance and fruit-bearing qualities of the trees in this locality. Added to the advantage of soil comes the climate, and in no place within our knowledge is the temperature so even or the sun so obscured in winter. The tender tree is never subjected to those sudden and rapid changes caused by bright, warm days, so prevalent in some sections, and which will start sap in February or March, oftentimes to be checked in a few hours by zero weather—and before the young tree has arrived at the age to withstand these reverses, it has become sickly and stunted.

Buy our Western New York grown piece-root grafted apples for Spring 1915 planting.

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Fort Atkinson, Wisconsin

his first-born, for the scale hath taken the trees and the fruit thereof.

He calleth together the sages and wise men and with anguish of heart sayeth: "Behold, thy servant hath searched the parchment rolls and followed the traditions of the elders, why have I not overcome mine enemy, the scale?" With one voice they reply unto him, saying: "Oh, Sir, thou didst well, but not wisely. The making of Lime-Sulfur is exceedingly simple, but some little thing thou hast overlooked. Go to the apothecaries and buy of them the choice wine of Lime-Sulfur that gloweth with the sparkle of old wine; that maketh glad the heart of man, and thou shalt have peace."

Then he spake unto them again, saying: "Oh, most wise Sirs, once upon a time thy servant in his travels didst spy an orchard most beautiful to behold. The trees flourished as a green bay tree planted by the rivers of water; the fruit thereof was most glorious, and blushed like as a maiden's cheek; no scale molested and many of the insects that maketh waste mine orchards were not there. Then saith I to the husbandman: 'What usest thou on thine orchards?' and he made reply: 'An oil that most marvelously doth mix with water; it biteth not the hands or face, but conquereth the scale most easily. It is called "Scalecide," for no scale can live where it is applied.'

"Go to," the wise men did reply, "true, it will kill the scale, but if thou wouldst kill thine orchard too, use it at thy peril. Use Lime-Sulfur!"

With renewed hope he seeketh out the apothecaries; he poureth out his shekels as water; he buyeth Lime-Sulfur of the choicest vintage; he destroyeth

his boiler and vats, and sayeth, "Now will I overcome mine enemy, the scale."

At harvest time, lo, a great voice of lamentation is heard, a wailing and gnashing of teeth, for even now the scale is increased.

Alas, the years rolled by, and when fain he would forswear and relinquish his orchard forever, he sought again the husbandman and seeth his trees as green bay

trees, his fruit as pomegranates, and saith unto him: "Fearest thou not that thy trees will die?" and he made reply and said: "Lo, these ten years thy servant hath used 'Scalecide,' my trees flourish, my fruit is plentiful, why should I fear?"

And then a sad and wiser man goeth forth at the eleventh hour and buyeth "Scalecide."

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Blackberries

Under good management an average yield of 2,300 quarts of blackberries per acre can be expected, according to a recent publication issued by the United States Department of Agriculture. Where the soil is very deep and rich and the best moisture conditions are found, this may be increased to 5,000 quarts and certain varieties on the Pacific slope have even given 7,000 quarts an acre. The last census showed that approximately 50,000 acres were devoted to blackberry plantations in the United States.

In selecting a site for a blackberry plantation, the most important considerations are the moisture of the soil and the accessibility of a market. The blackberry is a tender fruit, the keeping qualities of which are seriously affected by jarring over rough roads. It is, moreover, essential that the berries should be placed on the market as quickly as possible after they are picked if they are to command a good price. The best land is a deep, fine, sandy loam with a large supply of humus and abundant moisture at the ripening season. On the other hand, the plants are often killed if water stands on the plantation during the winter.

The year before the establishment of the blackberry plantation the land should be planted with a cultivated crop. This insures the thorough rotting of the sod and will help to destroy the cutworms and other insects injurious to the young plants. The soil should be plowed to a depth of about nine inches in the spring and a thorough harrowing should be given the whole field before the plants are set. This is usually done as early in the

spring as the land can be properly prepared. The earlier the plants are set the larger the proportion that live and the better their growth. The roots should be set deeply for the canes break easily if the crowns project above the surface of the ground. The tops should be cut back to six inches or less in length. Cultivation is necessary and the plants should, therefore, be set sufficiently far apart to permit of it.

During the first summer some intercrop may be grown between the rows, which will greatly reduce the cost of the berry field that year. This should be one that requires constant cultivation and at the same time one whose growth will not be large enough to shade the blackberry plants. Such truck crops as cabbage and potatoes are excellent for the purpose, while corn and small grains should be avoided. By the second summer the plants will be large enough to occupy all the space and an intercrop will not be possible.

In both summers, cultivation should begin early in the spring

and be continued at intervals of from one to two weeks throughout the season in order to provide a dust mulch for the retention of moisture and to keep down suckers and weeds. Suckers are apt to spring up from the roots at various distances from the parent plant, especially when the roots are cut. Digging up these suckers is a favorite way of securing new plants, but this practice interferes, of course, with the yield of the berries.

More detailed information in regard to blackberry culture is contained in Farmers' Bulletin No. 643, which has just been published by the United States Department of Agriculture.

In Planning A Home Garden

The size of a family is the governing consideration. With a large family quantity is the first consideration. Plan so that one picking of peas, or beans and etc. will furnish enough for one meal. For a smaller family, there is more latitude both in quantity and variety. With a

Peas <i>W. College</i>			House Let.
.. ..			
Lettuce	Cucumber	Egg Plant	
Peas, Dwarf Champion		Peas, Sutton's Defiance	
" Sweet Sept		Peas Sutton's Defiance	
" Stratagem			Tomato, 12/14/15
Corn, Golden Bantam	Corn Portland	Corn S. Evergreen	
" ..	" ..	" ..	
" ..	" ..	" ..	
	Lima Beans		Tomato 6 Pl.
		Lettuce	
Turnip	Okra	Early Cabbage	
Beans-Fordhook	Beans-Thorburns Bushlime	Cauliflower	
Beets-Egyptian	Beets-Egyptian Turnip	Beets-Defiance Red	Parsley
Swiss Chard			
Beets-Crimson Globe			
Parsnips	Salsify	Currants	
Onion-White Bermuda	Onion-Prijsfeker	Onion-Sets	
Beans-Dwarf Lima			
	Squash		
Mint			

Plan for a small garden

large family in a small garden only the more prolific things should be attempted, as lettuce, radishes, beets, carrots, turnips, onion sets, string beans, cabbage, tomatoes. Note that the space consuming vegetables like peas and corn are omitted. It takes at least a row of peas, sixty to a hundred feet long to furnish enough for eight to ten people, but a row of string beans twenty feet long would furnish enough for a meal for the same number.

Buy standard brands of insecticides, made by reliable concerns. There are a great many brands of adulterated poisons, some of them under trade names, which are adulterated. There is a law in Wisconsin which requires that packages containing insecticides be branded, and providing for punishment for misbranding and adulterating. If violations of this law are noted by buyers, samples should be sent to the director of the Agricultural Experiment Station at Madison for analysis, with a record of date and place of purchase.

Lime-sulphur bought on the market should test about thirty-three degrees or thirty-four Baume, and should be diluted about eight or nine times for a dormant spray and about forty times for a summer spray. For most spraying it does not pay to make lime-sulphur here in Wisconsin.

The progressive everbearing strawberry seems to give the best results of any of the varieties so far. Several growers were quite successful with this variety last season.

Get seedling tomatoes, egg plants and early celery started in the house.

The Balsam Fir
(Continued from page 102)

ten to twenty days. When most of the seed have germinated, remove the burlap, but leave the lath shade on the beds. Sprinkle the beds frequently. The evening is the best time for watering.

Just before cold winter weather begins, cover the seedlings with a light covering of hay or straw. This will prevent winter-killing, and heaving in the following spring. Leave the hay or straw on the beds, until the frost is out of the ground, then remove mulch and place the lath frames on the beds. Balsam and spruce usually require artificial shading for two seasons in the seedbeds.

It is well to remember that the balsam fir is of very little value. It is used to some extent for pulp, but is inferior to other species. The balsam is a pretty

tree for ornamental planting, but is comparatively short-lived, which feature makes it an undesirable tree to plant when compared with many other species.

W. D. BARNARD,
Forestry Assistant.

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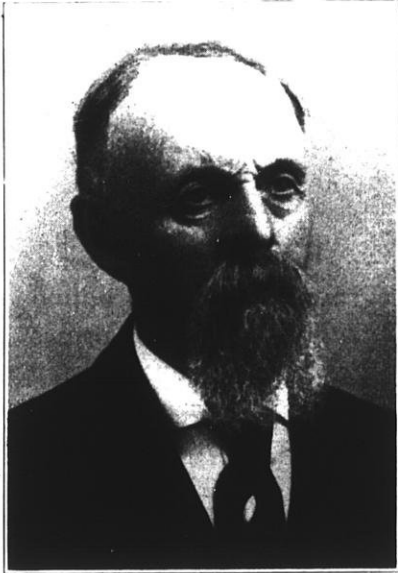
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THE GREAT NORTHERN NURSERY CO.,
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Personal and confidential: The photo that I am enclosing shows my faithful dog Jack in the background. This is a trade-mark no other nurseryman can use for he never would be found in any other nursery. I don't believe a better block of apple trees was ever grown in Wisconsin. Don't they look it?—M. F. F.

M. V. Sperbeck Passes Away

Martin V. Sperbeck died of pneumonia at his home in the town of Algoma, February 3rd, 1915. Mr. Sperbeck was born



M. V. Sperbeck

in Schoharie county, New York. He came to Wisconsin in 1856, and settled in the town of Omro.

Mr. Sperbeck was an active and enthusiastic horticulturist, having been a member of the the State Society for many years. He served on the executive committee under Dr. Loope's administration. He was also an active member of the Oshkosh Horticultural Society, a regular attendant at its meetings and giving every interest of the society his heartiest support. Mr. Sperbeck was an enthusiastic orchardist, having quite a large orchard. He originated a fine crab apple, which he named the Gillflower crab.

Some of the early fruits, as Compass cherries, may also be made to flower by putting them in water in a warm place.—Le-Roy Cady, Associate Horticulturist, University Farm, St. Paul.

Nasturtiums will do well in almost any soil, but if they are planted on very rich soil, too much growth of vine results at the expense of flowers.

Plum and nut seed, that have been stratified and stored in the cellar, may now be brought up, thoroughly watered, and placed outside to freeze.

Do you want to buy, sell or exchange land, tools, seeds or plants. Advertise in *Wisconsin Horticulture*.

Orchard and Garden Notes.

Test all seeds on hand. Flannel and blotting paper are good materials to use.

Don't forget to include some of the Spencer type of sweet peas in the flower seed order.

To grow a good crop of onions requires rich soil, free from weeds, and thorough cultivation.

Branches of pussy willows brought into the house now and set in water will soon open up. They make good bouquets.

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are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

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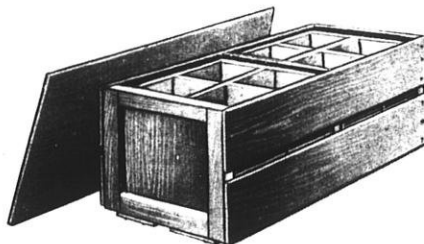
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Snow Dudley,
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WISCONSIN HORTICULTURE

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Volume V

Madison, Wisconsin, April, 1915

Number 8

Flowers That Will "Make Good" in Your Garden

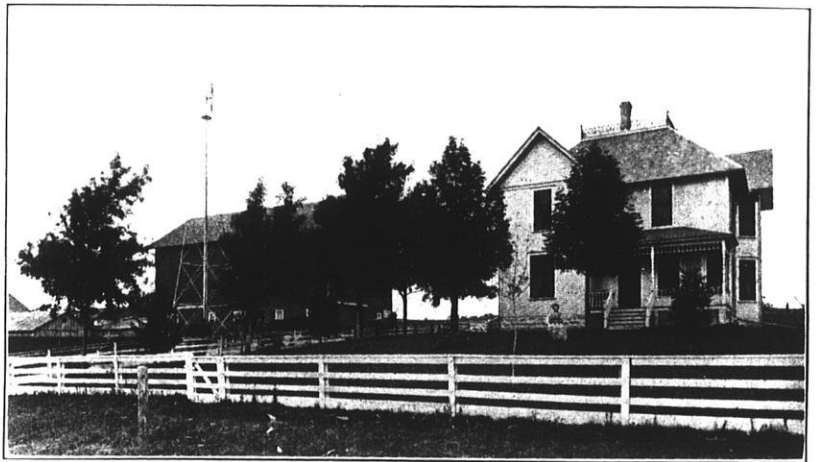
Many people at this season of the year are considering what flowering plants they shall put in their gardens. The average housewife, who has not much time to spare on the matter, the child who is just becoming interested in growing plants, and the teacher who is laying out a school garden for the benefit of her pupils will undoubtedly welcome some simple suggestions along this line. The United States Department of Agriculture's specialist particularly recommends as satisfactory and easily-grown flowers, the ageratum, the nasturtium, the petunia, the California poppy, and the zinnia. Here are a few pointers on each of them:

Ageratum—The ageratum is one of the few blue flowers we have. In its form it somewhat resembles the heliotrope but has no odor. Ageratums grow well upon almost all soils and through a wide range of climate. For that reason many combinations with them are possible.

The plants are neat, bushy, and erect, and produce a profusion of brush-like flowers throughout the season. The dwarf blue sorts make fine borders and are much used where contrasting

in well-prepared beds in the open. Seeds sown in August will produce good plants for winter flowering.

Nasturtium—The large seeds of the nasturtium require to be



Everything about this farm home indicates prosperity and what is of more importance, a regard for appearances. A lawn mower is here considered a necessity rather than a luxury. Trees have been planted for shade and ornament.

Some of the niceties of landscape art may have been overlooked but the right spirit is shown. At least this much is due from each of us to the community in which we live.

color effects are desired. For early bloom the seed should be sown in cold frames or in boxes in the house early in the season (March), but for summer and fall bloom the seeds may be sown in April or early in May

planted much deeper than the fine seeds of the petunia. Sow them in rows where the plants are to grow, placing the seeds about 6 inches apart in the row and cover them about an inch deep. When all plants are up,

thin so that they stand a foot apart if the soil is rich; if rather thin, it will be as well to allow them to stand at the planting distance. The plants should be given clean cultivation to induce rapid growth. If planted in the open at the same time that beans are planted, very satisfactory results will follow. For earlier bloom plant in advance of this date in hotbeds, cold frames or window boxes.

Petunia—While the petunia grows readily and rapidly from seeds sown in the open about corn-planting time, earlier bloom can be secured by sowing the seed in window boxes or hotbeds and transplanting the plants once before placing them in the open. For localities north of New York the most satisfactory method of handling these plants will be to start the seeds in window boxes about April 1, and to transfer the young plants to the open when the weather permits—about the middle of May. The seeds are very small and should not be covered with earth in the ordinary way. They should be sown on the surface and brought in contact with the earth by firming it with a board.

California poppy (Eschscholtzia)—The eschscholtzia is an annual of striking character both as regards the form and color of its flowers, which are bright and rich in their tints of yellow and orange. The plants average about a foot in height, have attractive silvery foliage, and produce their large poppy-like flowers quite lavishly from early spring until frost. The seeds of eschscholtzia may be sown in window boxes or in a hotbed in March, or in the open where the plants are to bloom as soon as the soil is in fit condition, in April or May in the latitude of New York. In latitudes south

of New York the seeds may be sown in the autumn for early bloom. The plants enjoy a rich loam and should be allowed about 5 or 6 inches of space in the row. When used in beds they may be sown broadcast.

Zinnia—The zinnia is easily grown from seed sown in the open ground. When sown in April the plants will bloom abundantly and continuously through the entire season. During the month of August zinnias are at their best. To secure large flowers and a profusion of bloom the plants must be given ample room for full development, as well as an abundant supply of food. Strong, rich soils suit the zinnia. If the seeds are sown in a dwelling house or in a hotbed in March and the young plants are pricked out once or twice before being placed in their permanent situations, more satisfactory results will be secured than from outdoor-sown seeds unless equal care in thinning or transplanting is given. In addition to their use in the school garden, zinnias can be used for groups, beds, borders, garden lines, and summer hedges. Their average height is 1½ feet. The zinnia is a rather large, formal flower whose colors range through the shades of red and yellow. Their season of bloom is through the late summer and autumn and the individual bloom lasts for a long time both on the plant and as cut flowers.

Plant a few herbaceous perennial flowering plants this spring, such as pyrethrum, boltonia, iris, or even some of the lillies, such as *Lilium elegans*.

Jardinieres in which water is allowed to stand make good graves for house plants. Keep them free of water if you want healthy plants.

The Banana Apple and the Spraying Problem: also Marketing

The Banana is the best quality apple I am raising. I got the cions from a friend in Nebraska nine years ago; grafted short root on long cion and have been set in orchard six years. They were very rank growers in nursery but the second winter after being set were nearly winter root killed by hard winter, but really lost only two of seventy set. They however did not leaf out until late in July. I cut off all branches to five or six short stubs and they made a fall growth that went through the next winter all right and have done well since. Fruited 2 bus. 1913 and again as much last fall. I am going to top work some of these. It's great fault is late fall growth.

The spraying problem is one that gives me great concern. To know that you are doing it right and at proper time, whether it is really needful or what the results are going to be, one is all in the blind. I went over mine twice last year, had no codling moth but scab was present in places and absent in others only a few trees apart. I shall give the third spray this year. The outlook for fruit buds is fine at this time.

I am also thinking a great deal about the chances to dispose of a large crop of fruit should there be one. I am inclined to look for outlet through the canning industry as I am interested in canned peas. I can not see why fruits cannot be commercialized the same way.

Silas W. Phelps.

Don't forget to spray all apple and plum trees this spring. It pays.

CRANBERRY NOTES

By J. W. FITCH

Credit for the excellent article on Spring Killing should be given to Prof. O. G. Malde of the experiment station. It has been quite commonly thought that the bud was quite hardy until it began to swell and may explain some of the mysterious lack of blossom in the past.

Prof. H. J. Franklin's report of the State Bog at Wareham in the Courier is a most interesting one and should be especially so to those Wisconsin growers who are troubled with the tip worm. Prof. Franklin is hard on the trail of this insect and his advice is to resand every other year, as the best aid so far known to keep down the damage from this source. From this report it seems that on Cape Cod they are having to combat the work of several insect pests which are apparently strangers to Wisconsin, and yet they are able to turn out enormous crops of cranberries every year.

Considerable resanding was done in the Cranmoor district this winter and growers should watch the effect on the different worms. It is somewhat strange that after the many warnings given by the Station and experienced growers only to resand or sand for the first time vines that can be drained without lowering the water on the unsanded portions, growers will start in and sand sections in the middle of their bogs where proper drainage cannot be given without hurting the sections below them. Without proper drainage the sand is of little value, inviting the growth of sphagnum-moss, and grasses, and cause such growers to say that sanding does not pay.

The question of early or late drawing of the water has become so closely related to control of the worm pests that it is entirely a question of such conditions with each grower.

One of the results of this, the first really unsatisfactory season since the Sales Companies were formed, is the arousing of a great deal of discussion and remedies for its prevention and it may really be worth all its cost. While it may be that some berries will have to be dumped, when we consider that the crop totaled 625,000 barrels almost twice that when the Sales Companies were formed with the unsettled condition of business and the admitted poor quality of the crop in general, is it not really remarkable that many more were left unsold? And had the crop been of fine quality, is it not possible that all would have been consumed even this season?

There is one thing that growers will have to learn. The crop is now so large and the season so extended that carelessness in packing is most disastrous. Years ago when the crop was consumed mostly around Thanksgiving, the crop was hustled into the barrel and consumed in a short time. This is the condition some years now and the poor packer's berries go as well as the good packers, but it is when orders are not confirmed and berries have to be held that poor methods show up. Of course the ideal remedy is the central packing plants where berries can be cleaned up as sold and a few seasons such as the last may drive the growers to some such plan. But there

is no question but that much better packing could be secured by more rigid inspection. The tendency has been to get the berries into the pool where the growers felt comparatively safe and where the berries had to be held, they were then pooled in spite of poor keeping. As a matter of fact, the poor packers are pretty well known at headquarters, and in order to relieve the inspectors of a very unpleasant duty, a complete report of the condition of each grower's berries whether good or bad keepers should be sent the grower and inspector, and would, it would seem, cause the packer to use more care as continuous carelessness would debar them from pooling when his berries did not keep. Also growers should be notified promptly of any fault with the pack. The fact that this season berries from careful packers kept well indicates that much improvement can be made along these lines.

Planting Cranberries

I am sending you a little item which may be of interest to your readers and benefit to some beginners in cranberry culture, describing our method of planting and also the storing and caring for the vines before planting. As the vines must be cut for planting while in a dormant condition, they must be cut early in spring and all at one time where one is having them shipped. In this way we have a carload or more on our hands to care for while the planting is in progress. The preparation of a bog has been explained before in these pages so I'll omit that.

(Continued on page 127, col. 2)

South Dakota Horticulture

C. L. Richardson of Chippewa Falls, or thereabouts, attended the winter meeting of the South Dakota Horticultural Society held at Yankton in January and has turned in a complete and snappy report of the proceedings. A part of it follows and other choice bits, or bites, appear elsewhere.

"*Market Gardening*" was the title of a paper by J. H. Barry, of Armour, S. D., pungent as the onions that he grows. He emphasized the importance of the two bones—"wishbone" to tell what you wanted, and "backbone" to get out and fight for it. To be successful the gardener must like his business; then he has a cinch, for there is little competition. Even the farmers are willing to buy. Too much of the garden truck is six or seven days old—"but what care I when a new sucker is born each minute and fishhooks are getting cheaper." Quite a discussion ensued concerning tomatoes, the Earlibell, Earliana and Empire Queen being best liked of the earlies. The N. Y. Experiment Station reports out the Earliana most favorably of 122 varieties. Livingstone's Blow seemed to be leader of the market. There was considerable loss from tomato rot, especially in hot weather. Different varieties were attacked in different seasons, some escaping one year and some another. Livingstone's on account of firmness and slow turning is the best shipping tomato.

"*Growing and Marketing Strawberries*," by Elmer Reeves of Waverly, Iowa, was an able exposition by an experienced grower. He contended that the beginner select standard varie-

ties, that the ground cannot be too rich but should be clean and free from weed seed, that fall plowing conserves moisture and kills cut worms and other insects, that only strong plants should be set, and that fall planting was often desirable. He emphasized the importance of firm setting so that the plant could at once absorb water; his planting, spacing and cultivation were typical except he sets his rows three and one-half feet apart. In renovating, the plants are allowed to fill the space between last year's rows and these rows are cultivated up. The cost up to picking is about \$60 per acre—which seems a conservative figure. A bed can be kept one to three years, depending on the June Grass, which seems to be the most serious pest. An odd point is that Mr. Reeves does not believe it is of any use to pick off the blossoms the first year unless plants are to be sold therefrom; in that case it is necessary to prevent seedlings from springing up. The Senator Dunlap is the most valuable of the standards, and he does not think highly of the pistillate varieties. In answer to the statement that until the advent of the Dunlap there were few, if any staminate as productive as the Warfield, Crescent and Haverland, he dodged the question by contending that these varieties were not really pistillates at all, and citing many instances in which they had produced excellent crops when set entirely alone—a result decidedly at variance with the writer's experience of twenty years.

The speaker was favorably inclined toward the fall bearing varieties, and liked Progressive best of all. The ever-bearers produce a crop the same year

they are planted—which is a great advantage. They should be irrigated if possible, and will amply repay it. Plants should be bought as near home as possible—long shipments do not pay. Dig out the white grub whenever discovered and fill in the vacant spaces.

The difficulty in dealing with the leaf roller, Mr. Reeves faced squarely, admitting his experience with sprays had been largely unsatisfactory; that he picked off and destroyed the rolled leaves and burned and cultivated his beds after picking. Leave the poor berries on the vines; it is better than putting them in the boxes. The folding box ready made, is the most convenient. Do not undersell your merchant—he must have a fair margin to work on. The local markets in Iowa do not take as many berries as they did twenty years ago, due to the southern shipments, the rise of the plum and other fruits. Hence the outlook is not encouraging. Only fair returns are to be expected, \$100 an acre is above the average, perhaps. The Aroma, Black Beauty and Grand Marie are good varieties, the Crescent, Warfield, Bederwood and Americus not so good. Prof. Hansen said that the South Dakota No. 1 and 2, with one parent, the native wild strawberry, were small but hardy, resistant to drouth and great plant makers. These two and the Dunlap are apparently about all the kinds that are grown.

The clover-head flowers of rhodanthe attracted much attention in the garden last year. It is an everlasting, coming in mixed colors, and may be lifted and used as a pot plant in autumn.

Ask Questions

Ques. (1) I am going to plant one half acre to apples, plums, cherries, currants, gooseberries, raspberries and blackberries. If fenced could I use this for a chicken yard also?

(2) Is it necessary to spray fruit trees set this spring?

(3) Are young trees from the forest as good for planting as those of the same kind from the nursery?

(4) Should plum trees be planted in clusters or in rows?

(5) Are berry bushes from an old bed as good for planting as those from a nursery?

Ans. (1) The small home orchard may be used as a poultry yard but cultivation should not entirely be omitted.

(2) It is not considered necessary as a rule to spray fruit trees the first season except of course if they are attacked by some leaf-eating insect when we should spray with Arsenate of Lead or some similar poison.

(3) Trees from the forest are not as good for planting as the same kinds from a nursery because the forest trees usually lack proper root development and besides have been grown in the shade. Usually such trees prove more expensive in the end than trees bought from a nursery.

(4) Plum trees should be planted in rows and not in clusters. Because plum trees are found in clusters in the wild is not a good reason for planting in that way.

(5) You ask if berry bushes from an old bed are as good as those from a nursery. It will depend upon the kind of fruit. Red raspberry sucker plants from an old bed are quite as good as any you can buy. Black

raspberries grow only from tips and any such tip plants as may be found in an old bed will be satisfactory. Do not divide old clumps of red raspberries for resetting as these will not be satisfactory.

Ques. (1) What has experience shown to be the best season for the pruning of cherry trees?

(2) Has pruning caused the production of water sprouts and has summer or fall pruning, rather than spring pruning, been found desirable, or does it tend to lessen the tendency to sprout?

(3) Has pruning caused Gummosis or other kindred evils?

Ans. (1) Cherry trees should be pruned in late winter or early spring. Pruning in the big Sturgeon Bay cherry orchards will probably be about completed this year by April, 10th.

(2) Pruning the cherry rarely causes "water sprouts." In the apple heavy pruning at this time of the year on old trees invariably results in a heavy growth of water sprouts, but we should not hesitate to prune as needed, and we can take care of the sprouts as they appear, in May and June. Simply rub them off or remove with a pocket knife. Fall pruning would have the same effect in this respect as spring pruning. It all follows the theory that pruning during the dormant period tends to wood growth. The only way in which we can avoid the sprouts is to prune during June or July, preferably the latter month and this is not the best season to prune.

(3) We have very little trouble from Gummosis in Wisconsin on the cherry or plum from pruning. This is a bug-a-boo ex-

ploited very largely in text books on fruit culture but rarely met in actual practice. Do not hesitate to prune on cherry trees for fear of this trouble.

Ques. (1) How much should Elm trees be pruned that were set out last fall. The trees are about 2 inches in diameter and 16 inches high?

(2) When should Asparagus roots be set out?

(3) When should Rhubarb roots be set out?

(4) When is the best time to set out White Pine trees? Spring or Fall? If in the Spring how late can they be set out? What size can you recommend, from 12 inches to 18 inches, 24 inches or 3 feet? Can you recommend a Pear tree for the home orchard?

C. H. M.

Ans. (1) If the trees were not pruned at the time of planting cut them back quite severely, for instance remove about half the tops. In doing this you can often cut out limbs that will make bad crotches or sharp forks. In the case of old Elm trees this is the most common fault; the trees when young were allowed to form sharp crotches and usually split down in old age.

(2) Asparagus roots should be set out in the Spring. The ground should be deeply plowed and heavily manured. Dig a furrow or trench a foot deep or more, place some rich soil with plenty of well rotted manure in the bottom of the trench 3 or 4 inches deep, set the plants in this and fill in with rake or hoe as the season advances and the plants grow. The roots are then down a foot below the surface where we want them.

(Continued on page 126)

Annual Plants for Newly Graded Grounds

A few well-chosen annual plants placed on newly graded grounds will do much to take the place of trees and shrubs until the latter may have time to grow, according to the U. S. Department of Agriculture's specialist. It is often a question in a new community where slow-growing vegetation has not had an opportunity, as to what may be done to make grounds seem less bare. A lawn can be made in a few weeks and its appearance may be greatly increased by the addition of a few well-chosen annuals.

The specialist suggests as particularly suited for this purpose the following plants, which may be grown in most parts of the United States:

Tall foliage plants.—Castor bean, caladium, canna.

Tall flowering plants.—Cosmos, scarlet sage, sunflowers.

Border plants. — Alternanthera, alyssum, ageratum, coleus.

Medium-tall annual flowering plants.—Geranium, California poppy (*Eschscholtzia*), Zinnia, marigold, aster, petunia, cockscomb, larkspur, nasturtium.

Climbing annuals. — *Cobaea scandens*, moonflower, Japanese morning glory.

Varieties in color and contrast, in height and general effect should be studied in placing the plants.

The general appearance of plants on the home grounds or in the garden is more or less dependent upon the condition of nearby lawns.

Lawns are the foundation of all decorative planting. A good,

well-kept lawn contributes more to the beauty of grounds than any other single factor. For this reason special attention should be given to the grading, cultivation, and enriching of the area to be devoted to the lawn. After good preparation come good seed and care.

The variety of soils which will be encountered and the special treatments which they need render it possible to make only the broadest generalizations here. For localities north of St. Louis, Mo., and Richmond, Va., lawns can be formed chiefly of bluegrass, reedtop, and white clover. South of this point Bermuda grass and St. Augustine grass will have to be relied upon chiefly, although it is said that in some places alfalfa has been employed with good results.

The U. S. Department of Agriculture has a bulletin on "Lawn Soils and Lawns" (No. 494), and a bulletin on "Beautifying the Home Grounds" (No. 185), which will be sent to applicants as long as the supply lasts.

Ask Questions

(Continued from page 125)

(3) Rhubarb should be planted early in the Spring. This also requires rich ground for best results.

(4) White pine trees should be set in the spring but unlike deciduous trees the planting may be delayed quite late, often as late as the 1st of June, although early planting is better than late.

Trees 18 to 24 inches are preferable to those of larger size.

Yes, plant a pear tree or two in the home orchard. Not that you will get a great deal of fruit but you will have lots of fun and you may get a pair or two.

W. T. of Pennsylvania wants to know:

- (1) Best soil for apples.
- (2) Kind of soil best for Wealthy apple.
- (3) Small fruits for Chippewa County.
- (4) Where to buy nursery stock.
- (5) Best variety cucumber for dill pickles.

Ans. (1) Almost any kind of soil in Wisconsin will raise apples but for a commercial orchard select clay loam or gravelly clay with clay subsoil.

(2) Ditto.

(3) Any of the kinds named in the Annual Report. Membership fee 50 cents a year.

(4) Patronize our advertisers.

(5) Rasmussen says: "I know of nothing to surpass the Improved White Spine for Dill pickles although such varieties as Chicago Pickling will out-yield them."

Quassia Not New

In your March number of *Wisconsin Horticulture* is an article about Quassia chips. I used this spray for a number of years in England on several acres of Black and Red Currants and on roses before the buds burst. If you think it would benefit any member you can publish the following formula:

Spray for 100 Gallons

5 pounds of Quassia chips, put soaking twelve hours or more in ten gallons of water, then strain and bring water to boil. Add ten pounds of whaleoil soap, stir and keep on boiling for twenty minutes, then add one part liquid to ten of water, 15 for roses.

D. Smith.

The Onion Maggot

What gardener does not know the onion maggot? This elusive pest has baffled the onion grower probably since colonial times and until recently no effective method of control has been recommended. It has been the custom to try to eliminate a pest in the stage which does the damage. Now the character of the onion maggot, which is the larva of a fly resembling a house fly, is such that the pest is beyond reach when the injury is being done. There is no successful means of eliminating soil infesting insects while underground other than cultural practices and rotation of crops. Fortunately the onion maggot does not spend its entire life cycle below the surface. The adult fly emerges from winter quarters spent either in the adult or pupal stage, and commences to lay eggs as soon as the young onions appear above ground.

This adult two winged fly has the same liking for sweets as most of its large family. Right here is where Prof. Sanders is taking advantage of its appetite and is working out a poison bait spray. This work has continued for two summers and all indications predict a successful solution of the problem. One large truck gardener, whose losses from the maggot inspired a willingness to try any feasible plan to control the pest, has carried out directions of Prof. Sanders carefully, and reports that he has secured the finest crop of onions which he has had since the fly first found its way to his farm.

This poison bait spray consists of one pint of molasses and five grams (one-sixth oz.) of sodium arsenite, to a gallon of water. It is administered as soon as the flies appear in the spring, which is about the time the onions

appear above ground, and application is repeated about every week throughout the season if the maggots are abundant. Contrary to the usual methods of applying spray mixtures, the idea of distributing this solution is to have it fall in large drops about the field and on adjacent fence rows, etc., so that the flies may lap it up and die before laying their eggs. In the course of the work it has been determined that a period of from ten to fourteen days elapses before the female lays her eggs after emerging. *N. F. Howard.*

Planting Cranberries

(Continued from page 123)

As soon as our car arrives we proceed at once to haul the vines to the marsh covering same with canvas while in transit. We then remove the vines from the bales and spread them out evenly on a surface of marsh or bog prepared for them, having the vines in close contact with the moist peat about 1 foot in depth and covering with 2 feet of sphagnum moss. This of course requires a large area, but we haven't tried to spread them any thicker (we may have to try it this spring as we will have 18 tons of vines to care for as we are to plant 20 acres). We examine them every day to see that they don't heat, or get too dry in latter case we would turn the hose on them. We had no trouble at all with ours last spring, as we had frequent rains. If they should heat we would spread them thinner, air them or loosen, or stir them up some.

For planting we cut the vines in lengths of about 6 inches (not being particular as to which end is up, as they are so tangled it would be quite impossible to

do this. We take from 6 to 8 cuttings for a hill or setting and plant them 9 inches apart, each way, pushing the vines *through* the sand and *into* the peat to the depth of about one inch, with a dull implement resembling a chisel, leaving about 1 inch to protrude at the top or above ground. We believe in clipping the tips of vines as they are more sure to grow and take root much earlier. Our vines made a splendid growth last year and although we planted some as late as July 18th, we did not loose 5 of them. We would like to plant as early as possible as soon as frost is out of the ground, it would give the vines a much better start and a long season for growth.

Our planting was a picture with scarcely any undesirable growth. Late in the fall some bunch grass with an awful mass of spreading roots, appeared, but was readily removed, and by fastening a strip of cloth around the forefinger and thumb being much better than gloves, as they otherwise soon become sore from constant contact with the sand, and by the aid of a common table fork, this was rather a pleasant recreation.—*Mrs. J. Rogers*, Supt. of the Cranberry Lake Development Company's Plantation near Phillips, Wis.

A few fall-bearing strawberries may be planted for home use to advantage. The Progressive is probably as good as any.

Brussels sprouts are splendid vegetables, but are not very successfully grown in this state. Some types of cabbage are easier to handle, and better than poorly grown sprouts.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 12 N. Carroll St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second matter May 31, 1912, at the postoffice at Madison, Wisconsin, under the Act of March 3, 1879.
 Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of Wisconsin Horticulture. Remit fifty cents to Frederic Cranefield, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and pays for two years. Personal checks accepted.

Postage stamps not accepted.

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 Remit to Secretary W. S. H. S.
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No more 1914 Annual Reports for free distribution. The two hundred copies on hand have been reserved for new members. Ask your neighbor for fifty cents so that he may have a copy.

Western box apples are quoted at 60 cents to \$1.25 on New York market, March 15th. Who gets the profits? Ans. The Wisconsin apple man who got \$3.00 per barrel for McMahan and Wealthy last September.

Ask questions.

A Chance to Buy a Book

Excavations in the back room of our old office preparatory to moving brought to light, in addition to many unnamed and nameless curiosities, a small lot of books once used in our exhibit at the state fair four years ago and then packed away.

The books are practically new although the bindings are somewhat soiled.

As it is very unlikely that these books will again be used in any way in the office they are offered to our members as follows:

The Spraying of Plants, Lode-man.—The best handy reference book on spraying. Book cost new \$1.25, selling price, 75 cents.

Fertilizers, Voorhes.—Cost \$1.25; selling price 75 cents.

Plant Breeding, Bailey—Cost \$1.25; selling price 75 cents.

Principles of Fruit Growing, Bailey.—1st edition \$1.50; selling price 75 cents.

One copy above, new edition cost \$1.75; selling price \$1.00. This copy bran new and unused.

Forcing Book, Bailey. — A manual of greenhouse practice. Cost \$1.25; selling price 75 cents.

Practical Garden Book, Bailey & Hunn.—A fine book for the amateur gardener. Cost \$1.00; selling price 50 cents.

Systematic Pomology, Waugh. The American Orchard Waugh, Harvesting, Marketing and Sorting Fruit, Waugh.

The cost price of the Waugh books is not now available but was probably about \$1.25, will sell for 70 cents each. These prices include postage.

I am not starting a second hand book store nor a store for second hand books but am anxious to get these books out where they will be working. Only one copy of each and no more will be offered. First

come, first served. Postage stamps not accepted.

F. Cranefield,
 Secretary.

There is also on hand about a dozen copies of our 1911 report.

A copy will be sent on receipt of seven cents in stamps.

F. C.

A Distinct Breed

No doubt about it, horticulturists are a distinct breed, the same in Dakota, Wisconsin, Denmark and Madagascar.

Witness this the conclusion of Mr. Richardson's report of the South Dakota meeting and compare it with reports of any annual meeting of this Society from 1870 to 1900.

"The South Dakota Horticultural Society is small, by our standards; the attendance was small, their financial resources but a tithe as compared with the appropriations of some other states; their climatic conditions are so severe that they have been compelled to work out a well-nigh new system of horticulture: there are no large city markets near at hand; nevertheless with all these disadvantages South Dakota has made advances of which any state might well be proud, for every member present was imbued with the spirit of effort and progress—and in the words of the Good Book, "where even a few are gathered together, there shall the spirit be."

The legislature is ill; suffering from economitis complicated with reformitis. Symptoms of jobitis are also present. Complete recovery expected about July 1st.

We answer questions.

Lubsk Queen and Beauty

In the March number our friend Moyle compliments the writer's report on fruit growing in Richland County in a way that reminds him of the fellow who had a perfectly good watch except that it would not run.

The untoward behavior of the Lubsk Queen for Mr. Moyle may be due to jealousy, as he has undoubtedly surrounded himself with beauty that overshadowed the Lubsk Queen, and nature, sometimes, like people, is full of resentment at rivals.

In commercial fruit growing the grower may well subordinate

No Time to Bear Fruit

The Eureka, or sweet Fameuse was introduced several years ago by the late Dr. T. E. Loope.

There is very little on record in our proceedings of its behavior.

Mr. Silas W. Phelps of Markesan has tested the Eureka and is not very much in love with it. He writes: "It is such a vigorous grower that it never takes time to bear fruit. Fifty trees bought eight years ago are now eight inches in diameter and correspondingly late, have never borne a bushel of fruit. Have tried ringing and root pruning,



Another "side-hill" school. Children try to play on these hillsides but make a poor job of it. I have watched them often. What was the idea anyway? Why merely economy, this particular piece of land being unfit for anything else the school house was built on it. Anything is good enough for kids but nothing is too good for the Guernsey calf or the colt. Why do boys leave the farm? If I was a boy again on a farm I would want to leave just as soon as my legs got long enough to take me away.

his likes and dislikes and also remember that beauty passes on its face. The Lubsk Queen grown in Richland County has for some years been selling at \$6 to \$10 a barrel in Chicago, and they are easier to handle than any other apple of its season. Aside from its crab apple flavor and beauty it is the best preserving apple in existence. The Richland County growers want more Lubsk Queen and fewer Yellow Transparent.

G. H. Townsend.

Ask questions.

but they refuse to do anything but grow."

Liquid manure is made by filling a barrel or a tub half or two-thirds full of cow manure and then adding enough water to fill the barrel. Take off the liquid for use on any planting which needs fertilizer. Melon vines may be made to grow much more vigorously if this liquid is added to the hills once in a while.

Sample copies of Wisconsin Horticulture will be sent on request. Send your neighbor one.

BERRY BOXES

Crates, Bushel Boxes and Climax Baskets

As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16 quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Co.

Dept. D, Cumberland Wis.

FOR SALE

Choice Strawberry plants of different varieties, all grown on new land. Also Plum Farmer-Black Raspberry and Red Raspberry. Box 207

WM. ROUNDS, Baraboo, Wis.

McKAY NURSERY COMPANY

PARDEEVILLE - WISCONSIN

Offer a complete line of

Hardy Nursery Stock for Spring 1915

Have 60,000 No. 1 Apple Trees including such varieties as

Wealthy, McMahan, Snow Dudley, McIntosh

Write today. We want to send you catalogue and quote on your list of wants.

Nurseries at Waterloo, Wis.

The "Horticulture" Advertisers deserve your patronage, will give you perfect satisfaction.

A CAUTION

Few beginners realize that harmony of color is an essential to a satisfactory garden or flower-bed or bouquet and that the excruciating contrast of discordant reds, as are often found in a mixed bunch of zinnias, or a bouquet of the varying reds and pinks of roses really are self-destructive. Take the horrible combination apart and each flower is beautiful in itself. There is an old saying that, "dirt is only matter misplaced."

Is not the same idea applicable to many bunches of flowers or so-called bouquets? How much better to use a little self-restraint and to make a smaller bouquet of harmonious arrangement! A pumpkin is large but a peach is often more delicious! Compare the effect of one or two harmonizing flowers to a bouquet of carelessly mixed contrasts, and think of the beauty misplaced and so spoiled. Horrors!

Consider carefully the colors of the house and the foundations before planning a border-bed. A bed of one or two harmonizing plants makes a more effective border against a house than a mixture of many varieties in clumps.

Reds against red or brown brick walks are skittish combinations; it is better to use white with green behind it and a low growing green with a little light yellow or purple pansies in front. Plant, for example, in front of a red or colonial brick wall rows of:

(1) White larkspurs or hollyhocks, (2) then white geraniums, (3) then dwarf-mixed nasturtiums or mignonette.

A gray brick, cement, or plaster or gray-painted wall:

A (1) German iris (early blue), (2) Scarlet geraniums or red zinnias. (3) White alyssum.

B (1) Hollyhocks. (2) Cosmos. (3) sweet alyssum.

C. Larkspur (mixed colors) giant at back and dwarf in front.

D. (1) Shasta daisies. (2) Pansies or salvia.

E. (1 & 2) Gladiolus. (3) Salvia.

F. Poppies, large and small, shirley and peony flowers.

A white-brick, yellow or brown painted house.

A. (1) Yellow iris. (2) Marigolds (African mixed, yellow or zinnias). (3) Dwarf nasturtiums, mixed colors.

B. (1) Shrubbery or vines. (2) Red geraniums. (3) Candytuft.

This list is merely a suggestion of what can be made effective at a small cost for seeds or plants.

Orchard and Garden Notes

Minnesota College of Agriculture

Cuttings of chrysanthemums may be made now in large quantities.

Plan to cultivate the garden thoroughly this summer. Get the best tools for this work.

Plan to add some flowering shrubs to the lawn, and perennials to the garden, this spring.

Callas require plenty of water when flowering, and should also be given a good supply of liquid manure once in a while.

If peonies or rhubarb are set out in the spring work must be done just as early as it is possible to work the soil, as both start in to growth early.

Sweet peas may be sown as soon as the soil can be worked. They may also be started in pots in the house, and transplanted early outside.

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 Jewell Nursery Co.

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150 Acres

Established 1868

The Kickapoo Valley

Wisconsin's Favorite
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Orchards planted and developed.

Choice orchard tracts for sale.

Send for literature.

The Kickapoo Development Co.

Madison or Gays Mills, Wis.

Climbing Roses

Star size New Excelsa Roses—hardy, acclimated, field grown plants. Season's growth 10-15 ft. Survived this severe winter without protection. Special prices for early orders. State quantity desired.

VERHALEN BROS.

Burlington, Wisconsin

Factory Canned Goods

One of Wisconsin's Horticultural Products

At the recent School in Home Economics & Women's Lecture Course for 1915, held at the University one of the lecturers, Mrs. Hewitt, whose admirable recipes have been given several times in this magazine, talked on "Canned Goods." She endorsed factory canned vegetables, and urged their use in preference to home canned vegetables as being labor saving, cheaper, and usually of a uniformly good quality. Frankly, I do not entirely agree with her as I think that home canned vegetables when carefully done from freshly gathered vegetables are superior to factory canned in flavor. I do admit that factory canned goods save home labor and time, maybe and usually are clean and sanitary under the admirable regime of food production brought about by Mr. Emery, but—and here I consider they fail—one never knows what one is getting. One may have a good can of peas for instance, and look for the brand before throwing out the empty can but find only a jobber's or wholesaler's name put on by firms who to make up their stock, may buy the product of two or three canneries of varying quality — as the large mail-order houses are said to do. To build up the confidence of the housewives no canner should allow his product to be re-labeled by a wholesaler or jobber. Concerted action by the canners and their associations would soon force the wholesalers into line. If a product is not good enough to be fathered and graded by the manufacturer, the inference in the mind of the consumer is that it is in some way illegitimate and consequently the pro-

ducer being ashamed of it, it is marketed under another man's name.

The consumer should be protected by having the grades plainly designated on every can to protect him from the varying prices of different retailers.

A sensible label is suggested in the following:

(Label)

NO. 4 EARLY JUNE PEAS

Put up by
FARMER & JONES
CANNERY

Silverdale, Arcadia

For

Smith, Robinson & Nelson
Wholesalers Jobbers
Milwaukee, Wis.

The contents of this can is free from all preservatives and Adulteration Please return all defective cans when found to the retailer

The number "four" tells the grade and would be looked for by the intelligent housewife and the manufacturer's name shows that he has confidence in his goods and is willing to back them.

The following list of "Don'ts" originated with the Publicity Department of the canners' association. It was given both at the University lecture by Mrs. Hewitt, and the lecture given at the Continuation Schools by Mrs. McDonald.

Don't buy a single can at a time; you can always save money by buying by the dozen cans or case.

Don't store in a damp place, on account of rusting, or where the temperature is either extremely hot or cold. The average basement is all right.

(Continued on page 132)

I Have For Sale

a few hundred extra fine strawberry plants, such choice kinds as Kellogg's Prize, Columbia, First Quality, Rewastic and Abundance at \$1.00 per hundred, all very promising new varieties. Helen Davis at 50 cents per hundred or \$5.00 per thousand. Plum Farmer Blackcaps plants at \$1.00 per hundred.

Some extra choice mixed Gladiolus at 50 cents per dozen, all from fine named varieties: Alline, Niagara, Panama, America, Princeps, Contrast and other good varieties in this collection.

H. B. Blackman

Maple Street

Richland Center : : Wisconsin

Strawberry Plants

100,000 choice Strawberry Plants. Also Red and Black Raspberry. Asparagus and Rhubarb roots.

These plants will not be dug more than twenty - four hours before shipping. All stock guaranteed. Hot bed plants in season. Write for prices.

Rasmussen's Fruit Farm

Oshkosh, Wisconsin

"We have a Fine Lot of Plants for the Garden"

SEND FOR LIST

J. E. MATHEWSON

SHEBOYGAN, WISCONSIN

Do not grow seedlings in a close, warm place. They must be encouraged to grow stocky and strong, not weak and succulent.

*Increase the Yield and Quality of your Fruit
by Spraying your Orchard with*

LIME SULPHUR AND ARSENATE OF LEAD

CREAM CITY CHEMICAL WORKS

Manufacturers of

INSECTICIDES AND FUNGICIDES

Spray Calendar sent
on Application.

**774 Kinnickinnic Ave.
MILWAUKEE, WIS.**

Factory Canned Goods

(Continued from page 131)

Don't let contents stand in the tin after it is opened. They should be emptied into glass or china dish if to be served without preparation, or into sauce pan if to be heated.

Don't pour the liquor off the peas or other vegetables; the best flavor may be in the juice.

Don't cook peas, string beans, corn, etc., they are already cooked. Simply heat up and add butter and seasoning if desired.

Don't cut open with a knife or a hatchet; get a good can opener.

Don't open or use the contents of any can that is "bulged" or bloated so the ends "swell out." A few cans on account of defective soldering or faulty tin plate will spoil, but they are always guaranteed by the canner, and

the "swells" are often the spoiled ones. Take back to the grocer and exchange for a good one.

Don't buy the most expensive canned peas if you want food value. Those that retail at the highest price, the tiny ones, are usually very small, tender, little peas used principally for garnishing, and while extremely tender and considered very fine, are really not as good for family use, considered from the standpoint of food value as the medium priced peas which are usually the "sifted" or size three.

The "early June" or size four, usually selling at a low price is splendid food value and contains much nutriment. These are the early varieties usually called Alaskas, or early June peas. The sweet, or wrinkled varieties are more like the common garden peas, with a flavor distinctly different from the early peas.

The smaller siftings, while commanding a high price are desired principally for appearance and not for food value. The size four is a very sweet and tender pea, usually selling at a medium price. Size five, a splendid pea, sells at a lower price.

The canned vegetables of today are a wonderful advance over the old time home canned variety, according to the lecturer, but the housewife makes a mistake when she serves vegetable exactly as it comes from the can.

"The article has not been cooked for eating, but for keeping," says a home arts bulletin. "The cook who boils her freshly cooked peas or beans until tender, drains them insufficiently and sends them to the table without further dressing or seasoning would not be considered a mistress of her craft. Yet

many a woman turns the contents of a can of vegetables into a sauce pan, heats it, dishes it, and then blames the manufacturer because the food lacks flavor."

Grape Vines Winter Killed

In the fall of 1911 a hard and untimely freeze rendered it impossible for E. D. Cowles to bed down his grape vines, so the entire vineyard, except the Beta froze to the ground. The following spring, instead of plowing it down as useless, he renovated and cultivated. When the vines sprouted they were pruned back to the best at each vine, going over the field four times. Wherever possible the old vines were left for ladders. These young vines grew five to twenty feet long that year. In the fall they were cut back to sound wood—eight to ten feet for the longest vines and others in proportion. They were then carefully bedded down and covered as usual. The following year they bore a good crop. Hereafter the speaker will not keep a grape vine over four years old, but will renew. Mr. Ludlow of Minnesota allows three vines to grow from each root, and removes the oldest one each year. Three vines have produced a ton and a half of grapes.

Rep. C. L. Richardson, South Dakota Society.

Cut-flowers keep best in clean water and pure air. It is a good plan to change the water daily and cut off an inch or so of the stem at the same time. This keeps the flowers fresh and firm.

Our advertisers are reliable.

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

by extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

Duchess, Dudley, Wealthy, McIntosh, Snow and Northwestern Greenings

Try a few of the new sorts if you wish. We have them. Our **Fruit Trees, Small Fruit Plants, Vines and Ornamental Stocks** were never better. Our prices are as low as any where *quality of stock* is considered.

Our Landscape Department will draw your plans and do your planting. Write today for our new catalog and your list of needs for next spring.

Salesmen Wanted

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Fort Atkinson, Wisconsin



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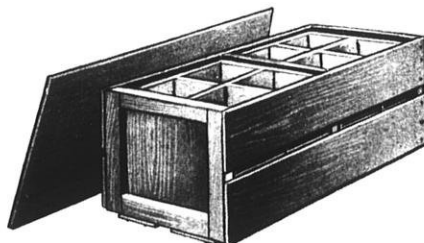
*Paste or Powdered
Lime Sulphur Solution*

Recognized as standard in principal fruit growing sections of the country. Convenient source of supply for Wisconsin fruit growers. *Sulphate of nicotine 40% and free nicotine 40%.* For further information write.

THE GRASSELLI CHEMICAL CO.

Main Office, Cleveland Ohio Established 1839 MILWAUKEE, WISCONSIN

Silver or White Birch Berry Boxes



Manufacturers of Berry Crates in the K. D. or made up and filled with our celebrated "Silver or White Birch" Berry boxes, Climax Grape and Peach Baskets, Till or Repacking Baskets, Tree Protectors, Plant Boxes, Bushel and Half-Bushel Crates, Beekeepers' Supplies, Box Shooks and Specialties.

Write for Circular and Price List

SHEBOYGAN FRUIT BOX CO., Sheboygan, Wisconsin

Let Us Be Thankful

"Fruit-Culture in the Black Hills," by Vice-Pres. Robertson, was a stirring example of the triumph of determination over adverse conditions. The atmosphere is intensely dry in summer; in winter it is about as dry. The temperature ranges from 42 degrees below zero to 110 above. The altitude is approximately 4,300 feet. This is the only commercial orchard within a wide radius. The birds come from miles around to steal the fruit. There is a large and hostile wasp which infests the raspberry patch, eating the berries. He is larger and more painful than the Wisconsin variety. Red squirrels and chipmunks cut off the fruit spurs to get the fruit buds. The crows eat the fruit and the jack-rabbits strip the trees of bark up to the lower limbs. It costs \$50.00 per acre to free the land from stumps and stones, and the land is hard to prepare. This is the price the Black Hills fruit grower must pay.

But there is no difficulty in marketing. All fruit finds an eager sale. People come miles to purchase even the windfalls at 1 to 1½ cents per pound. Freight rates prevent dangerous western competition. And there is no supervision, no competition, no Fruit Grower's Unions. The entire problem is one of production. The Mackintosh Red is the best apple for this section.

Rep. C. L. Richardson, South Dakota Society.

Summer cypress (Kochia) makes a good annual hedge. It grows about two feet high, is quite dense, and changes from a light green to crimson in autumn. Sow the seeds indoors in April. The plants will reseed year after year.

Our Strawberry Plants

grow finely and produce prodigiously. Our prices make our patrons entirely satisfied. Large orders a specialty. Write today for our strawberry circular.

C. L. Pearson & Son
BARABOO, WIS.

Everbearing Strawberries, Apple Trees, Plum Trees, Small Fruit Plants

At LOW PRICES
WISCONSIN GROWN

For Wisconsin Planters Price List Free
Kellogg Trees means "Blue Ribbon Quality"
61st year

KELLOGG'S NURSERY
Box 77 Janesville, Wisconsin

Bring canna bulbs from the storage room and pot them in a loamy soil. Later the pots may be put out in a cold frame.

SPRAY

YOU ARE GOING TO SPRAY THIS SPRING

NO matter how small or extensive your operations there is a proven MYERS OUT-FIT—Bucket, Barrel or Power that will just fit your requirements and do the work rapidly and effectively.

Don't take a chance on an outfit that you are not familiar with. Cut out failures by spraying MYERS WAY. It pays big returns in better crops and high market prices.

Write today for Catalog showing all styles

F. E. MYERS & BRO.
303 Orange Street
ASHLAND OHIO

**APPLES
PEACHES
PEARS
PLUMS
CHERRIES
GRAPES
BERRIES
POTATOES
MELONS
VEGETABLES
FLOWERS
VINES
SHRUBBERY
WEEDS
ETC.**

MYERS WAY

Better Fruit

J. S. Palmer.

From the first, Sauk County has led all other counties in the state in the quality of fruit grown, and has contributed a large share of Wisconsin fruit at every exposition.

To the Centennial at Philadelphia, Sauk County sent a large assortment of fruit, and again at the World's Fair in Chicago, we furnished much of the fruit for the Wisconsin display, and also made an individual exhibit, which won a gold medal and received much favorable comment both from the Fair management and the public, giving us the first recognition as a fruit growing district.

At Buffalo, and again at St. Louis, Sauk County was called upon to furnish the greater part of the fruit for the Wisconsin exhibit.

At the Apple Shipper's convention at Cleveland in 1913, we won second place in competition with Canada, New York, all of New England, Michigan, Iowa and Minnesota.

At the Wisconsin State Fair, Sauk County has always taken a conspicuous place. Some 25 years ago an exhibit of fruit was made, which won first prize for best show of fruit from any county in the state. In the regular Fair exhibit, we have taken first prize for grand sweep stakes of all fruit, as often as 8 times out of 10 for many years.

If we are to maintain the position that Sauk County now holds, we must ever improve the *quality* of our apples. We are still growing too many inferior varieties, and the sooner these are removed, and high grade varieties grown in their places, the better for the reputation of Sauk County fruit.

THE GREAT NORTHERN NURSERY



We have over one hundred thousand No. 1 Apple trees just like the ones shown above. Write us for prices before you place your order for trees. We are the largest growers of apple trees in the state, we are confident we have the stock to suit you and will be pleased to figure on your wants.

THE GREAT NORTHERN NURSERY CO.,
25 Linden St., Baraboo, Wis.

Personal and confidential: The photo that I am enclosing shows my faithful dog Jack in the background. This is a trade-mark no other nurseryman can use for he never would be found in any other nursery. I don't believe a better block of apple trees was ever grown in Wisconsin. Don't they look it?—M. F. F.

The market demands *better quality*, and while low grade fruit poorly handled, seldom pays expenses; *high quality* Sauk County Apples, well graded and packed, will always bring good prices.

It is hardly in keeping with the spirit of progress so manifest in other lines here, that the fruit business is not being developed

(Continued on page 136)

**FRESH HARD-
WOOD ASHES**

200 lb. Bag	\$ 1.00
1 Ton	8.00
Carload Loose	50.00

Free on board C. & N. W. R. R. and
C. M. & St. P. R. R.

J. J. ESKIL

Member W. S. H. S.

Iron Mountain - - - Michigan

**The Hawks
Nursery
Company**

are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

Wauwatosa, Wisconsin

Better Fruit

(Continued from page 135)

as in some other parts of the state. Although I still am greatly in favor of the individual ownership plan of orchard development; the stock company orchards under proper organization, are receiving better care and consequently are growing faster and making a better showing, than most individually operated orchards, although I know some of these that compare very favorably, with any orchard, either stock company, or state demonstration orchard.

When the owner realizes that the success and profit all depend on the intelligent care given, these orchards are better situated to receive proper attention, than by the ones operated by a hired manager. In orcharding as in everything else, the business that has the owner's personal attention is much more apt to succeed, than the one conducted by hired operatives, with no personal interest therein, and the expenses of operating are much less.

After a careful investigation of conditions, not only in Wisconsin, but in other localities as well, I believe no place offers better opportunity for this business than are to be found in Sauk County, and I hope for a great increase in the business here in the near future. Surrounded as we are, by the best fruit markets in the world, where the people have a greater buying power than any other locality, we can depend on a sure market for all the good fruit we can grow at good prices.

More apples are consumed during the months of October, November and December, than in all the rest of the year; and the bulk of our crop is ready for

consumption at this time, practically without competition from the other great fruit growing districts. We can put our apples on the market with much less expense for freight and storage than from either east or west. And so, if we keep our quality and packing up to a high standard, there are great possibilities for the future, in the fruit business in Sauk County.

About Pruning Shrubs

Do not prune lilac, syringa, spirea, or any shrubs which bear flowers on the wood of last year. Spring pruning will mean no flowers this year.

The hydrangea bears flowers only on new (1915) growth and may be pruned heavily in spring if desired.

Golden Self Blanching celery may be sown now. Sow in fine loamy soil and just slightly cover the seed. It is often a good plan to shade the seed box with burlap or cotton cloth until the plants come up. Be careful to get good seed.

Among the best annuals for cut flowers are nasturtiums, gailardias, asters, calliopsis, cosmos, nigella, scabiosa, pot marigold and cornflower. Order seeds for these now and be ready to plant them either in the house or in a cold frame.

FRUIT PACKAGES

of all kinds, Farm Crates, Storage Bushels, etc.

For Special Prices Write To

STOLLE LUMBER & VENEER CO.

Tripoli, Wisconsin

Make It Strong

Lime sulphur, 1 to 11 or 1 to 10 will *not* kill oyster shell scale, the opinions and directions of "experts" to the contrary notwithstanding. Use it 1 to 6 or 1 to 7 if you want to kill the scale.

Norway has 144 tree-planting societies. The first was founded in 1900. 26,000,000 trees have been set out. More than 2,000,000 were set out last year.

English cottage gardens are famous the world over for their beauty and utility. Why not pay more attention to making our own gardens more useful and beautiful?

Watch the hot beds. Ventilate on bright warm days when the temperature rises, and be careful about the watering. Water is best applied early in the day, so it may have a chance to evaporate from the foliage before night

See that the shrubbery or perennial border does not become bare during the early thaws. It is a good plan to scatter straw or even manure over it.

Plant a few hardy gailardia. No plant is more showy or can be used to better advantage for its cut flowers.

WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, May, 1915

Number 9

Annuals

Annually there is a story in these columns about annuals. Persistently and perpetually the editor insists that the only real fun in growing flowers is in growing annuals. Of course perennials like phlox, etc., are fine and do not require replanting every year, the gladiolus if not the queen of flowers is at heart a princess and all the flowering shrubs we have place for and can afford are a delight but for real enjoyment plant annuals.

Heading the list as well as the alphabet, comes asters, late branching, early branching, ostrich plume, incurved, comet and a dozen others. The modest and lovely sweet alyssum, balsam, coreopsis, celosia, gailardia, heliotrope, larkspur, marigold, mignonette, nasturtium, petunia, phlox, portulaca, poppy, ricinus (Castor bean), verbena and ending the alphabet with zinnia.

Allowing for three packets of good asters the entire list of seeds can be had for less than a dollar.

None of these are pampered greenhouse pets nor none need be planted in boxes. If one is eager for very early asters the

we force it into bloom in the heat of summer we lose something of its rarest beauty.

Plant all of these in the open,



Quiet, peaceful and restful. There has been no attempt to add city surroundings to this farm home. Flower beds and foliage fripperies on this lawn would ruin it.

seeds must be planted in March or April, but the finest asters are the ones that come on as the days are getting short and the evenings cool. The aster belongs to autumn days and when

in the vegetable garden and not in stingy little flower beds or borders.

Plant the seeds early in May in soil that has been made fine with a garden rake. Make shallow

furrows with a lath sharpened on one edge.

Cover lightly, very lightly for the smaller seeds with soil sifted through a fine mesh screen and press the soil firmly over the seeds. Lay boards over the rows for a few days and until plants appear to avoid washing and baking of the soil.

All the rest is just like caring for a patch of onions or carrots. Thin the plants, cultivate often and water only if absolutely necessary. The results will repay you a hundred or a thousand fold. Flowers from July to frost, and the finest of all flowers. Nothing can quite compare with a garden of annuals. Try it.

Top Grafting

"Top-grafting on Hardy Stocks." In the open discussion on this topic ably lead by John Robertson, from the Black Hills, it appeared that the graft was not appreciably affected in flavor by the rootstock. The size could be increased by grafting a top on a more vigorously growing tree. How far this was due to the scar impeding the return of the sap (analogous in a measure to girdling) was an open question. The great weakness in top-grafting is the inherent weakness of the graft, for the scar never heals, and the weak spot remains to cause damage in after years, when the tree is old and bears a heavy crop. Mr. Robertson gave as his personal preference for hardy top-grafted trees the following: He carefully prepares the ground where his orchard is to stand, then plants seeds from Whitney or Hibernial stock where each apple tree is to stand; at two years the strongest tree is cut off below ground and grafted with Hiber-

nal which in two years makes a sturdy little tree which is top-worked with Wealthy, or whatever is desired. This is a slow process, but the result is the hardest tree yet discovered. This tree, never having been transplanted, has a sturdy tap-root, is securely anchored, and equipped to the utmost in its fight for moisture.

Rep. C. L. Richardson, South Dakota Society.

"Iowa Horticulture"

This was the title of an able address by Wesley Green, of Des Moines, Iowa. He called attention to the fact that the white race had succeeded in getting a foothold only where the evergreens grow. An orchard succeeds because of the climate, the location and the man back of it. Every farm needs its own fruit. An orchard will produce more per acre than corn, and although money does not hang on the bushes, the orchard can be made the most profitable area on the farm. This (South Dakota) is not a natural tree country—the rainfall is too small, and tree growth keeps pace with rainfall. Thus there are 17 varieties of oats in eastern Iowa and but one on the western border. Mr. Green advocated cultivation of the orchard, protection of the roots with a mulch about the tree, red clover after the orchard is older, and calls 24 by 32 feet close planting. Hardiness must be developed for our environment. Forty-five to 75 trees per acre are enough. If a limb must be removed some time, do it before the limb becomes too large. The pruner must have a clearly defined ideal tree in mind, otherwise he deforms—not forms—

the tree. The tree should be pruned with a leader up to at least the five-foot level. Two or three limbs should arise at two feet, and three or two at five feet, then cut the terminal shoot, and open up the tree. The more branches bear the load, the less the danger of splitting. Do not cut off the fruit spurs and call that pruning; cut out the dense interior, so fruit spurs will form inside; that keeps the weight of the crop closer to the body of the tree. The extreme top and end of the limbs is *not* the proper place for the bulk of the crop. If the fruit spurs become too long that may be cut back part way. If annual bearing is desired cut off the fruit from one-half the fruit spurs and cut off the spurs themselves on the other half. The spurs defruited will bear next year. Prune during the dormant period to make tree more vigorous. Early summer pruning starts new branches. August and September are the worst possible time, as the leaves—the food-factories—are thus destroyed.

Spraying pays. Only sprayed orchards produced this year in Iowa. Spraying this year induces fruit the next year.

Lime sulphur and arsenate of lead costs 5½ cents per tree applied, and bordeaux with arsenate of lead six cents. For the dormant spray apply lime-sulphur diluted 15 to 1, and for later application reduce to 40 to 1. Lime-sulphur is not as effective for bitter rot as bordeaux mixture.

Rep. C. L. Richardson, South Dakota Society.

Let us (s)pray. Clean fruit is always salable at a good price, poor fruit nobody wants.

CRANBERRY NOTES

By J. W. FITCH

From the appearance of the vines which have come under observation the prospects in the Cranmoor district are very promising. One of the oldest growers says he never saw any better prospects and it is surely a pity that so large a percentage of these vines are in a condition which makes the securing of a crop so much a matter of favorable weather conditions, instead of the condition which President Searls has so often said makes the crop the most certain one in the state. A letter received from a prominent grower on the Cape in which he tells of the appearance of the much hoped for mechanical picker, and asks if Wisconsin would welcome it, emphasizes truth of the foregoing condition and makes one wonder how it would be possible to gather berries much cheaper than they are gathered on many of the eastern bogs with their scoops. To illustrate, the writer had the pleasure of seeing on the bog of R. A. Everson at South Hanson, Mass., vines which produced over two barrels to the rod and from which a picker had scooped a bushel crate in 37 seconds.

In Wisconsin we have not gotten our vines in condition for the scoop yet. The scooper works on his knees for if he did not keep the scoop level all the berries would run out as there is no dead grass etc. to stick in the teeth and hold the berries back. In Wisconsin the raker (as he is called) stands up and the chaff collecting in the teeth holds the berries in until he is ready to empty into the box when he partially cleans out the (chaff). This also shows

how Mass. has outstripped Wisconsin (which at one time took the lead) in culture as well as production, and how well they are prepared to make money even at the low prices which prevailed last season. The prices realized for the Wisconsin crop were such that taking everything into consideration no grower should complain, but should use every endeavor to produce a better berry and with better care in handling and packing make the task of distributing the crop much more satisfactory all around. The dealers will call for Wisconsin berries when they show Wisconsin quality. This necessity is being impressed on the eastern growers who are beginning to realize that the poor quality had much more to do with poor prices than the war.

Most of the bogs around Cranmoor have been drained since the first part of April and it is the practice of some of the successful growers to reflow in case it gets so warm that the vines will start too soon. This method often destroys many vine worms which become active when the vines are first drained. Care must be exercised not to keep the vines flooded too long and water soak the buds, which happened 4 or 5 years ago when after an unusually warm March and April we had a long cold spell, it was found that many of the buds held under water did not develop but those on the high spots, where it was impossible to keep them submerged had splendid crops.

Growers should watch carefully for signs of the fire-worm which become active and spin

up preparatory for the future broods which cause the destruction at times of many vines. Complete instructions for handling this pest have been given several times in back reports of our association and show how by a complete submergence of the bogs the young broods may be destroyed, before the vines are far enough advanced to damage the crop. If neglected the future broods come on at a time when it is impossible to flood without injuring the crop.

Our report is delayed somewhat longer than usual owing to the failure as yet to receive some of the addresses, but it is hoped to have it in the hands of the printer before long.

The Tip Worm

You perhaps recall the very poor bud development we had on the State Bog three years ago, which resulted in a very light crop (less than two hundred barrels) the following year. You may also remember that this poor development was due to a peculiar dying of the tips of the uprights, which became noticeable immediately after the vines went out of bloom. This death of the tips and its effect on the bud formation and on the crop of the following season was fully discussed in my report to this association two years ago (pages 25 to 27 inclusive). In that report, I gave it as my opinion that the dying of the tips was secondary to some injury to the root system caused, perhaps, primarily, by mismanagement in the use of water during the growing season. This seemed to be substantiated by the fact that dry bogs (i. e. bogs without winter

(Continued on page 145, col. 1.)

Even Bob-White is Beaten

The bob-white quail has always been considered a most useful bird in the orchard, but he evidently has a competitor in the common turkey if we may believe C. O. Douglas, Payette, Idaho. In this locality there are several thousands of acres of young orchard and the grasshoppers have been holding about even with the jackrabbit as a nuisance. Douglas has 92 acres of five-year old trees and has lost several on the edge of the orchard every year. He writes: "Last summer when I hauled my hay to the barn the grasshoppers left the hay and started through the orchard. It was three days before I noticed that they were bothering the trees and then 25 trees were stripped bare of leaves and the bark was being eaten. I tried arsenate of lead but that didn't stop the hoppers. I then bought 75 turkeys. They soon cleared things up and I then herded them over near the edge of the orchard where it bordered on a rye field. The turkeys were of considerable value although they couldn't get all of the hoppers.

"I plan on raising several hundred turkeys this spring, more as an orchard protection than as a money maker, although they are very profitable here. All of my neighbors with orchards keep a few turkeys and last summer when the hoppers got so bad most of them tried to buy additions to their flocks.

"The man near me lost 35 acres of two year olds from grass-hoppers last summer. The turkeys will jump several feet from the ground after the hoppers in trees and during the early morning and early evening they go out hunting."

All honor due the turkey gobbler alive or dead!

Two More

The picture of flowers in the March number of *Horticulture* interested me very much. I should like to add two more that are with me always: the Calla and Fern, neither requiring special care, except to give them conditions as near like those which nature provides as possible.



The fern grows in leaf-mold in a place not too warm and sunny. Mine measures 6 feet five inches from top of jar to the floor, and some of the fronds lie several inches on the floor. It stands in a corner of the room and does not get the direct rays of the sun.

The Calla requires an abundance of heat, light and moisture, and usually blossoms from mid-September until May.

If brown patches appear on the edges of the Calla leaves, an indication that worms are troubling the roots I usually cover the ground quite thick with wood ashes and pour the water through this, or omit watering one day and the next day saturate well with lime-water.

H. J. F.

Spray Dope

So far as tree fruits are concerned none can be grown fit for market without spraying. The only possible exception to this may be in very new sections where the pests have not arrived. The fruit grower who does not spray, or cultivate, will soon drop out of the game.

Spraying helps to produce good fruit and that is the only kind that can be sold at a profit.

Even the farm orchards might be made to produce salable fruit if the trees were sprayed.

If you have no spray pump buy one. Get some lime and copper sulphate and some arsenate of lead and go to it. Don't be contrary or indifferent or skeptical.

There is a whole lot to be learned yet about spraying but we already know enough to be sure of good results if the work is done only indifferently. It pays. If you don't know how ask questions but be quick about it for the time to do it is near at hand.

Don't forget to sink an empty tomato can, a flower pot, or a drain tile in the middle of a cucumber hill before seeding—Then in dry weather watering can be accomplished without cultivating every day.

Bayfield Beaten

Kern has been west and acknowledges that the western country beats anything and everything else outdoors. That is to say, Kern still believes in Bayfield and,—on the whole perhaps he ought to be allowed to tell it in his own way. Here is his story and a promise of more.

"It certainly is a revelation to anyone from the FRIGID BAYFIELD DISTRICT to start from Bayfield where the snow was three feet deep the first week in February, riding across the bleak prairies of Minnesota to wake up in Kansas City the second morning out and find that the snow had disappeared and then to ride two days across the beautiful and fertile prairies of Kansas and across New Mexico and Arizona, that are not so beautiful nor not so fertile but more picturesque, and wake up in the snow clad mountains again, but a few hours ride from SUNNY CALIFORNIA.

I could scarcely realize, when we reached the Orange district of California, just after a heavy rain and saw for the first time in my life acres and thousands of acres of Orange and Lemon trees loaded to the limit with fruit, that I was not dreaming.

But when I got to Los Angeles and had time to look around me and make some inquiry I found that my trip was no nightmare and that I really gone beyond the boundary of the BAYFIELD DISTRICT and that I was then in Sunny California and I imagined for a time that the people had been advised of my coming and they had left all the fruit on the trees until after my visit that I might see with my own eyes that which I had heard about the Orange business was true. I am going to admit before I get

off the track, that it was a marvelous sight, beat anything I had ever seen or expected to see but I was not satisfied with the picture alone. I wanted to know if I could grow fruit like that and live in that lovely summer climate and make a living, for I thought I would be satisfied with just enough to live on if I could only have such a climate as that for a home.

I was so green that I had to inquire at what season of the year they picked oranges and was surprised when I was told that they were usually all picked by that time of the year but that they had not been able to sell them this winter and had orders from the marketing associations not to pick any more. They had not left them just for me to see, as I had first supposed. There are 200,000 acres of Citrus fruits in California, valued (by Californians) at \$200,000,000., 85 per cent of which is planted to Oranges and the balance, 32,566 acres (in 1913) planted to lemons and of these, 14,500 acres were non-bearing, and with a moderate yield, this acreage will produce in one season more lemons than the present total consumption of United States and Canada.

A normal crop of oranges for 1914 amounts to 50,000 carloads, and in riding through the state it is plain to be seen that thousands and thousands of acres of oranges are not yet in bearing.

During the last census period the population of the U. S. increased 21 per cent and the production of Citrus fruit increased 292 per cent. What will happen to that industry? It has already happened. The Japan current will have to change again and permit California to have an occasional frost before Citrus fruits can be grown at a

profit, even if they could buy land at a reasonable price.

I then turned to the Walnut industry for relief. Surely English Walnuts must be a profitable crop to grow and they require little attention. I traveled thru the best Walnut section of the state and I got hold of a daily paper, (Sunday Edition) that gave the average return per acre of Walnuts as a trifle over \$51.00. The trees must be ten years old before they will bear. Ten thousand dollars invested in a grove planted in 1904 would have produced last year, after waiting ten years, cultivating, pruning and paying \$60 a year for irrigation, \$510.00 and this would be the average income for years to come, providing no one else went into the business. It was interesting but not profitable. I then turned to the Raisin district hoping to find that a profitable industry. It seems that in all Raisin districts there are Wineries, but that was not what attracted me to the Raisin district. I found that many of the growers had not been able to sell their raisins and that many of the wine grape vineyards were being grubbed out, preparatory to growing some crop that might not be legislated out of existence, and with Wineries that cost half a million or more to erect and equip this will sink a lot of money, as I could not figure out anything that the equipment could be used for except for making wine. The winery we visited, at Tarpa was one of the largest and it was located in DRY territory so many of the visitors were unable to sample the product, but a few of us happened to have our drinking cups in our pockets and when others got to tampering with the faucets and somehow opened

(Continued on page 142.)

Protection Against Clothes Moths

The various substances used to keep away moths, such as tobacco, camphor, naphthalene cones or balls, tarred paper, and cedar chips have no effect if the eggs are already present in the clothes, and entomology specialists in the United States Department of Agriculture therefore recommend a thorough beating, shaking, and brushing of all articles likely to attract moths, before they are laid away for the summer. The brushing of garments is especially important in order to remove eggs which may have escaped notice. If the articles are quite free from eggs or larvae when laid away, the odor from the various repellents already mentioned or from cedar chests and wardrobes will serve to keep the moths away. This odor, however, lessens with age, so that the protection it affords is greatly decreased after a few years. For this reason when furs and other valuable garments are wrapped in tarred paper or placed in sacks of tarred paper these containers should be renewed every year or two.

In general moths are likely to affect only articles which are put away and left undisturbed for some little time. Apartments and closets that are frequently aired and swept are not apt to be seriously affected. In fact airing and sunlight are probably the best as well as the oldest remedies. Where circumstances demand that the articles be put away, however, a convenient and effective device is to place them in large paste-board boxes such as tailors use and gum a strip of wrapping paper around the edge so as to seal up the box completely and leave no cracks.

If the garments have been thoroughly cleaned before being placed in these boxes, no additional protection is necessary and there is none of the objectional odor which is characteristic of so many moth repellents.

For valuable articles the safest plan is to place them in cold storage. Recent experiments have shown that the larvae of the clothes moth will resist for a long time low temperatures if these are uniform, but that the alternation of low and high temperatures quickly results in death. It is recommended therefore that storage companies submit their goods to two or three changes, varying the temperature from about 18° F. to 40 or 50 degrees, Fahrenheit. After this preliminary treatment, they should be kept permanently at about 40 degrees Fahrenheit. Any lower temperature is a needless expense.

Bayfield Beaten

(Continued from page 141.)

them we could not think of letting that wine run on the ground and waste so we caught it in our drinking cups.

Concluding that the Raisin and the Wine grape industry was not a paying business I turned to the dried fruit business and I found that thousands of growers of peaches and apricots still had their crop on hand without even a prospect of being able to market it at any price.

The driver of the auto I was in drove to his farm, a beautiful place of 100 acres, every foot of it cleared and planted and in perfect cultivation, with good buildings, the land supposed to be easily worth \$1,000 per acre, and he had 60 tons of dried

peaches and about the same amount of raisins and wanted to sell them through our Wisconsin Association at 3 cents per pound and the finest dried fruit I had ever seen, this would, if he had been able to sell at even that low figure have returned him about \$7,000 on a farm (said to be) worth \$100,000, from which he would have to pay for growing and harvesting this crop.

After all this investigation in the state of California I concluded that if one could live on his income, or if he could live on climate and scenery alone and could change his system so he could make himself believe that thousand dollar land that would not pay interest on the investment was better for a man to own than land that cost \$50 and would produce \$400 an acre then California would be the state to emigrate to. The fruit business in California, no matter what kind of fruit or nuts you grow, nor in what part of the state, but especially citrus fruit growing is but a wealthy man's plaything. The climate is all that is claimed for it.

I remarked to a Grower who was boosting the country, that Californians were all good Boosters and he replied: "It's a part of the business. If I can't get your money I am bound to help the ether fellow get it," and from what I saw and had heard I did not question the man's statement. Seeing is believing. This certainly is enough for one edition and if it does not decrease our membership in the Wisconsin Horticulture Society I'll write another chapter later, on Oregon, Washington, Idaho and Colorado on the apple business as I saw it and on small fruits.

Fraternally yours,

F. Kern.

Asparagus

Anyone with a good asparagus bed is to be envied at this time of year—and yet some people get tired of it if the serving is not varied. (I always wonder what St. Peter will do to the people who always grumble even at good things. Will he turn them away from the pearly gates?)

Gather asparagus before it gets tough at all, wash carefully and pare the lower end if tough, let it stand in cold water until it is to be cooked. If to be served boiled cut or snap off the tough ends for soup, if stewed as is best when the quantity is scant, cut into one-inch lengths, laying aside the tough pieces for soup.

Asparagus is most delicious boiled and then neatly served on toast. The toast may be buttered only, or buttered and then softened with a little of the water the asparagus was boiled in, and served in the Hollandaise sauce, or dry and covered after the asparagus is laid on it, with salt and pepper and hot cream, or a white sauce. Asparagus boiled, but still a little firm when cold is delicious served on lettuce with a mayonnaise, boiled dressing or a sour cream dressing. Asparagus cream soup is delicious. Before boiling the asparagus stalks cut off the hard, firm ends or butts, cut them in half-inch pieces, and boil them with the tender stalks. After removing the tender edible stalks, leave the tough ends in the liquid and cook until the liquid is boiled down one half its bulk. Strain out the tough stalks and add to one pint of liquid thickening (two tablespoonfuls [level] of butter and two [level] of flour rubbed together) salt, pepper, a teaspoonful of onion juice, and a pint of hot milk, or better still, half milk and half cream. Cut

up two or three tender stalks in half-inch pieces to put in the soup, and serve with croutons.

Scalloped or Breaded Asparagus

Cut one bunch of asparagus into one-inch lengths using only tender pieces. Let lie in cold water a while and then boil half an hour. Make a sauce of 2 tablespoons of flour, 2 of butter, and 1 pint of milk, salt and pepper. Boil the eggs hard about

Story of Crisco." (All measures level).

Line a criscoed mould or bowl with cooked tips of asparagus. Make in a double boiler a sauce of 2 tablespoons of Crisco or butter, 1 teaspoon salt, pepper, 1 cup cream added slowly, and cook five minutes. Beat 4 eggs thoroughly, add 1 cup of cooked asparagus tips and then the beaten eggs to the sauce. Turn the mixture into the mould which is lined with the asparagus tips,



A glimpse of the City Garden work in Madison. These gardens are in a gravelly soil so poor that the average farmer would disdain to plant to navy beans and yet the crops produced were profitable even from the standpoint of a market garden. It is really too bad that the poor country boys lack such opportunities.

20 minutes, cool in water and chop fine; add the eggs to the sauce. Put a layer of asparagus tips in a baking dish, sprinkle well with crumbs of bread, then a layer of sauce, repeat until dish is full, (using altogether a cup of bread crumbs) the top layer being crumbs.

Bake 20 minutes in a quick oven.

Adapted from recipe by Mrs. Sarah Tyson Rorer, in "Vegetable Cookery and Meat Substitutes."

Asparagus Loaf

Adapted from recipe by Marion Harris Neil, in "The

Set the mould in hot water in a pan, and cook 30 minutes in a moderate oven. Meanwhile fry some triangles of bread until a golden brown, to decorate the dish when the hot mould is turned onto the platter. Serve hot. If flour is used to thicken the sauce less eggs will be needed.

It is Not Too Late

To plant a few trees around the school yard, its your school. No doubt trees are plentiful nearby.

Buy a spray pump and use it. If you don't know ask questions.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 12 N. Carroll St., Madison, Wis.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second matter May 31,
 1912, at the postoffice at Madison, Wisconsin,
 under the Act of March 3, 1879.
 Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of Wisconsin Horticulture. Remit fifty cents to Frederic Cranefield, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and pays for two years. Personal checks accepted.

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Bulletin No 19

This is the last of the W. S. H. S. bulletins issued and about fifty copies remain for distribution. It tells about spraying. It contains no long technical descriptions of plant diseases nor life histories of insect pests, only a few plain directions for mixing and applying Bordeaux, arsenate of lead, lime sulphur, etc. Free as long as the supply holds out.

Ask questions.

The Farmer Sprays—Not

The farmer now sprays his potatoes because he knows he must do it or lose his crop. So also he thinks maybe he will spray his fruit trees, sometimes really means to spray his fruit trees but rarely or never does spray his fruit trees. Next fall he will have a mess of wormy and scabby apples. Whose fault is it? Don't answer by mail, telephone.

Some fruit growers are like that too; they talk about spraying but don't. There may be a little excuse for the farmer but none for the (so-called) fruit grower, he is simply a bonehead.

Returning now to the farmer who was spraying potatoes. He uses Bordeaux and Paris green as a combined spray to prevent potato blight and to kill beetles, or ought to. This is a very good combination for apple and plum trees also. First spray just after the blossoms fall, both plum and apple. For apple, second spray ten days or two weeks later. Spray with force, not sprinkle and if sufficient muscle or gasoline is used these two applications will be sufficient.

Who Wants a Boy?

The City Garden Association of Madison has done many wonderful things but none more remarkable than this; instilling the love of gardening in the hearts of many, many boys and girls. Not all of these youngsters caught the spirit of the game; some hated it, some were indifferent and the majority worked well only as long as the novelty held.

To a few, just a few, of all this crowd of boys and girls who dug and hoed and sweated under July suns, who played

tricks and tormented the soul of the instructor, to a few the Spirit of Gardening, younger sister of Pomona and Ceres, descended and whispered secrets and ever afterward these favored ones were different from their fellows. They *loved* the garden and will always love a garden.

Frank O— was one of these. At first he went into the work because he was told he could make some money and the O's needed money, but before the season ended he became a gardener in heart and soul.

Fate however sought out the O's home for its own. The father died, the mother is an invalid and all the responsibilities and miseries of the world rest on Frank's shoulders.

He is twelve but looks fourteen. He is sober in manner willing and able to work. He said yesterday: "I *like* the garden and I want to be a gardener." "I am just longing to get out and dig and plant again."

Frank has done so well in school that his teacher has promised to let him out two weeks before the close of the term or about June 1st.

Who will take this boy, give him a chance to learn gardening, give him a chance to work without expecting of him a man's work, give him a chance to play sometimes? He will expect very little pay just a little so that he can feel that he is helping at home.

Here is a chance for some one to "lay up treasures." Who will do it? Write the Editor.

Spray the old orchard, just once if no more. A barrel of Bordeaux and 2 lbs. of arsenate of lead costs about 75 cents. Two hours, two men and one horse \$1.25, total \$2.00. Two bushels clean apples pays the bill.

The Tip-Worm

(Continued from page 139.)

flowage) in the immediate neighborhood of the State Bog showed but little of the tip injury. We resanded the State Bog in the fall of the season in which this injury occurred, and the following spring held the winter flowage late (until the 17th of May.) In 1912, but little of the tip injury occurred on the bog. The bud formation for the following season was almost perfect and resulted in the splendid crop we had last year. Last year the injury was again considerable, though the bud formation was fairly good, and our present crop, following those conditions, is a fair one. This year, if you examine the bog carefully, you will see that the tip injury has been very severe and that the bud formation promises to be poor as a result. I referred to this injury in my report a year ago (page 46), and, at that time, still clung to the notion that it was due primarily to a root injury. I have been making careful examinations of the tips every year since I first noticed this trouble, but until this season, have failed to discover the cause of the injury with certainty. I, of course, from the first, realized that it might be due to insect work and suspected the tip worm, but I thought I was better acquainted with the work of that insect than I really was. I knew that the maggots of the broods which appear before blooming time always made their cocoons on the tips of the vines and that I could invariably detect their work by the presence of the cocoons even if the flies themselves had emerged and disappeared. For this reason, I thought I ought to at least find cocoons, if not maggots, in connection with tip

injury coming after the bloom, if it was caused by this insect.

This season, I decided to make a special effort to discover definitely, if possible, the cause of the trouble. I began examining the tips before they showed signs of injury, while the bog was still in full bloom, and soon found there were maggots in a good share of them, as many as five being sometimes present in one tip. In less than three weeks, the infested tips had dried up, the maggots having disappeared without leaving cocoons. I then knew the tip worm had caused the injury observed in previous seasons. I soon found that the maggots of this, the most injurious brood, leave the tips and go down to the sand under the vines to form their cocoons. It is not known how the insect passes the winter, but I hope to find out soon. It may remain in its cocoon and be able to endure winter flooding.

As soon as I found this insect so abundant on the State Bog, I began to examine other bogs and found a great variation among them in the amount of tip worm damage, due, apparently, to the treatment they had received. Two-thirds of the tips on the State Bog were injured, and on a bog in Carver practically all were hurt over an area of four or five acres. On some bogs, however, the damage was only from three to five per cent. I examined from fifty to sixty bogs in the course of this investigation and, as a result, arrived at the following conclusions:

1—That flowed bogs, in case they had not been sanded before the first of May, were, as a rule, much more seriously injured than were strictly dry bogs (without winter flowage). In its relative abundance on dry and flowed bogs, the tip worm seems

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to be in a condition similar to that of the flowed bog fire worm, though the reasons for the condition may not be the same with both species.

2—That flowed bogs, which had been resanded the fall before or in the spring before the first of May, were, as a rule, much less seriously injured than those not

(Continued on page 150.)

Did Caesar Eat Onions?

Caesar was strong; did he eat onions? Charlemagne was great; did he like sauerkraut? On these matters history is silent, but one thing is perfectly clear, from the very earliest of recorded history of the onion and the cabbage until the present time we know that the onion maggot has preyed on the onion and the cabbage maggot has destroyed cabbage and until now no one has arisen to say nay.

The adult of both species is a fly resembling the house fly. The eggs are deposited on the stems of the plant, close to the ground, or in soil crevices near the plant. The maggot bores into the stem, destroying the plant. Divers persons have puzzled for ages on plans for keeping the *maggots* out of the plant. Repellent substances such as kerosene mixed with sand, etc., have been used, but with only partial success. Goff, in 1892, achieved partial success when he devised the tarred paper collar and an ingenuous tool to cut it, but this was applicable only to cabbage plants.

Now comes Prof. J. G. Sanders with the idea that the proper point of attack is the adult fly. Kill the fly and there will be no eggs, no eggs no maggots. Very simple. It works. In the April number, page 127, Mr. Howard described the poisoned bait and its method of application for onions. After request, compulsion and threats of personal violence, Sanders has admitted that he tried the same poisoned bait on cabbage plants last year, beginning in the seed bed, and that it was successful. Mr. Thompson of Thompson Bros., Kenosha Co., who used the bait, writes:

"The seed bed was practically

free from maggots during the season, with the exception of a little injury done to the outside rows of the first sowing. Our neighbors who did not try prevention lost nearly all their plants. We gave away enough plants to them to have set out twice our own acreage and still had a lot left."

From this it may be inferred that we now have a satisfactory remedy for the cabbage root maggot. We of Wisconsin also have Saunders. The maggot most often attacks early cabbage, and it is now too late in the season to make use of the remedy, but not infrequently late cabbage is attacked. The seed bed is the place to begin operations, something impractical with the paper bands. Here is how to do it:

Poison Bait Spray for Onion and Cabbage Maggots

"Dissolve 5 grams ($\frac{1}{6}$ oz.) arsenite of soda in 1 gallon hot water, add $\frac{1}{2}$ pint of black molasses, and stir. Apply in *coarse drops*, using a sprinkler or whisk broom, once a week, (twice a week in rainy weather) from time of appearance of plants above ground until a month after the plants are set out in the field."

J. G. Sanders.

P. S. This cabbage maggot remedy will no doubt be set forth at length in scientific journals at an early date, but *not* just as here written. However, be that as it may, scientific journals kill no maggots.

The fly is attracted by the sweets and invariably stops to get a meal before proceeding to business. Hence the coarse drops, hence the poison, hence the fly.

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by L. V. FRANCE

Wisconsin College of Agriculture

Weak colonies of bees never return a surplus of honey. Build up weak colonies during May by feeding. Careful attention and proper management in this month and in June will prevent much of the trouble from swarming in strong colonies. Strong colonies without proper management will swarm excessively and cause much trouble.

Weak colonies should be fed through the month of May at least twice a week using at each feeding one pint of the following bee syrup, made by dissolving equal parts by measure of sugar and water. Always feed at night to prevent robbing.

Between fruit bloom and clover bloom in early June there is often an interval of a week or two; during that period a quart of sugar-syrup fed to bees is worth at least ten times its cost.

Never spray your fruit trees during full bloom with any poisonous substance. Spraying in full bloom does not aid in the control of any insect pest, but on the contrary, injures the blossoms and prevents full setting of fruit. The use of poisonous sprays in full bloom endangers the life of the bees of the entire neighborhood, and spraying at this time is contrary to a state law.

Bees are the fruit-growers' best friends and should be protected at all times. If there are no bees in the neighborhood of your orchard or small fruit plantation, you should secure a few colonies yourself.

Order *now* all the supplies you will need. The beekeeper who orders supplies after he feels the need of them is generally two or

three weeks late and will lose much of the honey harvest.

Queenless colonies should be furnished immediately with a young, fertile queen or a comb containing eggs and young brood.

Supers placed on the hives too early retard the bees in their work because it requires heating of the empty super before there is a necessity for it.

Marketing of the honey is far more important than most beekeepers think. The beekeeper who tries to market a poor quality of honey does not deserve half the price he usually receives. Furthermore, he is injuring the demand for this fine product.

The College of Agriculture at Madison, through the Department of Economic Entomology, is contemplating the rearing of a few hundred of the very best Italian queens for sale to Wisconsin beekeepers at one-third or one-half market price. Watch for a later announcement.

A good beekeeper will quickly observe and control any robbing in his apiary. If there is bee disease within two or three miles of your apiary, your bees are almost sure to become infected, especially if you allow robbing to continue.

Watch the brood very carefully every time you examine your bees. If at any time you observe dead, discolored brood, cut out a sample and send immediately to the State Apiary Inspector, Mr. N. E. France, Platteville, Wisconsin; particularly, if you suspicion that your brood has not been injured by cold.

In case American foul brood is present, the brood in the comb dies just before or just after it is capped over, decays and becomes a dark, chocolate-brown

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color with a ropy and stringy consistency when touched with a stick. This decaying mass dries down into a black scale that cannot be removed by the bees and will remain in the comb forever. Burn all infected combs and honey in the ground and cover deeply. Force the bees to build new comb for two days and then shake the bees a second time into a clean hive filled with full sheets of foundation. This treatment should be given at the beginning of the clover bloom.

In the case of European foul brood the brood dies before capping and turns to a pale yellow color and sinks into various unnatural positions. The dead bodies of the brood remain loose in the cells, but colonies badly affected remove very little of the dead brood.

The best treatment for European foul brood is to burn the worst affected combs, kill the old queen and introduce a high grade Italian queen that produces bees immune to the disease. Most queen breeders sell queens of this kind.

We answer questions.

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The Land of Flowers

A copy of the March "*Wisconsin Horticulture*" has just come into my hands. It is a "classy" little paper and I was much interested in this issue and read it through from "kiver to kiver."

When I got to the poetical, exuberantly-worded ending of "The Queen of the Garden," I just smiled. For I happen to know the author of that sketch and I knew that it was not written for effect but came straight from the heart.

But I just wanted to tell you that the South is the true kingdom of the "Queen of the Garden."

My rosery has been established now for six years. It contains over a hundred bushes of perhaps 50 or 60 varieties. The teas and hybrid-teas are the most beautiful with us, but

still the hybrid perpetuals do very well, earning here their name of perpetual bloomers.

Of all the roses in the garden, the Cochetts stand peer in vigor of growth and perfection of bloom and foliage.

Then come Helen Gould, The Bride, Etoile de Lyon, Meteor, the La France, K. A. Victoria, Clothilde Soupert, McArthur, Marechal Niel, and so on down the list.

I have never sprayed my roses for thrips, aphids, or slugs. The heavy salt-laden dews from the Gulf of Mexico do that for us each morning. By the time they are dissolved, 9 a. m., the semi-tropical sun makes feeding too warm work for the insects.

But there is a fungus that attacks the roses, here, for which we spray with bordeaux or lime-sulphur. Also, in the light, sandy soils the Nematode or

root-knot hinders their best development.

The roses bloom here ten months of the year, taking a slight rest through January and February, and of course in the dry, hot months they are not so fine, unless given especial care.

But, I do believe, that if I could present W. J. Moyle with a basket of my roses at their best, for *once*, words would fail him.

Then I was interested in the photo of flowering bulbs. If Miss Memhard had been here the last 4 weeks, I could have taken her where she could have gathered polyantha narcissus, daffodils and jonquils by the very armfuls. These bulbs and lily, crinum, and amaryllis bulbs seem to luxuriate in this soil and climate and increase and bloom with about as much care as you give your rhubarb-patch.

Of course, everybody don't have them as most of us are too busy "hoeing cotton" to get money to buy our "bacon, lasses and Injun meal," to fuss with "them triflin' things."

The other morning I went out and gathered a bunch of Campernelles, Jonquils, Von Sions, Incomparables, Trumpet Majors and others, and as I drank in their golden sweetness, what do you suppose I thought of?

They brought to mind, memories of a banquet given by the Wisconsin Horticultural Society at Madison in 1905. The table decorations were the flowering spring bulbs.

I had one of the "times of my life" that night. Why shouldn't I? I was young, in congenial company. Dr. Loope presided, all was light and merriment, and at the close of the evening, a gallant young fellow filched one of the bouquets of daffodils and presented them to me, to my *immense delight*.

Thus as always, after many years, does the sight and fragrance of flowers awaken memories that, otherwise, might lie dormant forever.

I beg your pardon, Mr. Secretary, for this long letter. But you know, it is Spring. I will feel better to get this out of my system. And it was your magazine that provoked me to it.

M. M. K.,
Alvin, Texas.

Remember to plant what may be called a "flavoring bed" in some nook in the garden. These flavors are so useful in dressing up made over meats, stews, and soups. Mint, parsley, garlic, bermuda onions (small) dill, thyme, celery (for tops) sage, marjoram, taragon, etc.

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

by extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

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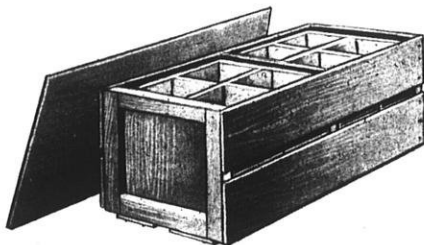
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Shading the Seed Bed

Few beginners realize how much is gained by shading the seed bed for starting perennials and keeping them moist. Several ways are simple and practical:

I. Cover the seed bed after watering with a newspaper and over that lay a piece of damp sacking. Remove the newspaper as soon as germination starts and then the damp sacking when the plants are well up.

II. Cover the seed bed with wooden frames covered screen fashion with tobacco cloth. These screens can be used longer to shade young plants, until they are well grown.

The Tip-Worm

(Continued from page 145.)

thus resanded. Those most hurt had, in nearly every case, not been resanded for two years or more.

3—The Late Howe variety, as a rule, showed distinctly more injury than did the Early Black.

4—No bogs showed much tip worm injury when traces of the effects of severe frosting were in evidence.

5—There seems to have been an exceptional tip-worm abundance this season. I will not try to say why resanding, winter flooding, difference in variety and frost have bearings on the prevalence of this insect, for I do not feel that my investigations have shown me enough to justify anything more than mere guesswork in this regard. I do feel justified, however, in recommending resanding every other year as a wise preventive practice against this insect.—(From the report of H. J. Franklin, published in the Wareham Courier, Wareham, Mass.)

It is Not too Late

To plant an asparagus bed: open a furrow with plow, as deep as it will run, then take out four inches more of subsoil with spade, mix well rotted manure and top soil to replace the four inches taken out; set thrifty one year old plants in trench and fill trench during season as plants grow.

To set a strawberry bed: get plants from a neighbor, but first have ground ready to plant; set plants two feet apart and rows three and one-half feet. If plants have made much growth when transplanted shade each one with a shingle for a few days. Set neither so deep that "crown" is covered nor so shallow that roots stick out. Fifty plants well cared for will supply ordinary family next year.

To spray apple trees for oyster shell scale or other bark lice with lime sulphur, *if the leaf buds have not started*. If only the tips of leaflets are pushing through the bud scales no great harm will result from using lime sulphur 1 to 6 or 1 to 7 for scale. Of course it should have been done earlier.

The Name on the Can

At the suggestion of Mrs. Julian Heath, Chairman of the Committee on Home Economics of the New York City Federation of Women's Clubs, the following resolutions were adopted by that body:

Whereas, It has been the aim of all women's organizations to encourage and promote the use of such food products as are produced, handled and marketed under sanitary conditions; and,

Whereas, This end can only be achieved and insured when the *manufacturer's name is plainly placed upon the container or product*, so that the manufacturing plant may be open to inspection and *the manufacturer held responsible for the quality of his product* and the sanitary conditions under which such products are produced; therefore be it

Resolved, That the City Federation of Women's Clubs urge all food manufacturers to have the name and address of their factory plainly marked upon each container.

From The Housewives League Magazine, March, 1915, p. 14.

Resolutions—adopted by the National Committee of the Housewives League.

Whereas, Since the inception of the Housewives League movement, it has been our aim to encourage and promote the use of such food products as are produced, handled and marketed under sanitary conditions; and

Whereas, This end can only be achieved when the manufacturer's name is plainly placed upon the container or product, so that the manufacturing plant may be open to inspection and the manufacturer held responsible for the quality of his product, and

Whereas, etc., etc., etc. (From same as above.)

Grades of Canned Peas

- (No. 1) Petit peas usual cost per can..... 25 cts
 - (No. 2) Tiny sweet peas. 20 cts.
 - (No. 3) Extra sifted early June peas..... 15 cts.
 - (No. 4) Fancy early June 10-12 cts.
 - (No. 5) Sweet peas..... 8 cts.
- Given by Mrs. Heurth at lecture.

Cucumber Diseases Require Attention

There have come to the Department of Agriculture this year an unusual number of reports and complaints of losses to cucumber growers from blights of foliage or fruit, particularly in certain north-central states where pickle growing is an important industry.

These injuries have proved upon investigation to be due to one or another of several distinct troubles: blighting of the foliage by downy mildew or anthracnose, diseases which have already proved controllable by spraying with Bordeaux mixture; to the bacterial wilt, a disease the cause of which is known and for which a remedy is being sought; to the pickle spot, a disease of sporadic occurrence and not yet remediable; or in some cases to a disease of still unknown nature called white pickle.

Those troubles not already worked out are being investigated by the state experiment stations in Wisconsin, Michigan, and New York, or by the United States Department of Agriculture, and a plan is being formulated jointly by these institutions to carry aid to the growers in case of a recurrence of the diseases next year.

It will have to be proved by experiments whether or not spraying will be generally profitable. The Department of Agriculture points out to the farmers that a long rotation of crops is an important precaution, which should be practiced by all. There is no evidence that these diseases are spread through the seed.

Further details regarding these diseases follow:

(Continued on page 152.)

THE GREAT NORTHERN NURSERY



We have over one hundred thousand No. 1 Apple trees just like the ones shown above. Write us for prices before you place your order for trees. We are the largest growers of apple trees in the state, we are confident we have the stock to suit you and will be pleased to figure on your wants.

THE GREAT NORTHERN NURSERY CO.,
25 Linden St., Baraboo, Wis.

Personal and confidential: The photo that I am enclosing shows my faithful dog Jack in the background. This is a trade-mark no other nurseryman can use for he never would be found in any other nursery. I don't believe a better block of apple trees was ever grown in Wisconsin. Don't they look it?—M. F. F.

**“We have a Fine Lot of
Plants for the Garden”**

SEND FOR LIST

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SHEBOYGAN, WISCONSIN

**Everbearing Strawberries, Apple
Trees, Plum Trees, Small
Fruit Plants**

**At LOW PRICES
WISCONSIN GROWN**

For Wisconsin Planters Price List Free
Kellogg Trees means “Blue Ribbon
Quality”
61st year

KELLOGG'S NURSERY
Box 77 Janesville, Wisconsin

**The Hawks
Nursery
Company**

are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

Wauwatosa, Wisconsin

Cucumber Diseases

(Continued from page 151.)

Downy Mildew

This is a fungus disease affecting the cucumber plant principally through the leaves. It attacks the old leaves in the center of the plant first, and from there progresses outward, the young leaves at the tips of the branches living longest. It causes first a yellowing of the leaves and faintly defined angular spots, bordered by veins. These become more distinct as the disease progresses, and if the weather is moist the under side of the spots may be tinged with purple. The disease spreads slowly in bright weather, but in cloudy, humid weather often develops with the greatest rapidity, so that fields quickly become as if scorched by fire. The fungus lives through the winter in Florida and probably spreads northward each summer. There is also good evidence that it lives over in greenhouses, which may later become centers of local epidemics. The cucumbers which develop after the disease has attacked the vines are usually of inferior quality. It is exceptional for this disease to be severe so far north as Michigan, and it may not recur again for some time. On the other hand, it is possible that if weather conditions favor it, it may be equally severe another season.

Anthraco-nose

This disease appears as circular brown spots from 1-4 to 1-2-inch in diameter, on the leaves of cucumbers and melons. These spots at first have white centers, but in the later stages become dead and often tear, leaving holes in the leaves. They are distinguishable from the angular

spots of the downy mildew except when the latter have grown very slowly. On the stems anthracnose causes elongated discolored and shrunken areas, which finally lead to the death of the plant. The fruit also is often spotted. There is evidence that this disease lives over winter in the dead vines or elsewhere in old fields, and the destruction of such vines, together with rotation of crops, is recommended as a means of prevention.

Spraying the Remedy

Both downy mildew and anthracnose can be controlled by thorough spraying with Bordeaux mixture, made up of 3 pounds copper sulphate, 6 pounds stone lime, and 50 gallons of water. The copper sulphate should be dissolved in 25 gallons of water by suspending it near the surface of the liquid in a burlap sack or other container. The stone lime should be slaked thoroughly and then diluted with the other 25 gallons of water. The two solutions should then be poured together into a third barrel and thoroughly stirred. It is essential, however, to begin early before the disease makes its appearance, to spray thoroughly so that the leaves of the plants will at all times be covered with a thin film of the Bordeaux, and to

FRUIT PACKAGES

of all kinds, Farm Crates, Storage Bushels, etc.

For Special Prices Write To

STOLLE LUMBER & VENEER CO.

Tripoli, Wisconsin

"Garden and Forest" For Sale

A complete file Garden and Forest, 1888-1898. Bound in ten volumes, half leather, good condition.

F. CRANFIELD

701 Gay Building Madison, Wisconsin

spray at close enough intervals so that the new growth will not be subject to fungus attack.

Wilt

When a cucumber or melon vine suddenly wilts throughout its length and dies without appreciable spotting of the leaves, the trouble is usually caused by a species of bacteria which enters and clogs the water-carrying vessels of the stem. This wilt disease is spread by leaf-eating insects and probably also by soil infection. Rotation of crops is advised for its control, together with the addition of a fungicide like Paris green to the Bordeaux mixture. The Bordeaux mixture acts as a repellent to the insects and helps to check the spread of wilt. There is experimental evidence to show the value of spraying for wilt, but it should not be expected that this disease will be as fully controlled in this way as the leaf blights. It is also important to pull and burn diseased vines as soon as they begin to wilt, in order to lessen the spread of the disease.

COLLEGE UNIVERSITY OF WISCONSIN

WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY
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Volume V

Madison, Wisconsin, June, 1915

Number 10

Misinformation

Relative to Northern Wisconsin

E. A. Oscar, Washburn, at
Annual Convention

If someone had said to us in the northern peak of the state, ten years ago "This country around the lake will before very long be one of the greatest fruit regions in the world," those of us who have lived there for the past twenty years, would undoubtedly have called the man a fool, if he was a small man, or would have walked away with that knowing smile, indicating; "You better have your head examined, there is something wrong with you. The county judge's office is up there in the court house, better go and talk to him." Yet that is what the region is coming to. And this in spite of public sentiment at home and prejudice abroad. There are many conditions that we have had to contend with and the greatest of these is perhaps the ability to get other people to see and believe in reasonable things.

There are two classes of men who must first be educated to see the light. The first is the man who is guillible, who is easily per-

who will not be persuaded, who is adamant. He refuses to investigate. Your country is too cold, the winter is too long, you



One of the Madison School Gardens, 1914. They are not "Charity" gardens but playgrounds, girls as well as boys, little tots of six and seven years work all summer through and consider it great fun.

sueded, who believes we have a most wonderful country, a country flowing with milk and honey, and that both the milk and the honey may be easily had without exertion. The second man is he

have nothing but a hunting country anyway. It is needless to say we do not desire either of these. The points I wish to make can best be illustrated by

(Continued on page 157)

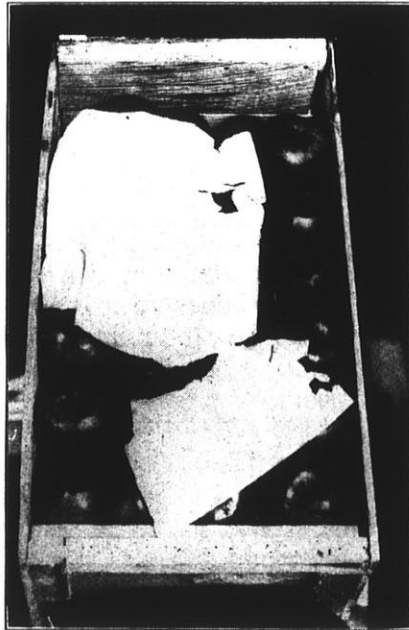
Boxes, Barrels and Apples

All indications point to a bumper crop of apples in Wisconsin this year. The bloom was extraordinary, the weather conditions favorable for a good set of fruit and the wise grower will soon be making arrangements for harvesting and marketing his crop. No doubt the bulk of the crop will be marketed in barrels this year as in the past but it is also probable that many growers will be tempted to try out the box pack. At our convention last December the box vs. barrel question was discussed at some length. Mr. J. S. Palmer who sometimes packs in boxes speaking for the barrel and Mr. F. Kern who often packs in barrels maintaining the merits of the box. That discussion is altogether too extended for publication in W. H. but will be published in full in our Annual Report.

In the meantime the editor offers herewith an opinion or two on the subject with the understanding that no one is under any obligation to accept them.

Firstly: If apples are to be packed and sold in bushel boxes in Wisconsin to compete with the western box apples, the packing must be done better than it has so far been done. The so-called "jumble" pack might better be called "tumble" pack and is no pack at all. If we are going on the market with a box pack it must be a *real* pack, the fruit must be graded carefully and practically free from worms and spots and packed in tiers. It costs money to do this. Further, thinning of the fruit during the growing season and more and better spraying must be practiced or less than ten per cent of the fruit will be fit for box pack.

The pictures and explanation in this issue show a Wisconsin attempt to imitate the western box pack. This box was packed in Dodge County in September, 1913, and bought on commission row in Milwaukee. Similar examples have been found all over southern Wisconsin, weak futile attempts to imitate western box packs. Such work is unprofitable and will bring discredit to Wisconsin apples.



This is a picture of the "Wisconsin Box Pack" referred to elsewhere in this issue. No paper lining, no "bulge".

Manager Kern of the Bayfield Exchange follows a different plan and so far with success. He does not claim to have a tier pack but merely fills the box with apples reasonably uniform in size and a trifle more than level full. The top is then clamped down pressing the fruit sufficient to prevent shaking and bruising. This is a box full of apples but not a box pack. If these boxes full of apples sell well and the expense of packing and packages for three bushels is less than for a barrel, who shall say it is not a good way to pack apples? It is

probably an improvement over the bushel basket extensively used by Michigan growers.

Apples can be packed honestly in barrels. A Michigan grower drifted into Madison last September with a half-peck of apples in his hat. He showed these to the Madison merchants and offered and agreed to ship in car load lots at a reasonable price with a written guarantee that if any apples were found in any of the barrels, top, sides, or middle, poorer than the samples he would make no charge for the carload.

The merchants accepted, he filled the orders and collected without protests. The apples were as represented.

This year he can sell as many apples in Madison as the market demands.

To conclude; pack apples in boxes, if that seems the cheaper way, the "tumble" pack will do, but do not expect to compete with western tier packs by this method. It is perfectly possible and feasible to pack honestly in barrels.

For Bugs on Roses

For aphid (green lice) on roses spray with a nicotine solution. Various brands are on sale. A perfectly good solution may be made by pouring two quarts of boiling water over a pound of tobacco stems. This decoction may be used with safety on roses without dilution. Do not *boil* tobacco in water, this drives off the nicotine, just *steep* the stems. Almost any form of tobacco will answer but the stems are cheap.

Tree fruits suffered only slightly from frost early in May.

CRANBERRY NOTES

By J. W. FITCH

Pruning

By S. N. Whittlesey

The object sought is to get rid of the upper or superfluous long vines or runners leaving only uprights standing erect and evenly distributed so that the picking of the crop can be easily and thoroughly done with the rake which is more practicable and less expensive than picking by hand.

The method is to **first** comb or straighten out the vines with a hand hay rake—I use a horse pruner. This is a rake 6 or 7 feet long hung to the frame and dragged immediately in front of a corrugated roller of small diameter. The teeth of this rake are short sharp knives 6 inches apart—the bar holding these knives is carried on shoes or runners of heavy strap iron bent and bolted to ends of this bar so that the knives do not comb or cut too low, and can be tilted at will by the operator to dump any accumulation of vines or grass on the knives. Second—the hand pruner which is a light rake with say 4 teeth 6 inches apart of sharp knives, the operator backing toward the east and twitching his rake swiftly back and forth across his track doing a strip 5 or 6 feet wide, always working from west to east, both combing and pruning. I drive the horse pruner first west with the knives slung up above the vines and carried by rollers, then go back over the same track with the knives dragging. We take the machine west because we can't go all the time east and we finish with the east trip because the vines seem naturally

to lean toward the east anyway, they look very unhappy if we reverse the process.

Cranberries in Wisconsin

J. W. Fitch

The pioneers of Wisconsin found cranberries growing wild more or less on all the marsh land in the central and northern part of the State. They were regarded as common property free to any one who might gather them. The State enacted laws regulating the time of picking them. The condition of the country at this time was so different from what it is at the present time that it had best be noted. Northern Wisconsin used to be regarded as practically all swamp or low land, and in the early days it was undoubtedly much wetter than at present, when first known of the cranberry vine it grew on floating bog, in fact one of the first surveyors on the cranberry bogs, Mr. D. J. Blackstone about 1871, said that the country never could be drained as there was no fall at all, since the water has lowered it has been found that the fall is about 4 feet to the mile.

The early settlers found it quite profitable to gather these berries but on account of lack of transportation facilities this was only in a small way, and large crops went to waste, later when settlers become more numerous along about 1870 there was a large crop of wild cranberries; James Cary of Berlin gathered from his marsh a crop that netted him \$50,000. This crop suggested the idea that it would pay to buy those swamp

lands from the State and make private property of the wild cranberries they produced, and people from Berlin learning of the great tracts of such land in the Wisconsin Valley the best lands were soon taken up, and the old Wisconsin Valley railroad coming through in 1872 provided transportation to market. These new owners of cranberry bogs were wholly ignorant of right methods for treating cranberry bogs to insure a crop of fruit. Cranberries had been successfully cultivated in New Jersey and on Cape Cod, and our people got the idea that the cranberry bogs should be ditched, which was done and soon the bogs were ditched and drained. This entirely changed the normal conditions, the bog instead of floating settled down, and many wild bogs soon became worthless and were sold for taxes. The fires started by the new settlers often burned out many vines.

In the winter of 1887 a few growers in the vicinity of Cranberry Center, met and organized a society for the study and discussion of the best methods for growing cranberries, and called it the Wisconsin State Cranberry Growers Association. The first meeting was held at New Lisbon, Jan. 4th, 1887, and on Feb. 8th, 1887 the organization was completed at Tomah and it may be of interest to note that a telegram from a grower, J. B. Stickney of Wauwatosa contained this resolution, viz:—"That each of us strive for the perfect acre." This Association continued to increase in numbers and intelligence and a study of its reports show a deep interest in the cultivation of the cranberry and many methods and suggestions were offered, and it is very

(To be continued in July issue)

Obituary

Prof. H. E. Van Deman, well known to many of our members died at his home, Washington, D. C., April 28. The following tribute by H. W. Collingwood, editor of the *Rural New Yorker*, will appeal to those who knew Mr. Van Deman:

The death of Henry E. Van Deman removes one more of the old guard of strong men who had so much to do in organizing and developing the mighty horticultural interests of this country. Few of the younger generation of fruit growers can now realize what these old pioneers did for us during the years following the Civil War. They organized and classified varieties, and patiently worked out their adaptability, kept up enthusiasm in planting and cultivating, bred the necessary faith in future markets, and developed the transportation which made nation-wide distribution possible. What a debt we owe to these great men—most of whom were so eager to lead and investigate that they never stopped to pick up the golden harvest which those who follow generally find. It is true that most pioneers receive their pay in glory rather than in gold. Some of these strong men developed transportation services, others grew successful orchards, and still others gave choice new varieties to the world. Most of them were specialists—the master of some particular branch of horticultural service. Prof. Van Deman excelled as a judge and student of varieties. He knew fruit as few other men did. What the opinion of a justice of the Supreme Court meant at law, a decision by Van Deman meant at a fruit show. Parker Earle, in his forthcoming book, tells what some of these fruit-growing opinions meant in

the earlier days when new and unimproved sections were seeking recognition at the larger fruit shows. Prize-winning in those days meant floods of new settlers and market opportunities for new sections. Prof. Van Deman did much of the judging at these times when a fruit decision meant so much for Florida, California, Oregon or other sections where fruit growing was developing. It required strong



Another view of the W. B. P. Eighty per cent of the apples in the box were badly bruised.

character and sound knowledge to act in such cases, and Van Deman possessed both qualities. He served his country well in war and peace. A plain farmer's boy, he never lost touch with the true, simple life of the old-fashioned farm. We knew him as a man of strong, earnest character and high ideals, and as a sincere and helpful friend. The old guard marches on, but the work done by those strong old fighters will ever be with us as fragrant and green as the orchards they planted and the dreams which came true through their labor of love

John A. Gaynor

It is with great regret that we speak of the death of the Hon. J. A. Gaynor of Grand Rapids, Wis., who passed away at the home of his brother James at Cranmoor where the Gaynor Bros. Cranberry Bog is located. Mr. Gaynor had been ailing for some time, but no one suspected his case was so serious and word of his death came as a shock to his many friends. Mr. Gaynor was thoroughly devoted to the development of the cranberry industry and a perusal of the back reports of the association will disclose how intense and sincere his interest was. Mr. Gaynor might well be said to be the leader in obtaining needed scientific help for the growers from the state and U. S. experts, the State Experiment Station being located on the Gaynor Co.'s bog. Mr. Gaynor was also a most earnest student of co-operation and was the prime mover in establishing a co-operative telephone and electric light plant in Grand Rapids. For years he had studied on a plan to use co-operation in the selling of the cranberry, and was the prime mover in forming the Wisconsin Cranberry Sales Co., which led to similar companies in the east and then finally the American Cranberry Exchange, which is well known as a model organization. The writer acknowledges with pleasure a great debt to Mr. Gaynor for much good advice and help in many ways and especially in regard to problems in connection with the work of the association, and he feels that he but views the thought of the association as a whole.

J. W. FITCH, Sec'y.

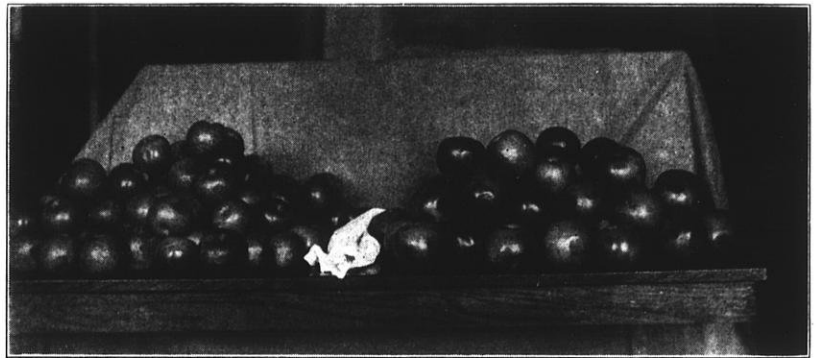
Misinformation

(Continued from page 153)

several incidents that have come under my personal observation. A few years ago I received a letter from a gentleman in the southern part of the state. Here it is: "Dear Sir:—In your official position you may know of a number of good investments in cheap land in your county. I have heard of your cheap land. I want to get some of it to hold for speculation. I am willing to leave it to your judgment. I enclose fifty dollars and want to ask you to buy me some of that cheap land. Any kind of land will suit me. I can well afford to lose the fifty dollars if the price of land does not advance, but I want to take this plunge just for fun. Yours truly." It happened that the county had at that time several forties of tax title land. Some of the most God-forsaken land that ever laid out of doors. I decided that I would not return his money and would not only give him what he wanted, but would buy something that he would hold until the end of time. I made him a deed of forty acres. This amounted to a little over forty dollars. In order to compensate me and to sear over my conscience a little I wrote him that I would keep the rest of the money as my commission for making the selection. The rest of the story will follow a little later. I received at least one dozen letters from friends of that one man, asking me to get some cheap land for them, but I always returned the money. I did not have the heart to take the money. I wanted to make an example of that man. I wanted to let him know that while sometimes one could buy an odd forty of cheap land in our county, I

wanted to be sure that he kept it, that his children kept it and that his grandchildren kept it. Unless of course they were willing to give it away. We were busy advertising for settlers, men who had ambition, who were willing to work, who wanted to farm. We did not want speculators. The rest of the story is more interesting and made the situation worse. One day a man walked into my office, and after informing me that he was a Methodist minister, fished out of his pocket a deed to this par-

and the entire transaction cost him just fifty cents over a hundred dollars. He had two hundred acres of land and he had paid fifty cents per acre. Less than six months from that date the preacher had sold a hundred acres of the land for five hundred dollars and a month after that sold the other hundred acres for seven hundred fifty dollars. The land is as poor as it was when I sold the first forty. It will lie there until the crack of doom and no one will ever attempt to farm it. And yet that speculator will



The W. B. P. sorted. The apples in the pile on the left were all wormy or scabby or both.

ticular forty of land. Here I thought was a peculiar situation. I would have to tell him the truth, I would have to explain that I was trying to teach a cheap speculator that ours was a farming country and if he wanted cheap land he certainly got it. But the clergyman informed me that not only was he satisfied with his purchase, although he had not seen the land, but that he wanted to buy some more in that same neighborhood. I refused to sell him the land although we had four more forties, until he had looked it over. In two or three days he came back, he told me he had seen it, although I had my doubts about that, and he wanted the other four forties. I made out deeds,

sell it to other speculators, and the gullible one, perhaps the present owner, will curse the country. It is needless to say that the cheap lands are gone from the market. The story is

(Continued on page 165)

The Aster Disease

A writer in a horticultural journal (name lost) claims that the "yellows" of asters is caused by an insect which attacks the plants in the early stages and further claims to have saved his plants by spraying them frequently during the growing season with a nicotine solution.

As the editor recalls the article the first spray was applied when the plants were set in the field. This is surely worth a trial.

Wisconsin or Florida

About the time Manager Kern of Bayfield was starting for California and the Hood Wink Belt, Irving Smith of Ashland, left home with his wife for Florida on a honeymoon trip. Irving was married about 15 or 12 or 20 years ago but has been so busy since raising vegetables etc., that he entirely forgot, until now, to take a honeymoon trip. On his way, Irving made some notes as follows:

"We left home Jan. 4th, under a clouded sky and in a drizzling rain. Our line of travel was via Chicago to Washington, D. C., New York, and down the Atlantic Coast Line to Avon Park, in South Central Florida, over to Havana, Cuba, and home by the more direct route, arriving Feb. 27th.

During the whole trip we did not see frost or snow until we got back to Chicago on the return trip. The children were writing of it being very cold, and 38 below zero, etc. So you see we were quite out of the region of the Wisconsin winter.

The peach trees were in bloom when we arrived at Avon Park, and the orange and grape fruit trees were loaded with their bright burden of beautiful and delicious fruit. Every morning Mrs. Smith and Mrs. Butler, (our Avon Park friends) would go out and pick hands full of beautiful roses. Whole trees and buildings were covered with a vine called Bignonia, which was simply a mass of gorgeous orange colored blossoms resembling the climbing honeysuckle of Wisconsin in form, only much larger. Thus we were in the midst of the southern winter. The deciduous trees were bare of leaves, though budding as we left.

The question which came to us over and over was, "Well, do you want to move to Florida to live?" Let us see a little of what we could do to make a living, and how the people live.

Of course we could not get anything like an exhaustive view of conditions in the few week's stay, but we kept our eyes open for the facts.

The cost of food stuff seems to be about the same as here, with only the variation that some northern goods cost more, and southern goods cost less. Fresh vegetables retail at five cents per bunch for all that class of goods, same as in Wis. To grow these vegetables, and in fact anything, requires frequent applications of commercial fertilizer. The soil, if we may call bare sand by such a name, will produce very little without the fertilizer. The native grass is the worst kind of wire grass and grows in bunches; in quantity, about ten per cent of what we get on a wire grass marsh. Cattle roam over these wild "pasture" areas and most of them get enough to keep from starving. Some do not.

But, you say, the oranges. Yes, the oranges are there and like the jockey's horse, many of them will stay there. There are two packing houses in Avon Park and both were more or less idle because it was impossible to sell oranges and grape fruit for enough to pay the grower anything for his fruit. Many car loads of fruit will not be shipped at all this winter. We could have loaded cars just as fast as the packing houses could turn them out, at 50 cents per box to the grower. In spite of this fact, trainloads of fruit are going to waste.

The market is not by any means always in this condition. The earlier shipments brought 75

cents to \$1.50 per box to the grower, and we were told that the late pick would likely bring about the same figure. Yet, with these conditions prevailing the orange and grape fruit business seems to be booming in a certain way. We went by auto from Avon Park to Sebring, about ten miles south, and I am sure we saw not less than five thousand acres of land either just set or getting ready to set with trees. There seems to be very little else thought of in the line of planting. In one field of 40 to 60 acres they were planting watermelons between the trees.

Sand prices are not very high. Not especially different from prices here.

The orange section of Florida seems to be very nearly a one crop proposition. When that crop brings a good price, every thing is lovely; but when a poor year comes, like the present, the people are poor.

Here in Wisconsin, if one line fails some other line will be good and so maintain a fair average production and income.

There is a move on foot to get a cannery to use up the surplus fruit of the Avon Park district. If this materializes it will help out considerably, as there are now large quantities of good canning fruit wasted.

Now as regards the personal comforts of the orange district, there are many fine points. As a winter resort it is very fine in many ways. We wore thin summer underwear. The days were quite warm and the nights cool. A fire place is very acceptable for evening use. The lack of grass, as we think of it, makes one rather lonesome at first. Perhaps, though, it is just as well as it is, for the wire grass is full of

FOR THE TABLE

Receipts for June

By BLANCHARD HARPER

Strawberries

Ambrosia, or Moonshine

To one pint of strawberries thoroughly mashed add one pint of sugar. Beat the whites of 4 eggs until stiff, then stir them into the sugar and strawberries and serve immediately. If the strawberries are very juicy, it may be well to drain off some of the juice. Raspberries and peaches are also delicious served in this way.

Pudding Sauce

One-half cup of butter creamed with 1 cup of sugar. Beat the white of an egg stiff and mash one cup of ripe strawberries. Stir the berries into the beaten white and then add the mixture to the creamed butter and sugar. Delicious with plain pudding or blanc manges. B. H.

To Can Strawberries

Strawberries canned in this way exhale a most delicious perfume when opened even after three years, and they keep the flavor of the fresh berry better than in any other way.

Wash berries before hulling. Hull carefully directly into a clean jar—adding sugar or not as desired. One-half cup to each quart of berries is a good proportion. If sugar is added shake the jar slightly so as to coat each berry. When all are prepared with rubbers and covers (covers laid on but not fastened), put the jars on rack in boiler, put in water two or three inches deep, cover boiler and boil ten minutes from the time the water

boils. Then quickly open one jar at a time and fill from another, replacing jars at once in boiler—usually one jar fills the shrinkage in two. Screw down covers tight and boil for five minutes more. Remove from boiler, tighten covers again and store in a dark cool place.

It is immaterial if sugar does not entirely dissolve in cooking—it dissolves later.



Five samples, all in a row, from the W. B. P. Moral: Don't do it.

Short Cake

Strawberry or rhubarb, peaches, raspberries, currants and many other fruits.

When I was a child I never ate a short cake made of a sweetened dough, and I imagine that the original short cakes were merely an extra rich biscuit dough.

A good recipe is:

- 1½ cups of flour
- ½ cup of cornstarch
- 4 t. baking powder
- ½ t. salt
- ⅓ cup butter

Milk to make a *soft* dough

Sift all dry ingredients together 3 times, and cut the butter into them with a knife, do not rub with a spoon, when as fine as cornmeal. Gradually add milk, a little at a time, to make a soft dough. Turn on board, cut in half, but *do not roll out*. Place each portion on a greased tin and gently *pat* into shape, a fourth of an inch thick. Bake to a golden brown in a moderate oven.

If a richer cake is desired sugar and one egg may be added.

The filling should be warm but not hot when spread, berries mashed in the sugar or sugar spread on cake and berries cut up to spread over. The top may be covered only with berries and sugar, or an additional layer of whipped cream and whole berries laid over. B. H.

German Preserved Strawberries

Marion Harland

“By this name are known to sellers and buyers the singularly delicious strawberries put up in narrow, tall jars.

Prepare the berries as for preserving in the usual way, and put them with an equal number of pounds of sugar in the kettle. Bring to a gentle boil, keep this up for one minute and transfer the fruit with a broad perforated skimmer to several large platters. Cover with panes of glass and set in the full heat of the sun. Leave them there all day; take in at sunset and put out again on the morrow. Meanwhile, boil down the syrup until rich and clear, set away, and on the third day put it back on the fire. When hot add the berries, boil for five minutes and seal in small jars”.

Imported berries preserved in this way cost about one dollar the

(Continued on page 161)

Do Muskmelons and Cucumbers Mix?

They do not. Three questions are asked with unfailling regularity every year of those who ought to know, even if they don't know viz. How shall I kill the ants on my peonies? Do muskmelons and cucumbers mix, and why don't my plum tree bear, it blossoms every year? To the first we answer, don't; to the second, no; to the last, I don't know.

Anyway there is no doubt about the cucumber and melon question. Plant them side by side or even in the same hill and there will be no mixing. It is also true that squash and cucumbers will not cross, nor pumpkins and squash.

This will be vigorously denied by many but we await proof. "Why you could *taste* and *smell* cucumber in the muskmelon." Certainly if your imagination was in good working order, not otherwise. The cause for the poor quality of any muskmelons growing near cucumbers must be sought elsewhere than in crossing. It is easy enough to raise muskmelons but mighty hard to raise *good* muskmelons. Soil, climate, variety and disease are limiting factors, not crossing.

Wisconsin or Florida

(Continued from page 158)

very small brown "grass ticks" about the size of a microbe and about as annoying as the itch; hence one does not seek the grass, but the bare sand.

The street trees are mostly the continuous growing varieties, and so grow much more rapidly—by the year—than ours. If, however, you consider the actual growing time, our trees grow about as rapidly as in the south.

After all, the condition of the common people looms up in the mind, as a pretty poor and forlorn outlook.

It is very pleasant to go there during the winter, but to live there, I fear we would sigh for some of the beauties and comforts of our Wisconsin homes.

Of course, with plenty of money, one can be comfortable most anywhere. But to the young man of Wisconsin who wants a home—buy it in Wisconsin and be content. You have as good a place as the sun shines on.

Irving C. Smith.

German Preserved Strawberries

(Continued from page 159)

pint or rather seventy-five cents for a small bottle.

Note.—I use a *white* enamelled dripping pan, and cover it with a sheet of plate glass just fitting the top. Be sure to use small jars and not parafine covered glass for this as the syrup is so fluid that the parafine shifts and lets in air, and the preserve is so rich one can only eat a teaspoonful at a time. Serve it over ice cream, or put a teaspoonful on a charlotte russe, or on a piece of stale cake and pour cream plain or whipped over it, or even a custard.

B. H.

Green Peas

Peas should be picked if possible not more than one hour before cooking, because the sugar changes rapidly to starch after gathering and they thus lose their delicacy and flavor. Most people over cook peas. If *not* freshly gathered, and are bought in market, shell and throw in cold water for a few minutes, drain and put into boiling water, boil slowly twenty minutes in an

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As You Like Them

We manufacture the Ewald Patent Folding Berry Boxes of wood veneer that give satisfaction. Berry box and crate material in the K. D. in carload lots our specialty. We constantly carry in stock 16 quart crates all made up ready for use, either for strawberries or blueberries. No order too small or too large for us to handle. We can ship the folding boxes and crates in K. D. from Milwaukee. Promptness is essential in handling fruit, and we aim to do our part well. A large discount for early orders. A postal brings our price list.

Cumberland Fruit Package Co.

Dept. D, Cumberland Wis.

McKAY NURSERY COMPANY

PARDEEVILLE - WISCONSIN

Offer a complete line of

Hardy Nursery Stock for Spring 1915

Have 60,000 No. 1 Apple Trees including such varieties as

**Wealthy, McMahon,
Snow Dudley,
McIntosh**

Write today. We want to send you catalogue and quote on your list of wants.

Nurseries at Waterloo, Wis.

uncovered kettle. Be careful not to cook after they become tender. Too rapid boiling hardens the peas and removes the shell; too slow boiling makes them pale and watersoaked. When peas are young and freshly gathered, steaming is preferable to boiling, but as they mature boiling is better.

B. H.

Strawberry Marmalade

Marion Harland

For each pound of capped and weighed berries allow three-quarters of a pound of white sugar. Put the berries into the kettle and bring to a steady boil. Keep it up for half an hour, then dip out all the juice that will come away without squeezing the fruit and add the sugar to the berries left in the kettle. Do not be afraid of getting the marmalade too dry. The sugar will make sirup enough. Cook for half an hour after the contents of the kettle begin to boil again and turn, boiling hot, into tumblers or jars, sealing at once.

Make jelly of the surplus juice you have dipped out.

Both manufactures may be carried on at the same time.

Spinach

Prepare a sufficient quantity of cooked spinach. Drain and press until dry, season with butter, salt and pepper and mould into little flat cakes. Prepare a round slice of buttered toast for each portion, on it place a little cake of spinach and put in the oven to warm while poaching an egg, in a muffin ring or egg poacher, to place on each of the prepared portions. Garrish with olives and pimientos. This makes a pretty dish for a luncheon or supper.

B. H.

To Can Peas

If water is hard, boil it the day before to cool and let brine settle out and to sterilize it.

Shell freshly picked peas directly into clean jars, cover with boiled water, add salt, put on rubber and cover, but do not

seal. Place on rack in boiler, fill to three or more inches with cold water, bring to boil 45 minutes for pints, one hour for quarts, seal at once and set aside. Twenty four hours later loosen cover, and boil again, seal again, and repeat the third day.

Do not use old or previously used Mason jar covers. Get new covers and the new glass ones if your dealer has them. B. H.

Canned Rhubarb

Mrs. Hewitt of the University of Wisconsin Home Economics Faculty speaks highly of the rhubarb canned in cold water.

Gather rhubarb fresh, wash and cut in small pieces. Put the rhubarb in glass jars and fill with clean pure cold water *to overflowing*. Put on caps and seal. When wanted for use, open and cook as usual, using the water and juice in the can. It is excellent for pies and sauce.

B. H.

Currant Aphis

A member complains that the leaves of his currant bushes are curled and twisted with reddish blisters on the upper sides, and asks the cause and remedy.

The trouble is caused by the currant aphis and there is little that can be done after the leaves curl.

The remedy is to spray early in the season with a nicotine solution or kerosene emulsion. When we are after aphids remember to hit the bug with the spray. Covering the foliage with the spray liquid might prove annoying to the bug but not fatal.

The Hawks Nursery Company

are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

Wauwatosa, Wisconsin

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Plants for the Garden"**

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**Everbearing Strawberries, Apple
Trees, Plum Trees, Small
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Kellogg Trees means "Blue Ribbon
Quality"

61st year

KELLOGG'S NURSERY

Box 77 Janesville, Wisconsin

Door County cherries will be a full crop this year.

BEEKEEPER'S COLUMN

By L. V. FRANCE

Wisconsin College of Agriculture

Beekeepers' Column

Some of the notes in last month's beekeepers' column apply very well to the early part of June. Read them again.

Throughout most of Wisconsin clover bloom beings to yield nectary in the second or third week of June. Be fully prepared for the honey harvest with plenty of clean combs, hive bodies, supers, full sheets of foundation and sections prepared with foundation.

Watch the bees closely, prevent swarming and the making of unfinished sections by adding the comb honey supers just at the proper time.

Do not leave comb honey on the hives after it is fully capped. It will become "travel-stained," darkened in color, making it less salable. Always aim to produce the highest grade sections in attractive condition.

A maximum yield of extracted honey can be secured by giving the colonies plenty of room at the beginning of the honey flow. At that time remove all but two combs of brood from the lower story of the hive replacing those removed with full sheets of foundation or combs. Shake all of the bees with the queen into this hive body. Put on a queen excluder and add a second hive body containing the brood combs from below. In five or six days examine the brood in the second hive body, destroying all queen cells and add a third hive body of combs of full sheets of foundation, if needed. Fully drawn combs are preferable, since a

greater yield of honey will be obtained.

Honey extracted from capped-over combs will be of high grade and will not cause any trouble by souring or fermenting.

In the production of comb honey fine success is secured by forcing the bees to raise as much brood as possible before honey flow begins. At that time prepare the brood chamber of the lower hive body the same as for extracted honey, leaving off the queen excluder. Place above this first hive body one or two supers of sections as may be needed. Watch closely for the proper time to add or remove supers.

The honey from asters and certain other fall flowers common in many localities of the state is undesirable as food for wintering bees. Beekeepers in these localities reserve five or six combs of clover or basswood honey as winter food for the swarms, removing the poorer fall grades. This practice insures the best possible results in wintering so far as good food for the bees is concerned. This problem of proper wintering is of far greater importance than most beekeepers realize, and during the months of June and July the above recommended practice can be carried out.

If there are any indications of disease or diseased conditions in your colonies, you should communicate with the State Apiary Inspector, Mr. N. E. France at Platteville, Wis., describing the conditions carefully and send a sample of the affected comb in a tight tin or wooden box securely packed. The State Inspector will be glad to offer helpful suggestions for eliminating the trouble which can be most easily controlled at this season.

Ant Hills

Ants on the lawn or elsewhere may be destroyed by liberal use of carbon bi-sulfide, but if the colonies are large it must be used freely. One or two ounces will have very little effect on a large "hill" or colony—use a pint at least. For a "hill" two feet or more across punch six or more holes, with a sharp stick, each about four inches deep and pour an ounce or more of the liquid in each hole and cover with a wet blanket.

Here is the record of two very large hills which in 1913 destroyed a garden. In the spring of 1914 a huge bonfire was built over the hills burning for several hours. The ants came back next day. Two gallons of kerosene poured over the hills and ignited apparently caused the beasts no inconvenience. Then a pint of carbon bi-sulfide was applied to each hill as recommended above. No ants have been seen since.

Use carbon bi-sulfide but use *enough*. Incidentally this dope catches afire quite easily; gasoline is slow in comparison. Refrain from lighting matches while the can is uncorked.

Ants on Peonies

Ants do not injure peony buds. Every one who is supposed to know anything about bugs or flowers is called on to make this statement at least three thousand times, or less, every year. The ants are there for a purpose but their errand is to gather either the gummy juice of sap adhering to the peony flower or else to "milk" any aphids or plant lice that may be present.

Apples promise a big crop in Wisconsin this year. Barnyard apples will be cheap as usual.

*Increase the Yield and Quality of your Fruit
by Spraying your Orchard with*

**LIME SULPHUR AND
ARSENATE OF LEAD**

CREAM CITY CHEMICAL WORKS

Manufacturers of

INSECTICIDES AND FUNGICIDES

Spray Calendar sent
on Application.

**774 Kinnickinnic Ave.
MILWAUKEE, WIS.**

Quality First

It pays to spray. Spraying is a form of insurance. Spraying is now recognized as an essential in orchard practice. The farm orchard should be sprayed as well as the commercial orchard. The farmer is entitled to good fruit, therefore: Let us s(pray).

Bulletins without number have been published on spraying and huge volumes have been written on bugs, diseases and methods for their control. These are all valuable but principally for the professional grower. The amateur, the man with a dozen trees, is less concerned with the intimate life history of a bug or the family relations of a fungous disease than with the practical ways and means to control the common orchard pests. He wants to know *how* and wants to

know at once; he is content to learn *why* later.

The ignorance of the average small grower of all spraying operations is vast, profound, deep.

This lack of knowledge however need be no cause for embarrassment nor humiliation, for spraying is not, except as to potatoes, farm practice. The only man who should be ashamed is the one who will not ask questions, who will not try to learn, who will not make the effort. For him there is no hope. For the one who will try there is much hope. **ASK QUESTIONS.**

“Leaky” Trees

Large shade trees especially elms frequently “leak.” Sap runs down the trunk continuously which frequently ferments and forms a breeding

place for saprophytes. A member from Grant County writes: “I have a large elm tree in my yard and I notice where one of the main branches joins the trunk the sap seems to be running from it, at least the trunk is always wet. I examined it closely and find hundreds of small white worms very thin and about one half inch in length.” Please advise me what to do for it.”

Beyond doubt high winds have split the branch from the trunk, although the injury may not be noticeable, and every time the branch sways in the wind it opens the wound sufficient to cause the sap to exude. The worms in this case probably find the decaying sap a fit breeding place but cause no direct injury to the tree. The remedy: Fasten the injured branch firmly to the trunk by means of bolts. One or more

three-eight or one-half inch holes may be bored entirely through the branch and trunk without serious injury to the tree.

Misinformation

(Continued from page 157)

also told that one of the officials of our county received a letter from a resident of Milwaukee, some years ago, something like this. "My son is very much interested in wild animals. He is particularly anxious to get a bear cub. Will you kindly look around there and get one for him. I do not suppose the expense will amount to much. Kindly attend to this at once and greatly oblige, Yours truly." Queer ideas they have of the northern country. We might answer something like this. We are engaged in farming, in this country we are too busy looking after our apple, cherry and plum orchards, to think about bear cubs, we are building creameries and cheese factories, we are buying full blooded cattle, thoroughbred horses, registered hogs, sheep and other stock, we are setting out strawberries, and shipping nearly one hundred carloads of these berries each season, we are conducting some of the most successful farmers' co-operative stores and warehouses found anywhere in the country, and have not the time to attend to your foolish wants. When you sit down to your dinner tomorrow, you will find that the table before you was manufactured in this county, as were also the chairs you sit upon, the timber grown here. Your butter, your milk, your cheese, your apples, your strawberries, or your blackberries or your cherries, your beef, or your mutton, or your pork, or your chicken,

(Continued on page 166)

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

by extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

Duchess, Dudley, Wealthy, McIntosh, Snow and Northwestern Greenings

Try a few of the new sorts if you wish. We have them. Our **Fruit Trees, Small Fruit Plants, Vines and Ornamental Stocks** were never better. Our prices are as low as any where *quality of stock* is considered.

Our Landscape Department will draw your plans and do your planting. Write today for our new catalog and your list of needs for next spring.

Salesmen Wanted

The Coe, Converse & Edwards Co.
Fort Atkinson, Wisconsin



ARSENATE OF LEAD

*Paste or Powdered
Lime Sulphur Solution*

Recognized as standard in principal fruit growing sections of the country. Convenient source of supply for Wisconsin fruit growers. *Sulphate of nicotine 40% and free nicotine 40%.* For further information write.

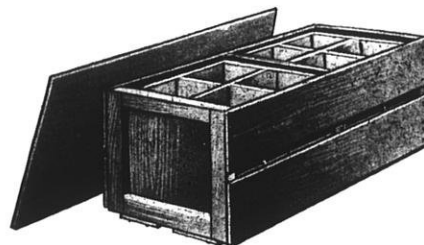
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Silver or White Birch Berry Boxes



Manufacturers of Berry Crates in the K. D. or made up and fitted with our celebrated "Silver or White Birch" Berry boxes, Climax Grape and Peach Baskets, Till or Repacking Baskets, Tree Protectors, Plant Boxes, Bushel and Half-Bushel Crates, Beekeepers' Supplies, Box Shooks and Specialties.

Write for Circular and Price List

SHEBOYGAN FRUIT BOX CO.,

Sheboygan, Wisconsin

Lilac

The sturdy old fashioned lilacs, both the common and the Persian have been a joy of ideally luxuriant beauty this spring. But alas! the new French lilacs in my garden have one by one given up the fight. I bought three about eight years ago, one soon died, one died this year, and the third is infested with borer. Give me old friends tried and true, who are able to stand the winter's storms and yet renew their glorious beauty with the spring.

B. H.

Misinformation

(Continued from page 165)

or your turkey, or your duck, were undoubtedly produced in this county. Bayfield county is on the map, but not a place to catch bear cubs; take your gun, and load it with a Du Pont shell, which means that the powder and the shell were manufactured in Bayfield county, go out upon the streets of your beautiful town of Milwaukee and you have just as much chance of meeting a bear cub face to face as you have in this county.

Another letter I received from on Iowa Co. lady indicated another state of mind: "Dear Sir:—My brother who recently died here, we have just discovered, owned some land in your county. I would like to dispose of this and have thought I would come north and see the land for myself. Will you kindly advise me whether or not it will be necessary for me to bring a fur coat with me. My health is not very good and I must take all needed precaution in a cold climate. Yours truly, Miss Blank." This was in July.

I wrote her something like this: Dear Miss Blank:—Re-

plying to your favor will say that you should by all means bring with you, when you come north, your heavy fur coat, and cap and mittens. In fact, it would be well for you to bring your trunk, packed with heavy flannels, overshoes, sweaters, and other clothing necessary to keep you comfortable.

It happened that the day I wrote the letter the thermometer registered exactly 100 degrees above zero on the court house steps. I have never heard from her. Of course I might have been real courteous and helpful and written her something like this: Dear Miss Blank:—You need have no anxiety about the weather away up north. It is warm, probably today, just as warm as as it is in your southern Wisconsin home. While our summer weather does not begin quite as early as in southern Wisconsin, it stays with us later, and our summers are just as long as yours. In fact according to the records in the Government weather office, we have killing frosts later in the fall than you do three hundred miles farther south and we are less likely to have killing frost as late in the spring as you have. Our winters are not cold, they are only cold to those who have never been here during the winter. By all means leave your heavy clothing at home." Fool ideas however do not strike one as they should and we are apt to become exasperated, when we get a fool letter like the one mentioned.

I have had other letters, one from a Minneapolis man: "Dear Sir:—I bought eighty acres of land from a real estate man in this city. I am anxious to get it cleared up and into crops. I was told when I bought the land that this entire eighty could be cleared for one hundred dollars.

I have figured, however, that it would probably cost twice that amount to get it cleared, as one cannot always depend on these land men. Will you kindly send me the name or names of someone who could do this work for me? The description of the land is as follows: * * *. Yours truly."

That letter was received just a day or two after I had awarded a contract to one of my neighbors for stumping and breaking eight acres, the contract price to be \$350.00. I knew the land he described, because I had a hunting camp near it. The second growth poplar was as thick as hair on a dog, and averaged six inches through, the stumps were also thick. But I secured a bid from a man who is engaged in that kind of work. The bid was \$4,400.00, or at the rate of \$55.00 per acre. I considered it a reasonable price, because I have had considerable clearing done on our own farm. I wrote him. Dear Sir:—I enclose herewith a bid for clearing your land. This is a good proposition and you should accept it at once. You say that the land man told you you could get this land cleared for \$100.00. There were two men involved in that transaction. A thief who took the money under false pretenses, and a fool who handed him the money. One should be punished, and the other should have a guardian appointed to look after him. Yours truly.

I do not intend to be humorous, this is a very serious business. I only want to bring home to you the conditions we have to contend with. I have noticed that the land was sold to some other sucker, at an advance in price. The first man had paid three times as much as the land was worth to begin with.

When you southern Wisconsin people see the catchy advertising, the wonderful claims, the beautiful pictures, you may be excused, when you say that the north must be a wonderful country. You say wonderful without making any further investigation: You say it is wonderful, much as the preacher did.

The story is told of how a clergyman happened to tell his son one Saturday afternoon what lesson he would read in church next morning. The boy got hold of his father's Bible, found the lesson's place and glued together the connecting pages.

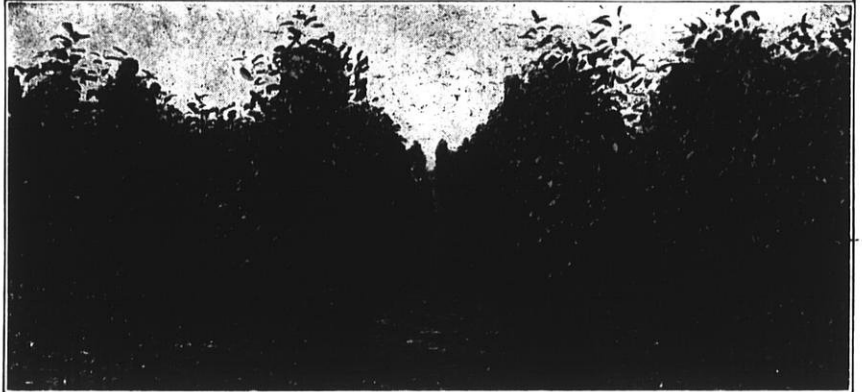
In consequence the clergyman read to his flock the following day that "when Noah was 120 years old he took unto himself a wife, who was"—here he turned the page—"140 cubits long, 40 cubits wide, built of gopher wood and covered with pitch in and out."

After reading the passage, the clergyman read it again to verify it. Then, pushing back his spectacles, he looked gravely at the congregation and said:

"My friends, this is the first time I ever read that in the Bible, but I accept it as evidence of the assertion that we are fearfully and wonderfully made."

It is a wonderful country. A country of wonderful possibilities. But we do not want dishonest land men. We do not want speculators. We do not want anyone to tell anything about this country that is not truthful. We want first a thorough investigation, then if after the truth is known you are ambitious to make a home for yourself in the best county in the state, if you are willing to work, and work hard, then come to Bayfield County.

THE GREAT NORTHERN NURSERY



We have over one hundred thousand No. 1 Apple trees just like the ones shown above. Write us for prices before you place your order for trees. We are the largest growers of apple trees in the state, we are confident we have the stock to suit you and will be pleased to figure on your wants.

THE GREAT NORTHERN NURSERY CO.,
25 Linden St., Baraboo, Wis.

Personal and confidential: The photo that I am enclosing shows my faithful dog Jack in the background. This is a trade-mark no other nurseryman can use for he never would be found in any other nursery. I don't believe a better block of apple trees was ever grown in Wisconsin. Don't they look it?—M. F. F.

WISCONSIN HORTICULTURE

A WISCONSIN MAGAZINE published by the WISCONSIN STATE HORTICULTURAL SOCIETY containing each month articles on fruit, flower and vegetable growing written by WISCONSIN growers for WISCONSIN conditions.

WISCONSIN HORTICULTURE is not published for the purpose of making money but exclusively for the benefit of members of the STATE HORTICULTURAL SOCIETY.

It is better,—for WISCONSIN people, than any other horticultural paper published. It tells the best varieties to plant in WISCONSIN, the best methods of cultivation for WISCONSIN. It's a paper for the home gardener and fruit grower as well as for the big grower.

"WE ANSWER QUESTIONS" is the slogan of the Society. Every question answered, first by personal letter and then in the paper.

Every dollar received for fees (subscriptions) and advertising is put into the paper.

Honest dealers advertise in WISCONSIN HORTICULTURE and only that kind. The other kind cannot buy space.

The price, 50 cents, includes membership in the STATE HORTICULTURAL SOCIETY.

A dollar bill pays for two years.

Send Fifty Cents, coin, money order or check to Frederic Crane, Secretary, Madison, Wis., and get a receipt for Annual Membership and Subscription to WISCONSIN HORTICULTURE for one full year.

A DOLLAR BILL PAYS FOR TWO YEARS

A Hint

How often is the exclamation heard, "Oh I will do something for you some time in return for this," or "It is awfully kind of you to give these to me; I wish I could do something in return," and there the matter ends. When my house was new and my prospective garden nothing but a bare field, some dear kind friends brought me trees, wild crab and plum, and catalpa, iris, peaeony, cam panulae, pyrethrum, Shasta daisy, Oriental poppy, Iceland poppy, Spiraea filipendula, pansies, narcissus, dahlias, asparagus and other things. In reply to my repeated exclamations as above, one of the family said: "The best way to prove your appreciation will be to help others to start a perennial bed." Hence every year it is my delight to divide my roots or some of them and give them to friends or neighbors to help start a new garden. What I give is never missed from my garden, and to all who thank me I reply that they are only aiding me to pay an old debt. Try it and find how pleasant it is! B. H.

Nothing Whatever

By Irving Smith

When we were in Florida this past winter we stopped at Sanford, the great celery growing district. We saw them harvesting celery which was bringing a gross return of about \$1,000.00 per acre.

That sounds pretty well. But yesterday I figured up on our little block of a little over one-third of an acre, and the last year's crop, which was somewhat of a disappointment brought us \$961.31 per acre. We expect to do considerable better this year. We don't have to pay \$150.00

FRUIT PACKAGES

of all kinds, Farm Crates, Storage Bushels, etc.

For Special Prices Write To

STOLLE LUMBER & VENEER CO.

Tripoli, Wisconsin

per acre for commercial fertilizer either. And this is right here in our local market.

What's the matter with Wisconsin?

Irving C. Smith.

A Strawberry Manual

We have many inquiries for a book on strawberry growing and so, no doubt had Prof. J. G. Moore. Anyhow he has written a bulletin entitled, Strawberry Culture in Wisconsin and it is a good one. A copy may be had for the asking. Drop a card to Prof. Moore or to the Agr. Exp. Station, Madison asking for bulletin No. 248 or by title.

Pickle Spot

This disease first appears on the young cucumber fruits as small gray, slightly sunken spots. These unite into irregular patches, particularly towards the flower end. As the spots age they darken to greenish black and a gummy exudate often appears. Upon the leaves where injury is more rare than upon the fruit, the spots are at first watery, and later the leaf wilts and rots. The disease progresses so fast that a plant may be practically destroyed in a few days. Some experiments have been made with

spraying for the control of this disease, but the results obtained do not justify the recommendation of this means of control.

White Pickle

This trouble affects both the plant and fruits of the cucumber. It causes the leaves to turn yellow and ultimately to wilt and die. The fruits become light in color and more or less deformed and show light and dark blotches of green which often stand out as warts. It attacks both young and mature fruits. This is a new disease, the cause of which is still unknown, and the Department is unable at the present time to offer any suggestions for its control. It requires further investigation, and is receiving attention at the Cornell University Experiment Station and the Michigan Experiment Station.

We answer questions.

The home orchard is valuable, if cared for properly.

The Tartarian Honeysuckles have been rioted in bloom this cold spring.

Send a sample copy of the Wisconsin Horticulture to your neighbor. May be had for the asking.

WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, July, 1915

Number 11

A Wild Flower Garden

Dr. J. W. Peroutky, Merrill

Why not have the perennial delights of a wild flower garden at home, particularly of the early woody varieties?

Hopeless, or too difficult, you say? Not at all. Just provide the required environment as to soil, moisture, and shade according to the habitat of the flowers you wish to have.

As to how to proceed I can do no better than describe my own flower garden—12 feet, 7 inches by 5 feet, 4 inches.

Being on the west side of the woodshed with a tall tree about a rod south and the house southwest, it gets a varying succession of shade and sunshine with full sun only in late afternoon.

The soil was prepared by removing the sod and top soil and another foot of the subsoil which is sand and which, consequently, affords excellent drainage. This was replaced by

a mixture of the sod and top soil with decaying wood,—chips and bark from the woodshed—

Then as plants are brought from trips into the country, here and there, I make it a point to



A native Wisconsin Fern, *Aspidium spinulosum*. The Dells, Kilbourn
Photo by Blanchard Harper

lawn clippings, but especially leaves and leaf mould from odd corners, in all to create a moister retaining woods soil.

bring as much earth as possible with each plant thus continually adding to the required

(Continued on page 177)

A Plain and Convincing Tale

F. Kern, Bayfield

I think I have given you the records on the citrus fruit industry in the last chapter and all there is left is scenery and peaches and apples.

I left San Francisco on the 23rd of March in disgust, so you see I spent but very little time at the exposition, but I spent more money than that. I had a reservation at one of the best hotels but a lot of other fellows also had reservations at the same hotel and my reservation was entered after the hotel was filled so I had to hunt any kind of place and finally after canvassing the city I did find a room about the size of a bath room that they said I might occupy at a rate of \$3.00 per, and then I resolved to see the Exposition in one day. I saw all of it except the Horticultural exhibit and was at the entrance of that building when they locked the door at 6 o'clock and I felt as though luck was against me. The Wisconsin state building was the neatest and nicest, in my judgment, of all states that had finished, and I felt proud of our state building, but the grounds had not been planted and I presume we will show Wisconsin Horticulture in the forefront later.

I traveled over the Southern Pacific through Sacramento Valley all day and just at sunset passed through the great almond district at Arbuckle, Cal. Could not get any reliable information on growing almonds nor as to the profits but from what I did get there is not much money in that enterprise when you consider that it takes ten years to get the first crop and on that high priced land the interest on

the investment eats up the profit on a number of crops before you get the crops so I concluded I did not care to go into that business. I stopped at Red Bluff that night so as to cross the mountains in daylight and the scenery was well worth the hotel bill.

The first really interesting place we struck was the little city of Ashland at the foot of the mountains and at the head of the Rouge River Valley that we hear so much about. After riding all day through snow from a foot to possibly ten feet deep (I did not measure it) to drop into such a pretty little place as Ashland (Ore.) was delightful. A beautiful fertile valley (if irrigated) where you can grow more apples (they say) and better apples than any other section of the U. S., but I had just left a place where they could grow some apples and I did not believe all they told me. I bought four different varieties, their best, and ate them on the train and, Oh, how I wished I could have a good (Wisconsin) apple to take the thoughts of having eaten those apples. (There was no taste in my mouth).

Medford, twelve miles from Ashland, is the metropolis of Southern Oregon and is in the heart of the Rouge River Valley and is a very pretty little city with the finest country surrounding it that I saw in the state.

I stopped at Roseberg, at the lower end of this valley, over night and next morning went to Eugene, one of the noted small fruit districts of Oregon where I had a pleasant talk with Mr. Holt, the manager of a very large Association.

They had paid out to growers for the crop of 1914 over \$244,000 and if they had received the

prices we get in Wisconsin that sum would have been more than doubled. They have an immense canning plant, a prune dryer, a vinegar factory and they make all the spray material for the growers, ready to use, and the growers seem to be well pleased with their organization and are supporting it to a man and it is one of the strong organizations of the northwest. Land values, did you say? I was not interested though I think if one really wanted to buy he could pick up fruit land within ten miles at less than a thousand dollars an acre.

On the train between Eugene and Portland I made the acquaintance of a man who was interested in the real estate business in that valley and he inquired why it was that no more Wisconsin people came out there to go into the fruit business and I told him about the Secretary of our Horticultural Society and that I thought that his timely advice had stopped the tide of emigration from Wisconsin to Oregon. He said "No. I'll tell you why. Every sucker that came out here in the last ten years or longer, we have skinned them, and they've quit coming." I felt very friendly toward this stranger for I believed him to be honest.

I never saw such an inspiring sight as the Hood River Apple district is to one interested in fruit growing. Thousands and thousands of acres seemingly all in one farm, the boundary of which appeared to be Old Mt. Hood, as white as a frosted cake and this melting snow supplying water for irrigation, never failing, and the summit, always covered with snow which tempers the atmosphere perfectly for growing apples and they grow most beautiful apples.

CRANBERRY NOTES

By J. W. FITCH

Cranberries in Wisconsin

(Continued from June issue)

Previous to 1893 Wisconsin had always produced more wild cranberries than any other state in the Union, in 1890 a crop of almost 100,000 barrels being gathered.

The severe fires of 1893-4-5, permanently destroyed 95 per cent of the wild vines, and now only 5 per cent of the Wisconsin crop is gathered from wild vines. The remainder are grown on planted vines.

Previous to these fires, a few growers had begun to plant and after the fires the attention of the growers who continued in the business and the discussions of the society were concentrated mainly on the best methods for planting and caring for the made bogs.

This period 1893-4-5 was a most trying one and had it not been for our society and the help from the Stat. Chap. 363, laws of Wisconsin, the industry would surely have been entirely abandoned.

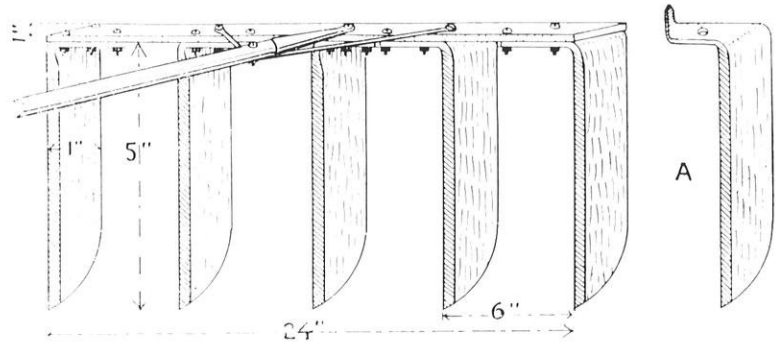
Cranberry Prospects

The present outlook seems considerable better than last year, most growers in the Cranmoor district looking for increases. Frost has hit in some places and the cold weather is holding back the growth, but in spite of this the crop looks very well especially where the vines were not held under water more than necessary during the frosty nights. News from the East speaks of heavy losses from frost, temperatures as low as 16° being reported and many bogs are

reported as not enough left to pay for harvesting. The damage was chiefly in Cape Cod, New Jersey faring much better.

of the marsh land in northern Wisconsin. Comparing the climate with that of the more southern bogs, Mrs. James Rogers, wife of Superintendent Rogers says:

"As to climate and atmosphere here, I think it's no colder here



PRUNING RAKE FOR CRANBERRY VINES

Used for getting rid of excess growth of vines where they become long and tangled. Such vines are a hindrance to crop production and harvesting. A shows form of knife that can be attached to a wooden rake to make a light pruner.
—From Wisconsin Bulletin 219 Agr. Exp. Sta.

The Cranberry Lake and Development Company of Phillips, Wis., of which Mr. Albert D. Hedler of Minneapolis, Minn. is secretary, is developing a cranberry bog in northern Wisconsin on an extensive scale. Twenty-six acres have been planted to vines this year requiring about twenty tons of vines of the Searles Jumbo variety from the well known bog of Andrew Searles of Cranmoor. The company will put in many more acres and expects eventually to have one of the largest bogs in the world. The success of this bog will mean much to the future development

than there; at any rate we find that the berries ripen even earlier here. I suppose on account of days being a little longer. We found ice here in the morning of May 27th but our young shoots on the sand were not injured."

(While cranberry prospects appear to be excellent this month the crop of cranberry notes seems to be short. Let's hope business picks up next month.—Editor.)

Bulletins Worth Reading

U. S. Department of Agriculture:

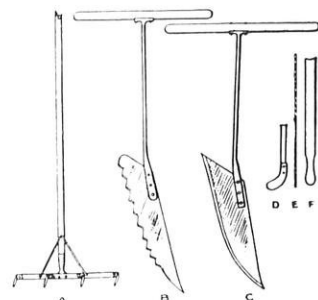
No. 663—Drug Plants Under Cultivation.

No. 494—Lawn soils and Lawns.

No. 668—The Squash Vine Borer.

No. 670—Field Mice as Farm and Orchard Pests.

Wisconsin Experiment Station, Annual Report of the Director. All may be had free.



Some tools used in bog construction

A Plain and Convincing Tale

(Continued from page 170)

They have one of the largest cold storages at Hood River in the northwest. They can store half a million boxes.

The growers hadn't received any settlement on their 1914 crop when I was there in March so they did not know what they were getting but felt sure it would not be very much.

In 1913 the cost per box to the grower for storage and handling thru the Association was 27 cents but they had no figures on the 1914 expense when I was there.

The orchards appeared to be receiving the very best attention. They are compelled to spray and prune and cultivate and cover crop and to a stranger everything would appear to be most prosperous, but when I talked with the growers themselves I did not find a man who would not be willing to lose money on his investment and get out. Men growing apples for the purpose of selling land naturally had big stories to tell but they did not agree in every instance with those of the real farmer.

Men have bought these lands at from \$250 to \$1,000 per acre depending on the location. Wild land, where one stump would scare a Wisconsin Horticulturist to death to think of getting rid of it, land where they cut from one to forty thousand feet of timber to the acre, where it costs from \$200 to \$400 per acre to clear it, then it all has to be graded and leveled in order to irrigate, then in seven or eight years you will get a crop of apples, after you have used up all your capital in buying the land, clearing, planting and caring for your orchard, then when you get a crop pay the Association 27 cents per box for hand-

ling, wait a whole year for your money and then find that your apples (if they happen to be of the variety that is popular that season) will sell for or have sold at anywhere from 65 cents to \$1.00 per box. Alluring, isn't it? While I was in Hood River the Association loaded thirteen cars of Newton Pippins to go to Portland and sold them at about 85 cents f. o. b. Hood River and these were sold in this way: The Association had a representative in Portland that canvassed the trade and got all the retailers to sell these apples at not over \$1.25 per box to the consumer. Then they went to the jobber and asked him to handle these cars at not to exceed ten cents per box and to sell them to the retailer at \$1.00 per box, that brought the price to the Association down to 90 cents per box delivered at Portland and the freight was six cents per box so the grower got a gross price of 84 cents for his apples. Take out 27 cents Association expense, 15 cents for your box, figure all your other expense of pruning, spraying, picking, and \$6 an acre for irrigating and you have the net profit from growing Newton Pippins.

After growing various kinds of good apples there for a number of years the Association decided that all poor keeping varieties should be grubbed out and that Newton Pippins were the only apples to grow. It took eight years to get a crop and then for the first time it dawned upon them that the Newton Pippin was a green apple and would not sell well, hence all this effort on the thirteen cars sold in Portland, and they were the most perfect apples I have ever seen. But just think of the situation from the growers' standpoint.

These are absolute facts given in this instance.

Apples are by no means the only fruit grown around Hood River. Strawberries are grown extensively. They expect 100,000 crates this season. The price received for strawberries there varies more than on apples, some years being good and other seasons very low.

Last season was the best season they ever had, the average price being, I think, 96 cents per crate, while the previous year they received much less average.

I think I figured up \$19,000 dollars paid in salaries to manager, sales manager, supt. of cold storage, etc., before they get down to the labor paid for handling the fruit and doing the actual work.

Compare this record with the most extravagant you can imagine in Wisconsin.

(To be continued in August)

News Notes From Richland Co.

The frosts did not damage the apple crop in Richland county. Early strawberries in the valleys were badly damaged but not injured on the ridges. The apple crop promises to be as large as two years ago. The only damage so far is by some pest that eats small holes in the apples.

Raspberries unprotected were damaged to some extent by winter killing but promise a fair crop. Blackberries do not appear to be damaged and have bloomed profusely. Spraying has been retarded by almost daily rains. Blooming period was nearly two weeks early this year and some Duchess now (June 8th) as large as walnuts. Grapes set profusely and the Carrie gooseberry groaning with its load.

G. H. Townsend.

A Blue Flower for the Border

Mrs. Wm. Habermann

There are few fall flowers for the hardy perennial border which furnish just the lovely shade of blue now so popular, the blue which is seen in the ageratum and in some varieties of delphinium. There is a most charming variety of salvia or meadow-sage growing wild, quite commonly in our section of the state, which I have utilized successfully as a hardy perennial, in my garden.

The blossom differs from the scarlet salvia in color, only, being a delightful, porcelain blue.

The plant is found growing along the upland edges of marshes or on wooded river-banks, and although it seems naturally to prefer a moist situation, it does well in the garden, blooming profusely during August and September. This pretty addition to the garden may be transplanted while in bloom if a generous amount of soil is taken with the roots, the flowers removed, and the plant kept well watered and shaded for a few days.

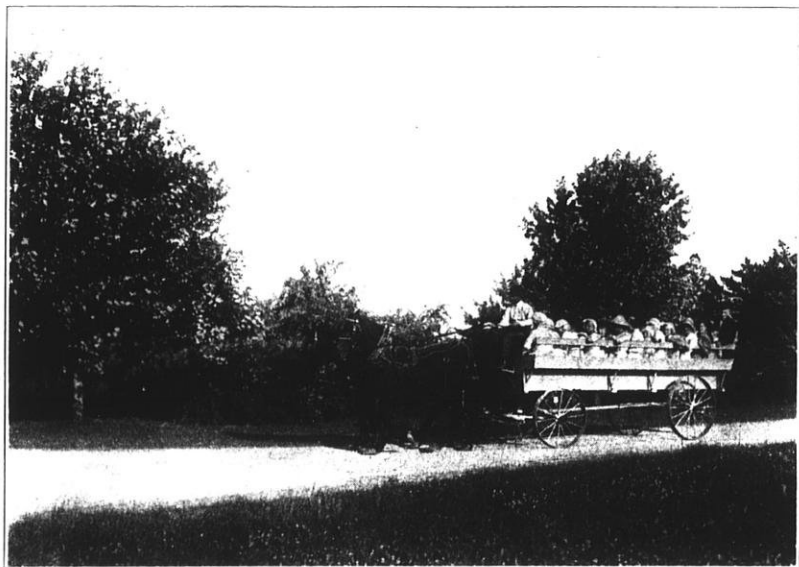
Over Production

At the 60th Annual Meeting of the Western New York Horticultural Society, January 1915, Prof. L. H. Bailey discussed the problem of Over-production of Fruit. A part of this address, of peculiar interest to Wisconsin fruit growers, follows:

"So far as the available statistics show, while there is an expansion of apple planting in North America, there is little or nothing to indicate an era of over-production. There was an apparent actual decrease in the apple product in the United States between the Census years

1900 and 1910: there is indication of only a slight excess of planting over the probable or expected decline of the older plantations. Population seems to be increasing at least as rapidly as the expected production of the new apple plantings. It is probable that the situation with other fruits is not greatly different from that with the

Herein, it seems to me, lies the hope of the future,—in the development of better commercial methods, particularly of methods of disposal. The general apple situation may not be such as greatly to encourage extensive new plantings, and yet I find a general feeling that there is sale for many more apples than we now market profitably,



A load of cherry pickers, Sturgeon Bay, 1911

Photo by Potter

apple. It is easy to make a forecast, and therefore it is dangerous. However, we have certain bases of judgment.

All observers apparently agree that the commercial apple plantings are increasing more rapidly than the general farm orchard. This will make for better market quality of fruit, more careful regulation of the business, and a more uniform and dependable serving of the trade. This is probably true, also, of other fruits than apples. It is an indication that the fruit business is passing out of its casual and aimless stage as an incident to general farming and is coming to be a commercial business in its own right.

if only the ways can be found to place them readily where they are wanted.

More Than One Crop

The experienced market gardener plans on two crops each season from most of his land and three and even four crops from some of it. This can also be done in the home garden. Early radishes, lettuce, spinach and peas can be followed by late peas, beans, beets, corn, celery and cucumbers.

Read the story of a wild flower garden, seven by twelve feet and get ready for one of your own.

Snap the Sparrow

C. R. Hinkle

The Bluebirds were calling loudly for help. I had heard the call before, when the pesky English Sparrows took forcible possession of the bungalow I had built for Bluebird tenants only, whereupon a new house was put up for Mr. and Mrs. Bluebird and, after several visits of inspection, they had concluded to take it and were moving in. And now they were appealing again, urgently, insistently, and evidently directly to me. What was the trouble? A brazen English Sparrow visitor on their front porch, uninvited and unwelcome! Something had to be done.

It was no use to try that rifle again, for the Sparrow is too wise to stay within gunshot and anyway that gun appeared to have a crooked barrel when used by me. So I borrowed my neighbor's sparrow trap,—one of those big wire affairs, costing \$5 and highly recommended (by the maker). Result; two sparrows caught in three days and the Bluebirds still coming to me at intervals and telling their troubles. Something more had to be done.

I prepared for action and placed on the ground near the fancy trap half a dozen ordinary snap-spring mouse traps, of the "three for a nickel" variety, and I must confess that I looked furtively around to see if anyone was watching this seemingly foolish act. Result; forty sparrows in a couple of weeks, while the scientific trap was catching eight; the place free from the sparrow nuisance, except an occasional scout from another colony who never returns to tell his tale, and peace and harmony in the Bluebird home, where little Mrs. Bluebird is sitting

and is being attentively fed by her devoted and industrious husband on "June-bug grubs" and worms from my Gladiolus Garden.

Not another bird goes near the mouse traps but I have had one woodpecker and one blue jay in the wire cage. Moreover one mouse and one gopher have been added to the list of victims of the mouse traps.

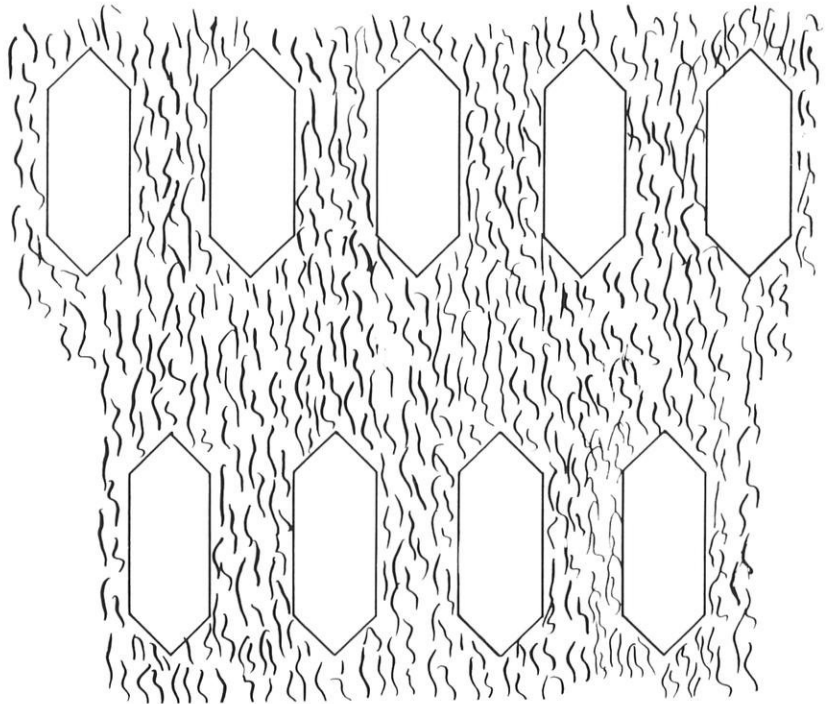
The U. S. Department of Agriculture issues Bulletin No. 493 entitled, "The English Sparrow as a Pest." In this is said: "The English Sparrow among birds, like the rat among mammals, is cunning, destructive and filthy. The annual loss caused by these birds throughout the country is very great. It reduces the number of some of our most useful and attractive native birds, as bluebirds, house wrens,

purple martins, tree swallows, cliff swallows and barn swallows, by destroying their eggs and young and by usurping nesting places. It attacks other familiar species, as the robin, wren, red-eyed vireo, cat bird and mocking bird, causing them to desert parks and shady streets of towns. Unlike our native birds whose place it usurps, it has no song, but is noisy and vituperative."

The sparrow is a scavenger; he comes around three times a day, after meals, evidently to pick up crumbs. Bait the trap with a little pinch of bread,—let him try to pick it up, Snap! He gets it!

You "Swat the Fly," why not "Snap the Sparrow?"

One hundred thousand barrels of apples will be barreled and shipped out of the state this year.



This cut shows a method of girdling to force bloom. A tree that is making a vigorous growth and is old enough can be forced to bear by girdling. About June 1st start 6 to 10 inches from ground remove a piece of bark $\frac{3}{4}$ to 1 inch wide $1\frac{1}{2}$ to 2 inches long bringing cut to a point at top and bottom, skip 1 to 2 inches and remove another piece of bark and so on around the tree, go 2 to 3 inches higher do the same, making upper cuts between lower. This will check the return flow of sap and force the growth of fruit buds.

S. L. Brown, Madison, Wis.

(Early July will not be too late this year to try girdling—Editor)

The "June Drop"

A. L. Hatch

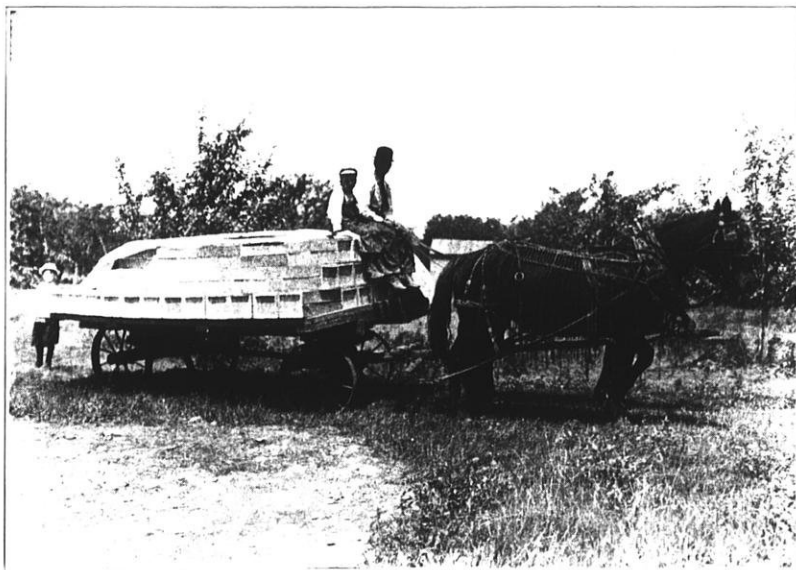
At this time of the year the question is frequently asked why so much young fruit falls from bearing orchard trees. After an abundant bloom there may be a crop failure on account of the little apples, cherries or plums becoming yellow and sickly and dropping from the trees while still small. Why does this occur and what is the remedy?

The formation of bloom is always from the surplus of material that the tree has stored in its twigs and branches the previous season. Trees bloom before there is leafage or new growth to add anything to this stored material. Consequently the formation of flowers is an exhaustive process—that is a use of the material in the tree before there is any chance to restore it by new growth. If this material is small in amount and is widely diffused through a very abundant bloom it is evident that all the embryo fruits may not receive a sufficient amount of this material to insure vitality for development. There is also a tendency for growth to enlarge along certain lines of vigor and this often absorbs much of the material at the expense of other parts, especially of the lateral or side branches. It is evident that the fruit carried to maturity is that which is most vigorous and can appropriate to itself sufficient material for that purpose.

If a tree is not in good condition the previous fall from any cause it may possess too little stored material to carry its bloom to fruitfulness the next season. These considerations suggest the following remedies for premature dropping of fruit—1st, conditions to secure the full

vigor and vitality of the tree, especially that of maturity to perfect and enlarge the supply of stored surplus material. 2nd, limiting the bloom that the material may be concentrated upon the strongest parts of the tree. This is accomplished by pruning away the weaker bearing

tween the rows. I dug the grass away from the trees or gave them a heavy mulch of barnyard manure each year. The land was a rich black clay with very hard yellow clay subsoil but with slope enough to drain well, and there are certainly nice trees but a half dozen of them were left



A load of cherries, Sturgeon Bay, 1914

Photo by Potter

branches and by thinning the young fruits.

An Experience With Wealthy

Reul Humphrey, Stanley

Four years ago I planted a bunch of Wealthy apple trees. They were very nice ones from the — nursery. The rabbits bothered some by going on top of the snow drifts. The tar paper kept the mice away and when the snow was normal the rabbits could not reach the branches. I cut the tops off square the last two winters. This widened out the tops a good deal. I plowed the land twice a year turning the soil to the trees in the fall and away from them in the spring. This left a ditch to run off the water early in spring and gave me a chance to raise crops be-

out of the cultivation and that half dozen are a great deal smaller and not so thrifty as the rest. They don't look as though they belong to the same planting. Some of the trees have a few apples on now.

Beware of the large luscious looking berry after a rainy season. Jams, jellies, etc., made from ripe overgrown berries, are flat and insipid. How I lament my error when I look at twenty half pint glasses supposedly of strawberry jam, but as flat and insipid and tasteless as a plum sugar syrup. The berries were large, soft and mushy, and very ripe—they canned well but they did not make nice jam. B. H.

A million bushels of apples in Wisconsin this year.

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
 12 N. Carroll St.
 Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
 Secretary W. S. H. S., Madison, Wis.

Entered as second-class matter May 31, 1912, at the postoffice at Madison, Wisconsin, under the Act of March 3, 1879.
 Advertising rates made known on application.

Wisconsin State Horticultural Society

Membership fee fifty cents, which includes twenty-five cents subscription price of *Wisconsin Horticulture*. Remit fifty cents to Frederic Cranefield, Editor, Madison, Wis.

Remit by Postal or Express Money Order. A dollar bill may be sent safely if wrapped or attached to a card, and pays for two years. Personal checks accepted.

Postage stamps not accepted.

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Laws

Chapter 225, Laws of 1915, repeals the section of the statutes which provides that: "Every manufacturer of apple barrels or cranberry barrels shall stamp or brand his name with the letters 'W. S.' on the outside in plain and conspicuous letters, at least two inches in height," etc.

No information is at hand to show where the idea of this repeal originated but the repeal may be a good idea. For in-

stance, a loud wail came out of Kansas City last year that Wisconsin (Door Co.) apples of very inferior quality were being displayed and sold, "a disgrace to the state," when in fact the only evidence offered was the maker's name and the brand "W. S." on the barrel. Mr. Cheeseman, barrel manufacturer, of Sturgeon Bay evidently sold some barrels to a Michigan grower.

The balance of Chap. 225 legalizes the use of containers of two-quart, three-quart, etc., size. The old law provided only for the quart, pint and half pint.

Announcement

The Summer Meeting will be held in Madison, August 25th and 26th. It is fourteen years since we last met in Madison for the Summer Meeting. In August, 1901, the society held a two day session at the Capitol with a program of fourteen papers and reports; nearly as much as some of our recent Winter Meetings. Dr. Loope presided, F. C. Edwards vice-president, J. L. Herbst secretary, and L. G. Kellogg treasurer.

The forenoon of the second day was spent at the horticultural grounds of the University. After lunch a boat ride around Mendota, landing at the home of S. H. Marshall where supper was served on the lawn.

Well, that is just about what will happen next August only the landing place will probably be at the opposite end of the lake and will be reached by auto after a 20 or 30 mile ride through Madison's parks and drives. It will then be arranged to have the moon rise about 8.30 and to have steamers on hand for a ride around the lake landing at the U. W. pier.

This plan may be modified by whatever changes are made but certainly add to the pleasure of the occasion.

The Madison Horticultural Society will have charge of ceremonies on the second day which fact is an assurance that everything will be done right. This Madison society is not addicted to making a big noise but moves along quietly and efficiently.

This will be an opportunity for our members to satisfy themselves that Madison really has a summer season. Sometimes during the winter meetings when the weather was a little chilly Bayfield and Sturgeon Bay people suffered from cold and doubted that Madison ever thawed out. Come and see about it.

This surely will not be a fruit men's meeting. There isn't an orchard worth seeing within ten miles of Madison.

Earned a Dollar

The "Earn a Dollar" offer in the June number brought out several very interesting and valuable short articles and some not so interesting. The offer was not conditional on acceptance but a flat offer and notice is hereby given to the contributors that payment will be made in due time as agreed.

The offer was made unconditional, purposely, intentionally, not to say maliciously, and the outcome as shown by the correspondence and contributions presents problems that can be grasped only by a psychologist. It's too deep for the editor, I give it up.

Dr. Peroutky mentioned only a very few of the wild flowers available for a garden. Any of the native plants may be successfully transplanted at any time.

The Summer Meeting

No fruit papers will be allowed on the program. We will talk about parks, drives, flowers and decorative plants and then we will go out and see them.

On the first day, beginning either at ten a. m. or two p. m., there will be papers and discussions on the subjects above mentioned and probably an address on park-making. If the weather permits there will be an evening lecture in the Senate Chamber of the Capitol. If it is too hot to stay indoors we can go down to Brittingham park and jump in the lake.

Thursday will be Fresh Air Day. The program will be given in full in August Horticulture. In the meantime begin planning for your summer vacation, Aug. 25th and 26th.

Madison is one of the most beautiful cities in the world, come and be convinced of the truth of this.

No Exhibits

There will be no flower or fruit show at the summer meeting. As the sessions last but one day it was considered scarcely worth while to set up an exhibit.

Apples are not ripe in August, roses and early summer flowers are gone and the best of the later flowers have not arrived.

The main purpose of the summer meeting is to give members an opportunity to observe the various phases of horticulture in the state.

A part of the meeting can well be devoted to papers and discussions but the weather in August is usually too hot to sit around and argue as we do at the winter meeting. It will be the aim to make that part of the program as light as possible.

So too with exhibits, we barely get our exhibits at the summer meeting set up when we begin to tear down. We will therefore omit the exhibits this year.

A Wild Flower Garden

(Continued from page 169)

soil, the leaf mould of the woods. In fall the garden is given a natural covering of leaves which remains each year of course.

The result? That season "When dreams come true and everything is fresh and lusty" is ushered in by a wealth of the delicate hepaticas to be followed in rapid succession by bloodroots and dutchman's breeches, spring beauties and yellow and white adder's tongues, crinkle roots and violets—common purple, Canada white and yellow—wood anemones and bishop's caps, wild ginger and star flowers, bell-worts and trilliums, jack-in-the-pulpits and solomon's seals, wild geranium and phlox, clintonias and dwarf cornets—a fair list but not all.

There where was sunk that old leaky pail are shooting up lusty stalks of the showy lady's slippers brought a hundred miles from another part of the state. We are looking forth with eager anticipation for its stately bloom, and have designs to improve its new home, to which it has seemingly taken so kindly, by sinking a half barrel with drain holes part way up the sides and a miniature fountain beside it.

In a dryer corner are the harebell, man-of-the-earth, columbine, vervain, and the autumn asters which close the year with the Canada violets that bloomed in such profusion in spring as their competitor.

Intermingled with all, for foliage, are a clump of meadow rue and a generous number of various

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ferns. Among them are the flowering fern and the dainty maidenhair beside which grows the delicately fragrant twin flower with trailing arbutus near at hand.

Much can be crowded into a small space in a wild flower garden. It never tires. It is the chief point of interest during that lull when the Dutch bulbs have passed their glory and the early garden perennials and biennials have not as yet come into their own. And it adds zest and a perennial interest in country rambles and explorations.

Our latest addition is the showy or spring orchis. In digging it up a little lizard was found in the leaves beside it. Much to the discomfiture of the ladies I insisted on taking it along with the assurance that the keynote to success with a wild flower garden is to provide the natural environment, and that it was clear the lizard, in this case, was a part of that environment.

Controlling the Squash-Vine Borer

The squash-vine borer lives largely upon the squash and pumpkin, but is also found on the muskmelon, cucumber and gourd. Its presence is not usually detected at first, but can later be located by the coarse, yellowish excrement which the borers force from their burrows in the stems, and which accumulates on the ground beneath. Later the leaves suddenly wilt and die down, and unless the borers are cut out of the vines, the chances are great that the vines will be killed. The presence of the borers in the stems causes a natural rotting at the affected points, and the stems become severed from the root.

The larvae are known to bore through the stems from the roots to the base of the leaves, and through the leaf stalks, according to the new U. S. Department of Agriculture Farmers' Bulletin No. 668, "The Squash-Vine Borer." In fact, the young larvae may be found in the larger veins of the leaves and frequently in the vegetables themselves. The Hubbard squash, marrow cyslins and other late varieties of squash often suffer the greatest injury from the squash-vine borer, and the devastations are likely to be more acutely felt in small gardens than in large commercial fields.

Not infrequently crops are lost year after year where the ground is successively planted to pumpkins, squashes or other crops which the borers infest. The insect is exceedingly difficult to control in that ordinary insecticides and repellents are practically useless. Since the insect passes the winter in the fields which it has ravaged, the ground

should not be replanted the succeeding year to crops on which the borer lives.

Early Squashes Planted as Traps

Good results have often been obtained by planting as a trap crop, as early as possible, a few summer squashes such as crook-neck and early cyslins, between the rows of the main crop of late varieties. The summer squashes attract the borers in such numbers as to leave a much smaller number to deal with upon the late or main crop. As soon as the early crop is harvested, or earlier, if the ground is needed for the main crop, the summer squashes and vines are raked up and burned to destroy all larvae which they may harbor. The same treatment is followed after gathering the late varieties. This method has proved profitable where used in New Jersey, and should produce good results further north.

The borer may be greatly reduced in numbers by lightly harrowing the infested fields in the fall, so as to bring the cocoons to the surface where they will be exposed to the elements, and then plowing in the spring to a uniform depth of at least 6 inches, so that the pupae will be prevented from working their way to the surface.

Another cultural method which tends to restrict the damage is to cover a small part of the vines, after they have attained some length, with earth, so that secondary roots will be sent out to support the plants in case the main root is injured by the borer. Still another aid is keeping the plants in good condition, free from other insects and disease, and well nourished. When the vines are so badly infested as to be incapable of bearing fruit,

they usually die at once, and should be promptly taken off the field and burned. As soon as the crop is matured, the old vines should be destroyed.

Cut the Pest out of the Vines

The old-time remedy of cutting the borers out of the vines, although laborious, is useful. It is about the only method open for employment after the borers have entered the vines. As several individuals often infest a single vine, it is best to cut longitudinally so as not to sever the vine from the root stalk. The wound will heal more quickly if covered with moist soil. The location of the borer in the vine may be readily detected by the accumulation of yellow "frass" or excrement at the point where it is working.

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Trees, Plum Trees, Small
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Quality"**

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You need a vacation, take it
Aug. 25th and 26th.

BEEKEEPER'S COLUMN

By L. V. FRANCE

Wisconsin College of Agriculture

July Notes

The winter and spring losses of bees in Wisconsin are largely due to an insufficient amount of proper food. Clover and basswood honey are considered the best for winter food.

At the close of the clover or basswood honey flow *do not rob the bees* of their rightful share of winter food. Set aside a sufficient quantity of the clover or basswood honey for the feeding of each colony through the winter and spring.

Frequently the late summer and fall flowers yield nectar insufficient in quantity or poor in quality for proper wintering of bees. One cannot expect bees to winter well on poor grades of fall honey any more than one could expect cows to winter well on a poor grade of food.

Beware of American foul brood in July, for in this month throughout most of Wisconsin the clover and basswood honey flows terminate. At the close of such honey flows bees are very anxious and exceptionally eager to rob honey from any source. Colonies weakened by foul brood, or diseased colonies in old poorly fitting hives, will be robbed by healthy bees, thus spreading the disease broadcast. Remember that this is a dangerous season for the spreading of the foul brood diseases.

If there is foul brood in your locality place shade boards on the hives to prevent swarming as much as possible, and close down the entrances so that each colony can properly protect itself from robbing.

Foul brood in your locality

should spur you to immediate action. Call the State Apiary Inspector and demand that he assist in cleaning up the foul brood in your vicinity.

Mr. N. E. France of Platteville, has been the State Apiary Inspector for seventeen years and has worked untiringly with the small funds at his disposal to aid beekeepers in eliminating foul brood diseases. Mr. France was the first official apiary inspector in the United States. His work has shown results, in that foul brood is less widely distributed in this state than any of the adjoining states. Coöperate with him.

Appeals, information and warnings are constantly being brought to the attention of beekeepers with respect to foul brood control and eradication and better methods for management of honey protection. Do not disregard this assistance, but rather coöperate with the Inspector and State Beekeepers' Association and you will profit in the long run.

As soon as the main rush of the honey season is over, while there are still many drones in the hives, each colony should be carefully examined for the presence of a good fertile queen.

Colonies that do not have a good fertile queen at the close of the clover or basswood honey flow should be requeened or given a comb of eggs and young larvae from the best colony in the beeyard so that a queen can be raised immediately.

Beekeeping in Wisconsin is receiving more recognition than ever before and you can aid this interesting pursuit with your hearty coöperation.

Beekeeping as an industry is not to be despised in any way, but is as highly scientific as any other branch of agriculture.

The Hawks Nursery Company

are in a position to furnish high grade Nursery Stock of all kinds and varieties suitable to Wisconsin and other northern districts.

Will be glad to figure on your wants either in large or small quantities.

Wauwatosa, Wisconsin

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and Climax Baskets

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Cumberland Fruit Package Co.

Dept. D, Cumberland Wis.

Returns from beekeeping are not always dependable year after year, but in the long run proper and intelligent management of bees yields a larger return for the time spent upon it than most other agricultural lines.

Owls the Foes of Field Mice

Meadow mice destroy grass, cut down grain, clover and alfalfa, eat grain left standing in shocks, injure flowers and vegetables—in short, do harm in a hundred ways. In the lower Humboldt Valley in Nevada in 1907-1908, they totally ruined 18,000 acres of alfalfa. Trees and shrubbery are also attacked and large nurseries of young apple trees have been known to have been almost wholly destroyed by the mice cutting through the bark at the surface of the ground.

When the mice are in small numbers, trapping is probably the easiest method of getting rid of them. From 12 to 20 traps to an acre may often be set with advantage in the mouse runs. Where the mice are abundant or the areas large, poisoning is a quicker means of extermination. The following formula is recommended in Farmers' Bulletin 670 of the U. S. Department of Agriculture.

Dry grain formula—Mix thoroughly 1 ounce powdered strychnine (alkaloid), 1 ounce powdered bicarbonate of soda, and $\frac{1}{8}$ ounce (or less) of saccharine. Put the mixture in a tin pepper box and sift it gradually over 50 pounds of crushed wheat or 40 pounds of crushed oats in a metal tub, mixing the grain constantly so that the poison will be evenly distributed. *Wet grain formula*—Dissolve 1 ounce of strychnia sulphate in 2 quarts of boiling water. Dissolve 2 tablespoonfuls of laundry starch in $\frac{1}{2}$ pint of cold water. Add the starch to the strychnine solution and boil for a few minutes until the starch is clear. A little saccharine may be added if desired, but it is not essential. Pour the hot starch over 1

bushel of oats in a metal tub and stir thoroughly. Let the grain stand overnight to absorb the poison.

The poisoned grain prepared by either of the above formulas is to be distributed over the infested area, not more than a teaspoonful at a place, care being taken to put it in mouse runs and at the entrances of burrows. Small drain tiles, $1\frac{1}{2}$ inches in diameter have sometimes been used to advantage to hold poisoned grain, but old tin cans with the edges bent nearly together will serve the same purpose.

Field mice may also be driven away by thorough cultivation of fields and the elimination of fence rows. In the case of trees, clean tillage and the removal from the neighborhood of weeds and grass will prove an effective precaution.

Finally, the farmer should remember that there are many animals, birds and snakes around the farm which do little or no harm and are most useful in keeping down the numbers of field mice. Among these owls deserve special notice. Mice are the chief diet both of the short-eared and the barn owl. The common screech owl destroys English sparrows as well as mice. It stays close to orchards and farm buildings and is, therefore, a useful assistant.

Cooking Beans

Parboil string beans before canning them. The flavor will be more delicate. Cook them only until they can be pierced with a fork without splitting; then blanch them by running cold water until cold, before packing in jars. Sterilize by fractional boiling as for peas, etc.

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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This is the dull season for membership and we will make a summer offer

Your membership extended one full year from date of expiration if you will secure one new member. Send fifty cents and name of one new member and get a year's extension free.

Good only until Aug. 1st

F. CRANFIELD

Madison, Wis.

Secretary

The Oriental Poppy

E. A. Smith, Minn.

This dazzling poppy is easily a princess among other field flowers at the season of its bloom in early June. It can be seen further than any other field flower because of its bright, blazing red color and its size which averages about eight inches in diameter. It will also stand close inspection. It grows to a height of about fourteen inches. One plant has been known to have sixty blossoms upon it. A blossom will remain in good condition in the field three to five days, depending upon the care and the weather. When cut it should immediately be placed in water. It will then keep for two days. But the difficulty comes in the transplanting. If in the early spring the crown is apt to rot; if in the late fall it will not carry through the winter. The root runs deep and has but few laterals. If it is cut it will bleed badly, the substance being milky and resembling the milk weed when broken. When the plant is small in the spring and has begun to make a vigorous growth, if taken up carefully with a ball of earth it can be readily transplanted and will probably bloom the first year. It is easily grown from seed and while the seed type varies it will be good enough. Plants grown from the seed will bloom the second year and need not be transplanted. The Oriental Poppy is worth all the care and trouble expended upon it, for it is most satisfactory in results.

Take geranium cuttings now, for plants which are wanted for winter blooming in the house. Young plants started in June do best.

It Is None Too Early

to make your plans and place your order for your next spring's planting of fruit trees.

Do Not Be Misled

by extravagant and glowing descriptions of varieties that have been only partially tried in this latitude. For money-makers and your main planting stick to

Duchess, Dudley, Wealthy, McIntosh, Snow and Northwestern Greenings

Try a few of the new sorts if you wish. We have them. Our **Fruit Trees, Small Fruit Plants, Vines and Ornamental Stocks** were never better. Our prices are as low as any where *quality of stock* is considered.

Our Landscape Department will draw your plans and do your planting. Write today for our new catalog and your list of needs for next spring.

Salesmen Wanted

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Recognized as standard in principal fruit growing sections of the country. Convenient source of supply for Wisconsin fruit growers. *Sulphate of nicotine 40% and free nicotine 40%*. For further information write.

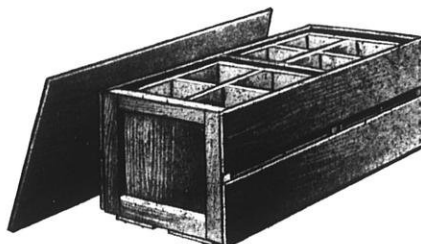
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Manufacturers of Berry Crates in the K. D. or made up and filled with our celebrated "Silver or White Birch" Berry boxes, Climax Grape and Peach Baskets, Till or Repacking Baskets, Tree Protectors, Plant Boxes, Bushel and Half-Bushel Crates, Beekeepers' Supplies, Box Shooks and Specialties.

Write for Circular and Price List

SHEBOYGAN FRUIT BOX CO.,

Sheboygan, Wisconsin

Feed the Soil, It Feeds Us

Lewis Ostenson.

A few years ago I spent two summers in Racine working for a rich man who kept a large garden. In this garden he raised fruit, flowers and vegetables. I followed orders and pulled up all grasses and weeds by their roots, placing them in a basket and carried them to the rubbish pile which was at regular intervals hauled away. Bone meal in a small way was used on part of the garden besides about two tons of stable manure each year which also covered only a small part of the garden. The greater part of the garden received no fertilizer of any kind, and every grass and weed was removed, root and top, so there was no vegetable matter incorporated with the soil. The soil was sticky and close and inactive. Peaches and plums were grown as well as grapes and blackberries, and sweet corn and potatoes and squash. The potatoes each year were almost a total failure. The carrots and other vegetables were small and few. The flowers which were numerous and received a great deal of care, also suffered in this clammy soil.

Now the question is, What would be the most practical way to get life and tone into this soil? It is evident that the weeds should be buried in it rather than be removed body and limb. The owner did not care to lose the use of his garden a year as he would if he seeded it to clover. But I would suggest that he buy clover hay, spread it quite heavily on the ground in the fall, let it lie a month or two, then plow it down. Applying a heavy coating of clover late in the fall for two or three years would undoubtedly put the soil into good, active condition, and allow the owner

the use of his garden each year without interruption.

In the spring I would only top work the soil and allow the clover to lie a whole year before it was plowed up. This process repeated would bring humus into the soil and keep it in good condition.

(Well composted stable manure will solve the problem.—Editor.)

The Strawberry Bed

The treatment of the fruiting bed is often a puzzle to the amateur. There are at least three courses open: Do nothing, in which case the bed will yield a fair crop next year but will be a tangle of plants, grass and weeds. This is the lazy man's plan.

Plow the bed and plant buckwheat, turnips, late celery or some catch crop. This necessitates having a new bed coming on which is a very good idea in any case.

A third plan and one which pretty nearly exhausts the possibilities is to renovate the bed. Immediately after the last berries are picked mow the plants close to the ground, burn everything burnable, cut down the matted rows, which are now two feet wide, to six or eight inches. This can be done with a plow but if the bed is not large and time is not an important element a very much more satisfactory job can be done with spade and hoe. The plants in the remaining strip should also be thinned to six inches.

If a new strip is taken each year for renewal the bed may be kept indefinitely but except in very small gardens it is scarcely worth while. Many commercial growers fruit beds only one year and seldom more than two years.

Salzer's Seeds

are particular seeds for particular planters. Send for Market Gardener's Book.

JOHN A. SALZER SEED CO.
401 South 8th St., La Crosse, Wis.

Drug Plants not Unusually Profitable

Although a large amount of money is spent annually for the importations of crude drugs, and the extermination of a number of valuable native drug plants is threatened, government specialists do not believe that the growing of drug plants offers any unusual opportunities for profit to the American farmer. Drug plants are subject to the same diseases and risks as other crops and, in addition, knowledge of the best methods of cultivation and handling is less general than in the case of other and better known crops. In issuing a new bulletin, Farmers' Bulletin 663, "Drug Plants Under Cultivation," the Department of Agriculture, therefore, warns farmers that in order to have the cultivation of drug plants financially successful in this country, the introduction of improved methods and the extensive use of machinery is probably necessary. Under these circumstances the natural tendency will be to increase the production in the interest of economy. The demand for many drug plants, however, is so limited that if large areas are brought under cultivation there is considerable danger of over-production. Prospective growers are urged, therefore, to acquaint themselves with market conditions before investing any considerable sum of money in this way.

The Madison Horticultural Society expects you, Aug. 25-26th.

Ten Items

A. J. Philips

1. I have tried for forty years to get the start of Uncle George J. Kellogg on some horticultural stunt and finally did it June 1st this year by showing him in my garden the first ripe strawberry he had seen this spring since he left Texas. 2. We had our first ripe strawberries and first short cake on the 6th day of June, 1915, notwithstanding the cold spring. 3. My everbearing strawberries, 500 plants, are growing fine. Geo. J. picked off all the blossoms, 140 from one hill, to give a better chance for the fall crop. 4. Of plums I never had a better showing; a Desoto that has been bearing for thirty years is very full; have five or six kinds of the Hanson's plums, very full. Will send specimens to any one when ripe if they send the necessary postage. 5. Have fifty peonies in bloom this date—June 14. 6. Have a round bed with seventy-five Dahlias, and forty cannas on the outside. 7. Have some Duchess and some Wealthy apples. 8. Have two rows of asters, a crop, my garden, one hundred plants. 9. Have one row, thirty plants, of Gladioli. 10. Have a nice row of sweet peas three rods long.

The Autumn Strawberry

We, in common with all horticulturists and some who are not, have a special fondness for the strawberry, and have always regretted their short season. When the Autumn Strawberry fever began to spread we fell easy victims to the epidemic.

We purchased a few dozen plants and as the autumn strawberry is something of an aristocrat, we selected a well fertilized, mellow plat and set them with due regard to their requirements.

SALESMAN WANTED!

We are in want of a few reliable, energetic men to act as agents for the sale of our Northern Grown Trees, Shrubs and Vines from our Nursery. Previous experience not essential; live active men can earn good wages. For our terms address, giving full name, age and reference,

GREAT NORTHERN NURSERY CO.

Baraboo, Wis.

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of all kinds, Farm Crates, Storage Bushels, etc.

For Special Prices Write To

STOLLE LUMBER & VENEER CO.

Tripoli, Wisconsin

Obedient to instructions we hoed them, keeping all blossoms picked off during the early spring and summer. It was hard work but we consoled ourselves with the thought of the delicious shortcakes with which we would regale ourselves and families when the autumn winds lashed the trees and the cold nipped our fingers, but not a shortcake did we get. The plants continued to blossom but we did not gather a cupful of berries in all. This spring they are rank and are blossoming profusely and we are trying to keep them picked off hoping to have those shortcakes yet.

Mrs. L. H. Palmer,
Baraboo, Wis.

An Experience With Tiger Lilies.

I had a thirty foot row of narcissus poeticus in a row and I have them yet though sadly

depleted and thereby the experience:

With the hope in my mind of making the bulb-bed both a spring and summer show, I removed the hyacinths to another bed and planted a double row of tiger lily bulbs one foot behind the narcissus which had been separated and reset. The tiger lilies have thriven gloriously, but the poor narcissus do not bloom, nor increase; they do not even live; they barely drag out a meager existence. Previous to the planting of the tiger lilies the narcissus were luxuriant and bloomed profusely.

A friend to whom I gave a few bulbs of each found that when planted near one another the narcissus did not bloom and seemed slowly starving. When separated they did well.

SUMMER MEETING

Madison, Aug. 25th and 26th

The Pleasure and Profit in Growing Fruit Outside of the Fruit Growing Sections

H. G. Street, Hebron, Ill.

"Successful fruit growing in a dairy section" at first thought does not strike the average person as meaning very much, but when in this twentieth century one makes a success of fruit culture, from a professional standpoint, (even in a fruit center) it takes a great deal of study, experience and observation and even then only a small percent of those who start out ever really attain success; but when it comes to growing fruit successfully (which means as good or better than anything you can buy from any section) and to do this outside of the recognized fruit centers, it certainly takes some grit, for there, you can not step over to a neighbor when some trouble arises and ask him for information or if your spray rig breaks down go to another neighbor and borrow his. No, you have to go it alone as far as any outside help is concerned at the time one most needs it. Therefore right here is where such meetings as this come in and help us out. We can come here and learn each others experiences and those of our state stations and then go back home and try to apply them.

The people in the great Elgin dairy district have probably put as little thought on fruit culture in the last decade as in any section in the northwest. In fact they almost believe that good fruit cannot be grown there, to say nothing of commercial fruit culture. Therefore is it any wonder that they are moved to wonder at the sight of a thirteen acre up-to-date fruit farm springing up in their midst and flock by

the hundreds to see what unseen power is at work to produce such fruit on that place even in a year when the farmer's trees all through that section refuse to bear even poor fruit. But the only advice I can give them is to join the Horticultural Society and learn to go and do likewise.

Twelve years ago I joined this Society but at the first meeting I could not grasp the full meaning of the many excellent points that were brought out, and all the time I really believed that the only sections for real fruit growing were western New York, Michigan, the Ozarks and the great irrigated valleys in the northwest. Therefore when my uncle invited me to go with him through Colorado, Idaho and Washington, to attend the Seattle Exposition I at once jumped at the chance, making stopovers at Canon City, Colo., Twin Falls, Idaho and North Yakima, Wash.

I made as much of a study of their methods and conditions as possible and while at the Seattle Exposition I visited the several county and state exhibits and of course each one would tell the good things about their sections and the poor things about the other sections until at last I began to change my mind about western fruit culture and I came home with the determination to demonstrate to the people of northeastern Illinois that dairy cows and hogs were not the only things that could be made profitable in that noted section.

Soon after that came the hard freeze of 1910 which proved beyond a doubt that root killing was our most serious drawback, but even that is being overcome to a great extent as our crops since 1912 have shown. I am testing grafting on hardy roots and by another year will have

around four hundred apples and three hundred plums on such roots. I have been spraying about five times each season and the good prices we receive repay for the extra expense.

At one of our meetings at Polo, Mr. William Sanford of that place, made the remark that he wished all his apple trees were Wolf Rivers and Grimes Golden and since our fifteen Wolf River trees that (I got by mistake) came into bearing I can see that he was not so far off in his judgment as many of us thought at that time, for they have been the best advertisers of anything we have at that time of year and all sold at \$1.25 to \$1.50 per bushel this year while Grimes, Jonathan and McIntosh sold readily at \$1.75 to \$2.50 per bushel and all were ordered by September 25. The reason why we took so many early orders was partly due to the fact that our Lombard, Native and Hybrid plums together with the big red Wolf apples attract such large crowds; and every one going away full, whether they bought or not. If you are free with your fruit and raise only the best, you can ask a good price and the people will do your advertising for you also. Our customers include all classes, from the Chicago millionaires to the poorer day laborers. Our motto is, "Use each one right whether they be poor or rich," so that none will go away dissatisfied.

LEST YOU FORGET;

The Summer Meeting will be held in Madison Aug. 25th and 26th

COME

WISCONSIN HORTICULTURE

OFFICIAL ORGAN OF THE WISCONSIN STATE HORTICULTURAL SOCIETY

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Volume V

Madison, Wisconsin, August, 1915

Number 12

Madison as a Convention City

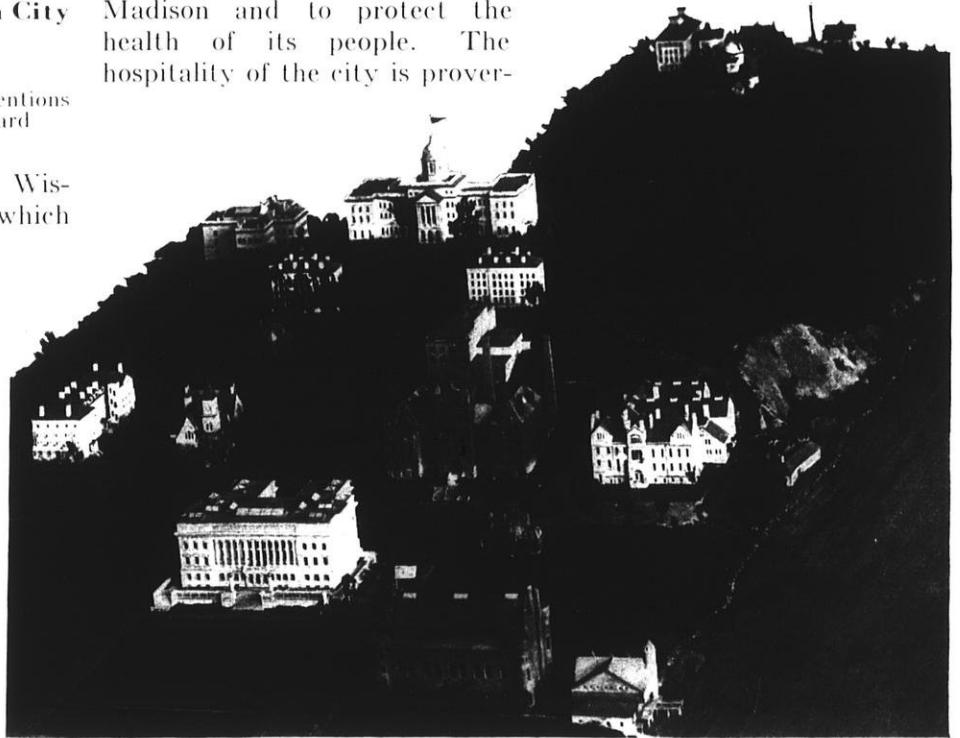
By Don E. Mowry

Secretary Publicity and Conventions
Committee, the Madison Board
of Commerce

"The city of Madison, Wisconsin, has more views which cause the visitor to say 'Gee Whiz!' than any other city I recall, except the cities containing great natural wonders like Niagara Falls, Colorado Springs, and other cities of that class," says Munson Havens, for ten years secretary of the Cleveland (Ohio), Chamber of Commerce.

Mr. Clark Howell, editor of the Atlanta Constitution, says: "You may quote me as saying that never in my life have I visited a more attractive city than Madison. It combines the attractions of both an inland and a water front city. It is the cleanest place I ever saw; in fact, it is one of the most beautiful cities in the world. Nature has done everything possible to adorn

Madison and to protect the health of its people. The hospitality of the city is prover-



Birdseye view of one campus, University of Wisconsin. From the Lorenz model.

bial, and I never spent two days more delightfully than in the visit to your city a few years ago."

In the past few years Madison has steadily increased in importance as a convention center. Within one year, many thou-

sands have passed through the gates of the three railroad depots, and it is the proud boast of the city that all of these went away happy and pleased with the treatment they received from the people of "the four lake city."

Madison is the terminal point

for nine trunk line roads of three great railway systems, the Chicago, Milwaukee & St. Paul, the Chicago and Northwestern, and the Illinois Central. There are fifteen highways leading into Madison from all directions making the city an ideal motoring point from Chicago, Milwaukee and St. Paul.

By reason of its favored situation, located on an isthmus, between two lakes, the city possesses a charm which is peculiarly its own. In fact, there is no other city in the United States thus uniquely located in the very heart of lakeland. Between Lakes Monona and Mendota is a high rolling isthmus extending southwest and northeast, about one half mile in width. On this strip of land the city is located. There are on file in the Publicity and Convention Bureau of the Madison Board of Commerce numerous letters from prominent people all over the country, who have visited Madison, testifying to the beauties and advantages of the city and to its brand of hospitality which has made the city world-famous. For instance, Senator Moses E. Clapp says it is hard to speak of the beauties of Madison without being charged with exaggeration. He believes with Sir Edwin Arnold that Madison is "the most beautiful little city in the world," and William Hard, the well-known magazine writer, says that Madison "with its lakes and hills and its University is this country's most delightful union of the life of nature and the life of knowledge." "No other state capitol in this or any other land can vie with it in natural beauty," says Ex-Governor W. D. Hoard. "While chief executive of the State it was my good fortune to entertain

the famous Frenchman, Max O'Reil. I took him to the top of University Hill where he could look out upon Fourth Lake. He was silent for several minutes then turning to me said: 'All Europe does not possess a spot of greater scenic beauty than is here presented.'"

Citizens of Madison have contributed over \$300,000, by private subscriptions, for the purpose of improving the approaches to the city. These drives have been planned so that one may get wonderful views of the lakes and the hills about the city in a trip over them. Some of the most unattractive spots about the city—marshes, and deserted lowlands—have been converted into recreational places. Not less than 65 acres in two parks were regained from the beds of the lakes. Much filling and draining of marshes has been done, the Yahara river, which connects the lakes on either side of the city, has been dredged, the depth and width of various channels connecting the lakes increased and new driveways opened. Over 30 miles of drives and more than 270 acres of land in parks and playgrounds are controlled by the Park and Pleasure Drive association and maintained under professional supervision. A few years ago 3728 trees and 32,874 shrubs were set out in these parks by the association.

Boathouses and bathhouses have been erected in two of the parks that border the lake shores and a "zoo" has been established in another park. The most beautiful of the outdoor recreational places is Tenney Park, at the north end of the city, on the shores of Lake Mendota, which is eight miles long and about five wide. Along this park flows the Yahara river, through which

pleasure crafts are locked, free of cost, to Lake Monona. Picturesque lagoons, spanned by foot-bridges, divide the park into islands, and at one end are a small waterfall and motor boat locks. On the lake side is a wading beach and also a public bathhouse. From the park's edge the view across the bay of the lake includes the white marble dome of the new state capitol rising above the woods and wooded hills to a height of 283 feet, and the buildings of the state university, two miles away.

Across Lake Monona, two miles from the city, is Lake Monona Park, recently acquired by the city. It was formerly the assembly grounds where chautauquas and summer tenting colonies were held. Steam boats ply across the lake making this park accessible for picnics and holiday outings. Street cars go direct to the park.

In the driveway system are included miles of beautiful, well-paved roadways leading along the shores of the lakes and through the hilly woodlands. Some of them are on private ground and some along public highways. All of them are picturesque and well kept. In some places they run along the water's edge; in others they swing back inland to pass famous Indian mounds. Everything has been done to make them interesting.

From the Observatory of the University of Wisconsin, which is located on University Hill, there is a beautiful panorama view of the city and the surrounding city, only surpassed by the view from the dome of the new state house, from which vantage point one may look in all directions and see "the four lakes of Madison." Already,

CRANBERRY NOTES

By J. W. FITCH

The Summer Meeting State Cranberry Growers Association

At the present time it looks like a much better cranberry crop than last year. Growers who thought they were badly hurt by frost are finding that their prospects are better than they thought possible and barring severe blight and fruit worm damage the state should produce a better crop than for some years. The Twenty Eighth Summer Meeting will be held at the pavilion near Nekoosa on the Grand Rapids Street R. R. line Tuesday, Aug. 10th. This place was decided upon as the best under the circumstances. Mr. James Gaynor requesting that the meeting be not held on the Gaynor Bros. bog upon which the experiment station is located. While it is to be regretted that it will not be held on a bog this summer, there will be ample time in the morning for those wishing to do so to visit one or two bogs and the experiment station and those who do not come in autos should inform the Secretary, J. W. Fitch, Cranmoor, Wis., who can no doubt make arrangements for their transportation and give them all information necessary, as to time of arrival, etc. Dinner and supper will be served at the pavilion by a caterer from Grand Rapids at a reasonable price, thus relieving the ladies of quite a burden. The pavilion affords a splendid place for the program in the afternoon. Among those expected to take part in the program are Mr. Frederic Crane-field, secretary of the State Horticultural Society, Mr. And-

rew Searls, of Cranmoor, Mr. A. U. Chaney of New York City, manager of the National Fruit Exchange, who will give a forecast of market conditions and prospects in Massachusetts and New Jersey. Mr. G. W. Paulus of Grand Rapids, who is preparing a paper on the work and great interest taken by the late Judge J. A. Gaynor of Grand Rapids. Supt. O. G. Malde of the station is collecting valuable data in respect to several points of vital interest to growers as to the effects of the late holding of water, frost damage, etc. Mr. C. M. Secker of Mather will speak on "The Exhibit at the State Fair in September." The best methods of increasing the consumption of cranberries will be thoroughly discussed. After the association meeting, a meeting of the Wisconsin Cranberry Sales Co. will be held. All who are interested will be welcome to attend.

A New Method of Bog Making

J. W. Fitch

A new method of making cranberry bog which promises good returns on bogs which are solid enough to permit of plowing is as follows and was first seen by the writer on the J. J. Emmerich bog at Cranmoor. Mr. Emmerich has a three year old bog which looks very fine at the present time. The method is to double plow, that is to bury the sod by plowing the bottom of the furrow on top of the sod. The tools required are a sod breaking plow, a common crossing plow and a turtle (so-called), which is a heavy block of wood about three feet long pointed at

one end, about 1 foot thick and 18 inches wide with an iron flange on the right hand bottom side projecting out about two inches. This is to help keep the turtle flat in the furrow. The work of the turtle is very important—that is to push the previous sod and dirt on top of it up tight against the one before it and leave room to drop the next sod from the breaker into the furrow deepened by the crossing plow, which follows in the same furrow from which the sod is thrown by the breaker. To start the piece, the land must be back furrowed and four sods removed entirely then plow the uncovered dirt together with the crossing plow. This leaves a deep furrow into which the sod is dropped by the breaker. The crossing plow following throws the dirt uncovered by the breaker onto the sod in the bottom of the furrow leaving the deep furrow for the sod again, but it is necessary to run the turtle in the furrow, before turning the sod into it in order to have a wide enough place for it to drop into on account of loose dirt falling back and the sod not always lying snug against the former one. The driver stands on the turtle. A bog fixed this way is easily leveled as there is about 4 inches of loose soil on top of the buried sod, which can be used for this purpose and all the original grass and brush is effectually killed, the land can be dragged and sanded as desired. This method is considerably cheaper than scalping and removing the sod.

The cranberry exhibit at the 1914 state fair was one of the most attractive on the grounds. The 1915 show will be the "best ever."
F. C.

Barren Trees

A. L. Hatch

Why don't fruit trees bear fruit when they grow thriftily each year and are of bearing age? Such trees usually bloom profusely and yet fail to give satisfactory crops. Without attempting a specific statement of conditions of growth that produce fruitfulness, or discussing the needs of the trees that are generally unsupplied with some necessary element, the case can be briefly stated as follows. The formation of fruit buds was not sufficiently pronounced and mature the previous fall to monopolize the necessary amount of growth when in bloom, the bloom was too diffuse, or in other words spread over too many branches, and the growth of leaf and branch buds was so vigorous as to monopolize the use of material in the tree when the bloom needed it to form fruit.

In commercial orchards these conditions are not usual when the site, soil and varieties are right and the management is what is generally considered best. This nonbearing condition is more usual in gardens and in town grown trees where high fertility and culture produce abundant growth. Occasionally this type of profitless tree may be found in any orchard.

Of course causes that produce the wrong kind of growth should be changed, but there is a way to overcome this trouble that is practical. This method is as follows: just before the terminal or end buds have formed on the twigs of trees making a normal growth, cut off the ends of every twig on the tree that refuses to bear properly. The amount of twig removed need be only one, two or three inches in length. The time of removal may be in

July or August, but should be late enough to prevent stimulating the growth of new branches and leaves and early enough for the forming fruit buds to absorb some of the material that would otherwise go to form twigs, leaves and branch buds. This diversion of surplus material to the fruit buds is the secret of its success.

Early the following spring thin out the branches so as to concentrate more of the growth upon the bloom. Beware of overdoing this operation as amateurs are inclined to do.

Improving the Lawn

Mowing, Rolling, and Sprinkling

There is no hard and fast rule to be followed in connection with mowing the lawn, but clipping twice a week is not apt to injure it, and will induce the formation of a good turf, according to the lawn specialists of the U. S. Department of Agriculture. Too frequent clipping, however, is a drain on the vitality of the grass, and frequently results in permanent injury.

There is some difference of opinion as to whether clippings should be removed after mowing, but in general their removal is advised, especially during wet weather, since if left to lie on the surface they are conducive to the growth of molds, which in turn produce injury to the turf. On new seedings, however, or where the grass is thin, clippings can frequently be allowed to remain with benefit.

New seedings should not be clipped closely, and during the hot weather of midsummer and early fall the mower should be set high for old and new grass alike. The roller should be used

discreetly. New grass is frequently benefited by a light rolling after the first cutting. Old sod should be rolled in the spring to firm the surface that has been loosened by freezing and thawing, but during mid-season it is very doubtful if the lawn should be rolled even lightly, especially where the soil is of a heavy nature.

There are probably more mistakes made in connection with the watering of the lawn than in any other phase of its management. The practice of sprinkling as it is almost universally followed is fundamentally wrong, not that the sprinkler does not furnish enough water to the grass during the season, but that it does not furnish it in properly distributed quantities. Sprinkling for a short period may appear to wet the sod thoroughly, but in reality the water does not penetrate much below the surface. This encourages the formation of surface roots and makes the grass less resistant to the severe conditions of weather and usage.

Except in rare cases, the lawn should not be watered oftener than two or three times a week, provided watering is done properly. A thorough soaking is necessary and should be given in the late afternoon or early morning. The ordinary type of revolving spray is quite satisfactory, but the amount of water applied by it is usually much less than appears. The point to be borne in mind is that the ground should be thoroughly saturated at each application to at least three inches in depth.

Don't forget the Summer Meeting at Madison, August 25th and 26th. The Horticultural Society expects you.

The Jonathan at Bayfield

Editor Wis. Horticulture:

The enclosed photograph is from a snap-shot, taken on July 4, of William Knight of Bayfield, Wis., and one of his 5-year Jonathan apple trees. This tree holds 40 or 50 apples, the development of which Mr. Knight is watching with great interest. This tree is in sandy-loam soil and is in Mr. Knight's 40-acre apple and cherry orchard on a hill several hundred feet above and overlooking Lake Superior and the Apostle Islands. This orchard has an east to southeast slope, yet is unprotected from the full force of the "northeasters," but with no ill effect at any time from the latter.

Rollin E. Smith,
Minneapolis, Minn.

The Oriental Poppy

In the July number of Wisconsin Horticulture we notice an article under the heading "The Oriental Poppy. E. A. Smith, Minn." The writer says, "A blossom will remain in good condition in the field three to five days, depending upon the care and the weather. When cut it should immediately be placed in water. It will then keep for two days."

Mr. Smith is one of a great many, apparently, who does not get the full benefit of his oriental poppies and it strikes us that through your paper a little publicity might be given to the fact that if the stems of oriental poppies are placed for about five minutes immediately after being cut in boiling-hot water, the flowers will keep in good condition and the stems will retain their stiffness for from a few days to a week and longer, depending upon their age when cut.

The Oriental Poppy is certainly one of the finest flowers of our hardy gardens and those who have it in their gardens deserve to get all the pleasure out of it that it will afford; therefore, if the publication of this bit of useful information will give increased pleasure to a certain number of people, why not let them have it?

Currie Bros. Co.,
Milwaukee.

thicker than soup but most of them were hog-wash.

During the last two years there has been an awakening down there. Somebody must have bought a broom and a vacuum cleaner.

The new bulletins are meaty and of much substance; they give in plain terms things we all ought to know. Best of all somebody established the Office of Information which sends to



Two promising Bayfield youngsters.

Something New

For something less than a century the Department of Agriculture at Washington has published and circulated bulletins. Most of them were absolutely worthless to the farmer because if by any chance a fact of importance had been discovered by the scientists of the department, this fact was so beclouded and befogged and mired in a mess of technical language that the author himself could rarely find the original thought.

Somewhat later a series of Farmer's Bulletins was begun. Once in a while one of these was

every newspaper and agricultural journal in the United States brief, readable synopses of their bulletins.

They are most acceptable matter for publication because they are practical and sensible. Many of them have been published in these columns and more will be used. Your attention is respectfully solicited.

Wanted

Two hundred. two hundred word articles for Wisconsin Horticulture. Something from your own experience. Will you help?

Controlling the Apple Borer

"Worming" and painting the trunks of the trees are recommended to owners of apple orchards as efficient methods of dealing with the roundheaded apple-tree borer in a new Farmers' Bulletin, No. 675, of the U. S. Department of Agriculture. A heavy application of some paint that will not injure the trees but will remain in an unbroken coat on the bark for two or three months, is effective in preventing the female from laying her eggs in the tree, and greatly reduces the amount of worming, or the removal of the insects with a knife and wire, that must be done.

The roundheaded apple-tree borer, the most destructive of a number of similar pests, lays its eggs in or under the bark of apple trees. After hatching the larvae feed upon the inner bark and wood to such an extent that the tree is seriously weakened or killed. The pest is found over the whole of the eastern portion of the United States and as far west as Nebraska, Kansas and New Mexico. In addition to fruit trees, it feeds on service, wild crab and mountain ash trees, which makes it advisable for orchardists to remove these varieties for a distance of at least a hundred yards from their orchard.

The female lays her eggs, one at a time, in an incision she has made in the bark, usually just above the surface of the ground. About 15 or 20 days later the eggs hatch and the larvae appear. When full grown these are nearly an inch and a half in length. They first attack the inner bark, eating out broad, more or less circular galleries and thrusting out through small holes in the

bark castings which form little heaps of reddish wood fragments around the base of the tree. During the winter the borers are quiescent but early in the following spring they attack the solid wood, while some of them work their way up the trunk. These last spend one more winter in the tree and then, having passed through the pupal stage, dig their way out and emerge as adult beetles. Three years are required for the insect to complete its development from egg to adult.

Ordinarily, the beetle lives about 40 or 50 days. It is about three-fourths of an inch in length, light brown in color above, with two broad white bands, joined in front, extending the full length of the back; the underparts and front of the head are white. The females rarely fly any considerable distance, so that if the immediate vicinity of an orchard can be kept free from them, there is little danger of a serious infestation.

The most common method of ridding an orchard of these pests is to cut away the bark sufficiently to trace the burrows made by the borer. A hooked wire is then inserted into the burrow and the insect pulled out. If made with care, the wound in the tree caused by this process will heal readily. The castings at the base of the tree serve as an indication of the presence of the borers. Where the burrows are curved or obstructed in some way so that the wire can not be inserted, cotton batting dipped in carbon bisulphid should be inserted and the hole then plugged with moist earth. The gas from the carbon bisulphid will penetrate all parts of the burrow and kill the borer.

In addition to worming, as this process is called, paint is

often used to prevent the beetles laying their eggs. Pure white lead and raw linseed oil, mixed rather thick, will not injure the trees, and when applied to young, smooth bark, will form a protective coat during the egg-laying season. It is probable that this is a more effective method than wrapping the trees with building paper, cotton batting, cloth or other materials sometimes used for this purpose. Before painting, however, the earth should be removed from the base of the tree for a depth of from 3 to 4 inches. The surface of the trunk thus exposed should be first scraped and painted and the earth then replaced. This is necessary, for the beetle occasionally lays her eggs under instead of above the ground.

Orchard Ridge

Orchard Ridge at Gays Mills extends from the reservoir to the McGee farm, three miles, with two spurs or offsets each of half a mile. By actual count 625 acres and 46,875 trees have been planted on these ridges during the past four years and every tree is alive and making a splendid growth.

The orchards are controlled by twelve different joint stock companies, one partnership and three individual holdings. The whole is cared for by the Kickapoo Development Company of Gays Mills. The planting here will undoubtedly reach 1200 acres by 1917. Early Richmond and Montmorency Cherries in our Trial Orchard planted in 1910 will yield a crate of cherries to the tree this year.

The Agricultural consolidation measure, now a law, provides for a department of entomology separate from the department at the Agricultural College.

Powdered Hellebore to Prevent Flies Breeding

A safe and effective weapon against the typhoid or house fly has been found in powdered hellebore by scientists of the Department of Agriculture. Flies lay their eggs chiefly in stable manure. Powdered hellebore mixed with water and sprinkled over the manure, will destroy the larvae which are hatched from the eggs. Since powdered hellebore is readily obtainable, this puts in the hands of everyone a remedy for one of the pests that has been found dangerous as well as troublesome. Powdered hellebore, however, will not kill adult flies which must be swatted or trapped.

It has long been known that flies breed in manure but previous methods of destroying the larvae there by the use of strong chemicals have been open to the objection that the treatment under some conditions lessened the fertilizing value of the manure or actually injured vegetation. This is not true of powdered hellebore. Government experiments have shown that the hellebore is entirely decomposed in the course of the fermentation of the manure and that even in excessive quantities it does no harm except to the larvae it is intended to destroy. Chickens picking in manure treated with it suffer no ill effects.

One-half pound of powdered hellebore mixed with 10 gallons of water is sufficient to kill the larvae in 8 bushels, or 10 cubic feet, of manure. The mixture should be sprinkled carefully over the pile, especial attention being paid to the outer edges. In most places hellebore is obtainable in 100-pound lots at a cost of 11 cents a pound. This

makes the cost of the treatment a little less than seven-tenths of a cent per bushel of manure.

A Plain and Convincing Tale

F. Kern, Bayfield

(Continued from July.)

At Puyallup I found some remarkable things connected with Association work. They have about 1600 members, all growers, two immense canning plants and every other necessity for handling the by-products of the fruit business and this is all managed by one man and last year they paid to the growers \$1,300,000, according to their annual statement from which I am taking these figures and they have but \$2,300 capital stock.

I overheard a conversation between the secretary and the manager while in the office and learned that they were paying the growers 2½ cents per pound for currants. How many want to grow currants on thousand dollar an acre land for 2½ cents per pound? Hands up.

A singular thing about this Association is, the manager went to Wisconsin to study the cooperative association system twelve years ago before they started at Puyallup and their plan was copied after the Sparta Fruit Growers Association.

At Seattle the most interesting thing I saw was what is known as the Municipal Market, where the growers rent a stall every morning at 10 cents per day and sell direct to the consumer whatever they have to offer. This was very well patronized and well kept and comes about as near solving the Producer-to-Consumer question as anything I have ever heard of or imagined. The city provides the building

for this purpose and the rentals go to the city. The stalls at 10 cents are about four by six feet. A striking suggestion as to what will command good prices I saw among the farmers there who were selling eggs. Farmers who stamped the eggs with the date they were gathered and with the seller's name, were getting 5 cents per dozen premium and were selling ten to one against the farmer who did not stamp date and seller's name. Quality, backed by the producer, sells first.

Did not spend much time in North Yakima as there is little difference in conditions there from those at Hood River, Ore. At Coeur d'Alene, Idaho I found a lot of dissatisfied growers, and if they would be honest the same might be said of Spokane but they seemed to be all sworn boosters at Spokane, notwithstanding they were digging out orchards in that district, which suggested lack of faith.

The President of the Chamber of Commerce at Spokane did tell me that he shipped 1200 boxes of as fine apples as he ever saw, through the Association in November last and that up to that time he had never heard a word from them, but he wasn't knocking the country at all.

I went through Walla Walla but was not interested. There was one place that I expected to find that I would be satisfied was better than Wisconsin and that was Grand Junction, Colorado.

I spent a whole day there and enjoyed it very much. Fine little city, fine country, beautiful scenery, the city completely surrounded by a beautiful fruit district. Same story about price of land will apply here. Orchard yields seem to vary in talking

(Concluded on page 194.)

Wisconsin Horticulture

Published monthly by the
Wisconsin State Horticultural Society
12 N. Carroll St.

Official organ of the Society.

FREDERIC CRANEFIELD, Editor.
Secretary W. S. H. S., Madison, Wis.

Entered as second-class matter May 31,
1912, at the postoffice at Madison, Wiscon-
sin, under the Act of March 3, 1879.

Advertising rates made known on appli-
cation.

Wisconsin State Horticultural Society

Membership fee fifty cents, which in-
cludes twenty-five cents subscription price
of Wisconsin Horticulture. Remit fifty
cents to Frederic Craneheld, Editor, Mad-
ison, Wis.

Remit by Postal or Express Money Order.
A dollar bill may be sent safely if wrapped
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Madison, Wis.

The Summer Meet

At Madison, August 25 and 26. Best time of the whole year for a "layoff." Most everybody is coming. Madison is some place in the summer time.

We own this little burg here on the lakes. Also the lakes. Summer colonies, summer hotels, millionaires "cottages" costing a fortune, etc., are conspicuous by their absence. The people of Madison and vicinity long ago pre-empted the shores of these lakes for their own personal,

private and individual use, thus excluding the newly rich and would-be rich who have much money to burn.

All of this is at the disposal of members of the State Horticultural Society and their friends August 25 and 26 without money and without price.

Without entering into any formal details the two days will go something like this:

Wednesday forenoon, 10 a. m. Meet at the State Capitol. Program until 12 m. Afternoon: Meet at Capitol, 2.00 p. m. Program until 5. Adjourn till 8. Illustrated lecture by a noted landscape gardener.

Thursday forenoon: 9 a. m. Take street cars for Horticultural grounds, College of Agriculture. Spraying demonstration by Prof. J. G. Moore and assistants.

Afternoon: Meet at Capitol at 3.00 p. m. as guests of the Madison Board of Commerce. Take autos for 20 mile drive thru city and over lake drives to the Roloff cottage at Mendota Beach. On the way stops will be made at the Vilas Park Zoo, Mr. C. R. Hinkel's gladiolus garden and at one or more of the Madison Vacation Gardens.

At Mendota Beach the ladies of the Madison Horticultural Society will take charge of the crowd. After supper a boat ride around Mendota Lake to the University pier.

If anything more should occur to you, please mention it and it's yours. It's up to you, will you come? Jones and his wife are coming.

We will meet in the Senate Chamber, State Capitol, if the legislature adjourns in time.

Assuming of course that the Senate will be thru unmaking laws by that time. Let us pray.

Program, Summer Meeting

Madison, Aug. 25 and 26, 1915.

Senate Chamber, State Capitol.

Wednesday, Aug. 25, 10 a. m.

Topic—*Home Decoration.*

Trees for Shade and Ornament—Mr. Hepler, Dept. of Horticulture, Univ. of Wis.

Shrubs for Small Plantations and Their Disposal—R. J. Coe, Ft. Atkinson, and M. S. Kellogg, Janesville.

Wednesday Afternoon, 2 o'clock.

Herbaceous Perennials for Home Grounds — Wm. Toole, Sr., and H. C. Christensen.

Annuals and Biennials for the Home—Prof. J. G. Moore.

Madison Vacation Gardens.

A short program by Vacation Gardeners.

A Few Words About Rural School Grounds.

Wednesday Evening, 8 o'clock.

Illustrated Lecture — Parks and Park Making for Villages and Small Cities—O. C. Simonds, Chicago.

Headquarters for Officers and Delegates, Capital Hotel.

What Jones Said to His Wife

Said Jones to his wife: "Suppose we go to Madison next month? Strawberries were a good crop this year, cherries are all picked, Duchess apples won't be ready until we get back and there is nothing else much to bother about."

"We have worked pretty steady all spring and summer and I think a little vacation will do us good. Besides I've never seen Madison in summer. And again Craneheld promises a chance to see the town and all the

Fit Punishment

I have often tried to figure punishment fit for those narrow visioned doubters who, ten years ago, said that commercial fruit growing in this state was an impossibility.

Sometimes I have thought that they should first be taken thru the Bayfield berry fields and orchards, then through the cherry and apple orchards of Door county from Sturgeon Bay to Ellison Bay, then back to the edge of Eagle Bluff in the State Park, way out to the very edge, and then,—somebody give them a swift kick from behind. The fault with this plan is the sudden end, and I hereby propose another.

Send them to Gays Mills and let them be condemned to wander forever the length of Orchard Ridge, through miles and miles of Mackintosh, Wealthy and McMahan, all loaded to breaking with ripening fruit; wander here forever and forever, muzzled.

What Jones Said to His Wife

(Continued from page 192.)

drives and parks they holler so much about down there. I think it would be about as good a vacation as we could plan. Bill can take care of things here for two or three days and of course we will take Roy and the girls along."

"We can start Tuesday noon and get back home Friday noon." Said Jones' wife to Jones,—“Well what are you doing so much talking for, I'm all ready and so are you. You might get some collars when you go down town, I've got everything ready for you."

Your experience, success, or failure, is worth more than all the theories in all the books ever written. Will you pass it along?

Madison as a Convention City

(Continued from page 186.)

Madisonians are asking visitors if they have “seen the city from the dome.” This view should not be overlooked. It is well worth the climb necessary beyond the point where the elevators will take you.

The opportunities for boating, rowing and canoeing on the lakes are innumerable. There are, on both of the lakes bordering the city, ample marine transportation facilities which can be secured at very nominal figures. There are open air pavilions where private parties and convention delegates may, with notice in advance, secure the exclusive use of them free of charge. These pavilions are in great demand during the summer months for dancing parties and picnic parties. There are about 100 miles of boating on the four lakes of Madison and one may take a trip lasting all day. The largest lake, Mendota, is 25 miles in circumference and is 85 feet deep. This will give one some idea of the large expanse of water that borders the city from the west. Lake Monona, on the east, is about 12 miles in circumference and its greatest depth is 75 feet. There are fine bathing beaches all around these lakes.

We, in the middle west, are thoroughly imbued with that catch-phrase so conspicuously displayed on all advertising literature of the Great Northern Railroad: “See America First.” We in Madison, particularly, feel that the claims of our city are worthy of the attention of convention delegates. We earnestly urge them to vote for Madison—the four-lake city.

A city with the third largest hotel in the state, with other

ample hostleries, with exceptional transportation facilities, with more trains entering it daily than any other city in the state, with plenty of good roads, drives and parks, with plenty of boating, fishing, pleasure launches, with the largest and best known of state universities, with a beautiful state capitol costing \$7,000,000 from the dome of which the region of the four lakes may be seen with the naked eye, with beautiful scenery and a democratic people—such a city makes it possible for a large number of convention delegates to come to a meeting in less time and at less average expense than any other city in the middle west. Such a city is the ideal convention city.

**McKAY NURSERY
COMPANY
PARDEEVILLE - WISCONSIN**

**Nursery Stock of
Quality
for Particular Buyers**

Have all the standard varieties as well as the newer sorts. Can supply you with everything in

**Fruit Trees, Small Fruits,
Vines and Ornamentals.**

Let us suggest what to plant both in Orchard and in the decoration of your grounds.

Prices and our new Catalog sent promptly upon receipt of your list of wants.

Nurseries at Waterloo, Wis.

The executive committee will meet Wednesday morning.

Jones backed out at the last minute. What did Jones' wife say to Jones? A year's subscription for the answer.

War News

A, B, C's in my garden and orchard.

Allied Enemies: Aphis, Bugs, Cold Weather, Drouth, and Excessive Rains.

(A)pril to (A)ugust, (B)attles all along the front. Maxims (loaded with bug shot), Submarines (deluges from clouds or hose with high pressure) ineffectual.

(C)ucumber bugs and (C)urant worms still strong in their positions. Aphis retreating but not vanquished.

Rains and more rains have completely conquered the drouth. Cold weather rallying after short retreat.

(D)isappointments. Blossoms on peach and plum tree promised an abundant crop. Very little fruit is left on the trees.

Some flowers entirely ruined by Aphis.

(E)ncouragements. Some fruit on a new apple, new cherry and several new peach trees (enough for sample).

Peaches on old trees (third time) that everybody knew would die after bearing once.

Abundance and brilliancy of flowers including several (to me) new ones.

Profusion of small fruits, strawberries all being everbearing. Remarkable growth of trees, vines and shrubs.

Mrs. G. F.

A Plain and Convincing Tale

(Concluded from page 191.)

with farmers, real estate men and managers of Associations but I procured a copy of the Annual Report of the largest Association there and the price received for Elberta Peaches was 29 cents per crate and apples averaged around 70 cents or less.

These figures may sound "fishy" but understand I went direct from the Mormon city, Salt Lake City, to Grand Junction and I would not exaggerate after visiting the Mormon Temple.

I stopped at Colorado Springs, a beautiful city, and at Denver, not so beautiful and from Denver I came direct to Minneapolis, via Omaha over the Rock Island and from Omaha over the Great Western to Minneapolis, crossing Iowa through the great corn belt and while riding through this fertile state of Iowa where every farmer appears to be independent, has a market for his product at his very door, has the richest soil, grows abundant crops, does not have to irrigate, land easy to work, I wondered what ever induced a man to leave Wisconsin, the best state in the Union, cross Minnesota, Iowa or Kansas and Nebraska and pay fabulous prices for fruit land when he can grow more fruit to the acre in Wisconsin and get more money per box for what he does grow than any man can get for any kind of fruit grown west of the Rocky Mountains. I said to myself "For Cat's Sake" let's stay in Wisconsin. I would rather have one acre of good fruit land at Bayfield, Wisconsin, than any ten acres of any kind bearing fruit west of the Rocky Mountains for profit for a ten year period.

There are now planted in the four Northwestern states half a million acres of apples which are now partially in bearing, or 125,000 acres in bearing this season and an acre of apples in that district is supposed to bear 500 boxes at 12 years of age. With less than 125,000 cars in 1914 the apple crop was considered unprofitable at the price received generally. With this

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condition now and with only 25% of the acreage planted now in bearing what will they realize in 1920 when they produce a 100% crop on half a million acres in those four states. Guess again. They have no market in the Pacific Ocean. They must ship across the mountains and plains and that costs them 50 cents per box, add the growing expense, the box, the picking, the Association charge, and do you wonder that I was not impressed with the fruit business in the west.

I never should have been fully satisfied until I had investigated for myself the fruit growing in the west. I have investigated for myself and am satisfied to stay in Wisconsin and if you hear of any of our Horticulturists who plan on leaving Wisconsin to go west to grow fruit, I don't care what kind, have their heads examined, at the expense of the Society.

Sincerely yours, F. Kern.

Looking Ahead

Door Co. now has about 5,000 acres of cherries. Is there room for more? We asked Mr. A. L. Hatch this question. Here is his answer:

Yours received with the following questions: "What is the outlook for cherry growing in Door county not only this year but for ten or twelve years ahead? Could you confidently advise a young man to plant a cherry orchard at the present time either in the vicinity of Sturgeon Bay or farther north?"

Your questions should be answered from two standpoints. 1st, what the climate and orchard sites of Door Co. can do, 2nd, the human factor of the problem. For the present season I would say that for bloom of sturdy strength it has not been exceeded in all my experience. About two weeks ago the trees were in full bloom and although we have had three frosts since there is no visible injury to the young fruit. Not only is there an abundant set of fruit on the older bearing wood but a profuse bloom on last season's growth of twigs and more clusters of terminal bloom than I ever noticed before. Besides this fruit spurs are already forming strongly for next year's crop. In the fall we have immunity from killing frosts so our cherry tree foliage has full opportunity to ripen the wood and store up surplus food and it is from this stored up surplus that the spring vigor of the trees results. This condition contrasts very sharply with that of other regions where the full growth may be arrested by the first of September or sometimes sooner. During the last dozen years we've been growing cherries by the carload here and judging from that

experience we may safely conclude that for the next dozen years Door Co. cherry orchards will produce paying crops of fruit every year, and so on indefinitely, as far as the capacity and ability of the country itself affects that condition.

As to the human factor of the problem would say that if Mr. _____ and Mr. _____ are alive they will both be growing cherries and making it pay a dozen years hence. Whether Mr. Richard Roe and Mr. John Doe will be doing so or not will depend upon their skill, application, industry and perseverance. If they will cultivate, fertilize, prune and spray properly, and have the right kind of trees on suitable soils and sites they can surely grow the cherries right here in Door County.

Perhaps you think the harvesting and marketing of the immense acreage of cherries we have here will present a very serious problem. Of that only the future can fully tell. There are wide spread changes in all industrial conditions and how far these will affect the labor problem is indeed beyond our knowledge.

As to advising any young man to plant cherry orchards here or elsewhere I respectfully decline. It is not a safe thing to advise anyone unless all the factors are known and even then the way a man's mind develops and operates is a variable factor that often makes good advice a poor investment. A. L. Hatch.

A Good Season

Fruit growers are not complaining this year. Strawberries began early and stayed late; bush fruits are yielding enormously and we will have a bumper crop of cherries and fall apples.

BUSHEL BOXES

HALF BUSHEL BOXES

Potato and Onion Crates

Before placing your order elsewhere write us for our catalog describing our wire re-inforced panel bushel box which makes a very fine package for shipping apples, etc. We also furnish this box with slat sides and bottoms to be used for handling or shipping onions and potatoes and believe after a trial you will want nothing better. This crate can be nicely used for carrying potatoes and onions right from the field and storing in cellar leaving them right in the crates, thus saving time, labor, and keeping the vegetables in better shape.

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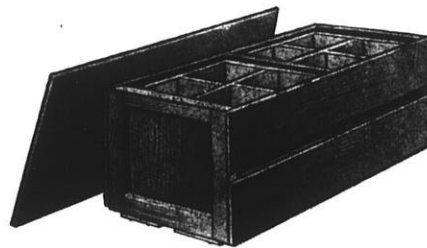
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A new bulletin by the U. S. Dept. of Agr., Washington, D. C., describes methods of preparing and preserving the juice of currants, blackberries, black raspberries and cherries by the same methods employed in preserving grape juice.

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