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The Wisconsin horticulturist: issued monthly, under the management of the Wisconsin State Horticultural Society for the purpose of disseminating the horticultural information collected through the age...

Wisconsin State Horticultural Society

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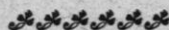
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THE WISCONSIN



HORTICULTURIST

ISSUED MONTHLY,
UNDER THE MANAGEMENT OF THE

WISCONSIN STATE HORTICULTURAL SOCIETY

For the purpose of Disseminating the Horticultural Information
Collected through the Agency of the Society.



A. J. PHILIPS,
Editor and Manager,
West Salem.

VIE H. CAMPBELL,
Associate Editor,
Evansville.

DEMOCRAT PRINTING COMPANY,
MADISON, WIS.

ANNOUNCEMENT.—We have decided, in order to secure as many new readers as possible, to send **The Wisconsin Horticulturist** to all new subscribers the balance of the year until the annual meeting—six months—for **twenty-five cents**, and if our members will each send three new ones we will have a nice list at the end of the year. If you cannot all send three, I know, if you are interested in horticulture and in the work of the state society, you can send one or two at these low rates. We hope to make the account of the state fair alone worth the subscription. The August number received numerous compliments and seemed to give general satisfaction. Please send your contributions on timely subjects, and do not forget to send some new names.

A. J. Philips, *Secretary and Editor.*



WISCONSIN'S RESOURCES are attracting general attention, and its railroads furnish the means to develop them. The limitless iron ore deposits of the Penokee and Gogebic Iron Ranges provide abundant opportunity for the establishment of Iron Furnaces and general iron working industries. Hardwood timber in great quantities attracts manufacturers of all wood articles, including Furniture, Woodenware, Staves, Headings, Hoops and Veneering; the Granite and Lime Stone quarries are attracting attention, as their quality is unsurpassed for fine building work and strong lime. Numerous Clay, Kaolin and Marl beds furnish the best material for Tile, Brick and Pottery.

All of these materials are located along the line of the **Wisconsin Central**, and any one who desires to locate a manufactory is requested to write us, as we desire to confer with everyone who wants a good location with facilities for reaching markets everywhere.

W. H. KILLEN,

Industrial Commis'r.

C. L. WELLINGTON,

Traffic Manager.

H. F. WHITCOMB,

General Manager.

MILWAUKEE, WISCONSIN.

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GEO. H. HEAFFORD,

Gen. Pass. and Ticket Agent.

The Wisconsin Horticulturist.

VOL. 1.

SEPTEMBER, 1896.

NO. 7.

THE LOUDON RASPBERRY.

During the past six weeks I have received numerous inquiries concerning the merits of this new applicant for public favor, also the same of the Columbian—another new one. So I have endeavored to collect some testimony from fruit men on the Loudon and will try and give the same of the Columbian in the October issue. To new readers will say that in July, 1894, Prof. Goff visited and examined the Loudon on the grounds of the originator at Janesville, Wis., and in order to answer questions understandingly, as secretary, I also visited the plantation. We were both agreeably surprised at its productiveness and good quality and our decision then was if it proved as good in other places as it seemed to be on Mr. Loudon's grounds, it would be a valuable addition to our list of red raspberries. July 12th, 1895, the following named gentlemen visited the plantation during the severe drought of that season, to-wit: J. S. Harris and C. W. Sampson, small fruit growers of Minnesota, and L. G. Kellogg, R. J. Coe, D. C. Converse and Geo. J Kellogg, fruit growers of Wisconsin. Their report as published in Transactions for 1895, page 313, was that it was the most promising sucker variety of the red raspberry they had ever seen for productiveness, size, quality, flavor, firmness of fruit, hardiness and vigor and health of plant. As it has during the past season fruited in other localities. I have received responses from some that I have written to regarding it. Mr. C. A. Green, who has been introducing it in the east says: It should build a monument for Loudon. It is monarch of the garden and field for 1896. One grower reports a crop of 4,721 quarts, (over 147 bushels), from one and one-half acres, which sold for \$357.00. M. A. Thayer says July 20, 1896: It is as near a perfect red as I expect to see. E. H. Burson, a fruit grower, says: The

berries on plants set one year ago are as large as average strawberries. The bushes are loaded from bottom to tip. Prof. E. S. Goff says, Sept. 8th, 1896: I have nothing but favorable impressions of the Loudon raspberry. I was much pleased with it on Mr. Loudon's grounds at Janesville and I might have said more in its praise at that time than I did, on our grounds at Madison. It has grown too near some large trees to have a fair chance. Mr. F. C. Edwards of Fort Atkinson, Wis., a small fruit grower, says Sept. 8th, 1896: I am convinced the Loudon is what we all want. I am rather slow to take hold of any new sort of fruit until I am warranted in doing so as we have so many valuable sorts now. I do not think the quality is any more than ordinary. I consider the following points very commendable in it, its large size, good shape and color. It produces an enormous crop and it is long



season. It will remain on the bushes unpicked the longest of any raspberry I ever saw. It is as hardy as any red raspberry I know of. It did not kill here at all last winter. I have seen it do well on loose sandy soil, also on sandy and clay upland. It has splendid foliage and is very healthy. I wish I had a large field for fruiting next season. I also like the actions of the Columbian and will give both a fair test over a large acreage next season. Mr. C. W. Simpson of Minnesota, who is an extensive grower of small fruits near Lake Minnetonka, says, Sept. 8th, 1896: I am so far very well pleased with the Loudon. In the northwest they look thrifty and healthy and what berries I saw this season were fine and large and solid enough for shipping. I will plant largely of it if it comes out well the coming winter, without covering. It did so last winter and the canes put out to the very end buds. Clarence Wedge, a fruit grower of Albert Lea, Minn., says, Sept. 9th, 1896: The Loudon raspberry is one that I should give a thorough trial if setting for profit, as it seems very healthy and fruitful, but I have not grown it long enough to give intelligent advice. On my own plantation the fruit was very fine the past season and the bushes made a beautiful growth and will furnish us plants to increase our plantation next spring.

MONTHLY MAGAZINE.

Prof. E. S. Goff says: I am much pleased to note the marked improvement in the August number of the Horticulturist. If we can maintain the standard of future numbers as high as this, I feel sure that our magazine will prove a success.

F. C. Edwards of Fort Atkinson, writes: I wish to congratulate you on the appearance of the August monthly. Give us more of the same kind. I will send you an article for the next number.

Clarence Wedge, formerly horticultural editor of the Northwestern Agriculturalist of Minnesota, says: Your monthly magazine is a credit to your society and to yourself. We feel proud of our native state, Wisconsin.

G. J. Kellogg writes: August monthly O. K. Glad you put

in a word of caution about the Peerless, and what you said about blight.

S. H. Marshall of Madison, writes: Am much pleased with the August number of Horticulturist and its original matter. If it continues so full of instructive matter I think I will be able to send you a list of subscribers.

Hope he will and hope at the greatly reduced rates for balance of the year every member will send us a good list—Secretary.

LESSONS OF THE HOUR.

Eds. Horticulturist: How to save the early and fall apples is a question of vast importance. Never before has Wisconsin been so burdened as this August with apples. Thousands of bushels are rotting, thousands are peddled from house to house in the villages and cities at 5 to 10 cents per peck.

Had proper preparation been made in season the waste might have been evaporated and saved. In 1897 there will be a light crop of apples most probably, but in 1898 look for a surplus again. There ought to be cider vinegar enough made this year to supply Wisconsin for two years at least. Care in handling the fruit crop will pay. Every good apple should be as carefully handled as an egg, whether for near market or to ship.

The usual practice of farmers of shaking off the fruit and bagging it and drawing in lumber wagons to market, cannot be too strongly condemned.

Additional to evaporation we must have cold storage to hold the surplus of early and fall apples. The season of 1896 has pushed everything to maturity early, hence early decay, and the greater care necessary to secure the late fruits.

Wealthy and Longfield which should not be picked until October fell badly and had to be picked in August. McMahon was picked before August 20, and kept till Sept. 1st. Wolf River is only partly picked and hangs well on the tree for a large apple. Alexander is earlier and drops very badly except on clay.

With the present experience, for prairie soils I would give this list: Yellow Transparent, Duchess, Wealthy, McMahon, Fameuse, Wolf River, Malinda, Longfield, Flushing, Spitzenberg, Eureka, Avista and N. W. Greening.

The question "Have we a good winter apple?" I answer, no. Good means everything, tree, quality, productiveness and keeping. Golden Russet comes nearer than anything to fill the bill but this is not satisfactory. N. W. Greening has size, productiveness and keeping but is poor quality. Tree as yet proves hardy but what may happen after a heavy crop followed by a hard old-time winter, is yet to be seen. We hope it may stand the test. We want a winter apple for Wisconsin as good as Grime's Golden, Jonathan, Wine Sap, R. I. Greening or Baldwin.

Has the coming apple been seen? Wisconsin seedlings to the front, 20 years trial necessary, perhaps 10 years might answer. Why not plant apple seed? Yet we have a thousand kinds now in Wisconsin, Minnesota and Iowa competing for the best winter apple. What is its name and who is the man to show it?

GEO. J. KELLOGG.

Janesville, Wis.

SECRETARY'S NOTES.

Have received from the Jewell Nursery company of Lake City a box containing some fine specimens of a wild plum. They arrived without a name but I brand them to be the Superior, a new variety being propagated by them that originated in northwest Minnesota. The skin of the specimens was free from astringency and was very tender and the plum very good in quality. If they prove hardy and productive it will be a valuable addition to our list.

SCHOOL GARDENS FOR CHILDREN.

Am under obligations to the secretary of the Massachusetts Horticultural Society for the second part of their report for 1895. It is full of interesting reading, but more especially the report of the committee on the children's school garden. If I can obtain the cuts accompanying it I will present this report,

or parts of it, to our readers in a future number of our monthly. Have also received from L. A. Goodman, secretary, a number of the reports of the Missouri society. This report is full of valuable information and interesting discussions. The closing part consisting of miscellaneous papers, contains sufficient good reading to form a valuable report alone. One copied item on winter protection for strawberries is well worth repeating. I cover the rows with manure the first time the ground freezes. As soon as corn fodder will do to feed, we stop hay feeding and cut fodder for our horses. What they do not eat we use for bedding. Under the horses they are tramped flat and absorb all the urine. This bedding is saved in some box stall and is used to cover the strawberries. It is the best mulch I ever used as it contains no seed, is light and the rains and melting snows leach the fertilizer down to the roots of the plants. Among the Wisconsin names I notice as contributors to this department are those of W. D. Boynton of Shiocton, J. L. Herbst of Sparta and C. L. Pearson of Baraboo. Space will not allow much that I would like to repeat to be copied, but I cannot pass without notice the closing of a paper on management of boys, by a Mrs. J. T. Snodgrass. It is full of good things and says in closing: To their hands whom we train with love and prayer we must trust the jewel of our country's honor. We must tend the tree with patience, water it with love, spray it with honesty, pour the sunshine of happiness upon it and God will give the fruit. She tells a good story in her paper about boys being on a par with their fathers. An angry mother proceeded to punish her faulty boy with a stout stick. The boy did not relish that treatment and made his escape by running to and crawling under the barn, an opening so small that the large, determined mother could not follow. So she nursed her wrath until the father returned and at once ordered him to crawl after the boy and bring him out for punishment. The father being acquainted with his better half, at once obeyed and proceeded to follow in the wake of the boy. When he had proceeded some distance in the dark he heard a whisper coming through the darkness saying, "Dad is that you? Is she after you too?"

WATER FOR TREES.

Having read in the Year Book of Agriculture for 1894, issued by the department, a treatise on water for growing plants by B. T. Galloway, chief, and A. F. Woods, his assistant, I considered it worthy the careful study of horticulturalists and to test it I selected two thrifty McMahan apple trees for an experiment, and though everyone said in my locality that we had plenty of rain all through the summer, I watered those trees from two to three times each week, thinking it would be a good way to raise some large specimens to beat Uncle Chappell with at the State Fair. They both bore a nice crop but the apples were not near as large as on some other trees not so well cared for, and not near as large as the fruit on a top grafted tree, but while expecting results in size I found them in another direction, for while on some of my McMahan trees the fruit dropped before picking quite badly, in some cases twenty per cent., on these watered trees only two or three dropped and on the top worked tree not one dropped and these three trees were left to the last, Sept. 5th, before they were picked. Why was it? I think these trees had more strength and vigor enabling them to hold on to their fruit.

STATE FAIR.

The present indications are that the fruit exhibit will be very large. I know of three growers that feel quite confident of securing the grand sweepstakes, and several have hinted that they were quite sure of first premium on such varieties as Wolf River, Alexander, McMahan, Hibernial, Wealthy, etc. But Vice President Hirschinger, one of our old time exhibitors, who has over six thousand bushels of apples this season, views the situation in a very sensible way. He says: If it were an ordinary year I would be quite sure of sweeping the board, but while I can make a show of fine large apples I realize this fact, this is a great fruit year, and the other fellow too has good fruit and will be hard to beat, so we may expect to see some as fine fruit as fair goers often have a chance to look at. There will be some very fine seedlings on exhibition. Brother

Kellogg says there are a thousand new seedlings in Iowa, Minnesota and Wisconsin, all claiming superiority as the best winter apple. One thousand is putting it high, but all who have seen his cut of the man chopping his strawberry with an ax to fit it for use, then using a wheelbarrow to carry it, will at once see that he inclines to large stories. Some have asked for time to be extended for putting out exhibits so as to hold the early varieties back, but there will be much to do to give the judges a chance to work. Nothing but cut flowers will be granted a stay and all will be treated as near alike as possible so be on hand as early as you can.

RENOVATING AND CARE OF ORCHARDS.

I have received several letters lately on the above subject and as I cannot take time to answer all at length I will give a few answers here from my stand point and will solicit contributions from others for future numbers, both on this and also the care of small fruit plantations

Many of the old orchards of Wisconsin are in June grass sod and the ground around the tree is in such shape that it sheds rain as easily as a poor shingle roof. Consequently such trees are starving, as F. W. Chappell would say, for want of moisture, in short terms they are hide bound, would say different soils require different treatment but a safe rule to follow is to place the soil around the tree in such shape that it can retain and utilize the water that falls. Old trees partly decayed and those half killed by blighting, cut down and burn up as soon as possible. Serve old trees that bear poor fruit the same, do not try to save them by top working. Life is too short to spend time with them when you can set healthy, vigorous young trees for this especial purpose. A good application to the land of decomposed stable manure in the shape of mulch or spread on after plowing will help and the more wood ashes you can apply the better. Some east and south recommend commercial fertilizers but at present prices for crops the grower does not take kindly to spending much money for those manures and will only use that that is available on the farm. I see that in some localities in the south, cow peas are sowed largely after June 1st to furnish nitrogen

to orchards and small fruit farms. Scraping the old bark off and washing occasionally will help the appearance but if a tree is kept well protected for the first seven to ten years of its life they will not need much washing or scraping. Some say borers go shy of a wash containing a little sulphur and carbolic acid—I know they go shy of a tree that is protected and has a sound, smooth, healthy bark. Though I have never sprayed I do believe that any treatment that tends to make the foliage better helps the tree, and a continuous syringing I believe prevents scab. Avoid allowing heavy crops of grass or weeds to grow in the bearing orchard. All such take the moisture from the ground that the tree needs. I notice that in different places this fall that as fruit was picked very early and rains in most places have been abundant the trees are overcoming the injury caused by extreme heat in blossoming time and will have in most cases a very respectable foliage when the frosts bid them shed their leaves for winter.

The saying that there are exceptions to all rules, I found to be true. The other day I read in an horticultural article that all fruit buds are invariably formed the fall previous to leaving, but I discovered last week that a Virginia crab set last spring made a new growth of three inches and on the tip of that growth is a well formed apple. President Underwood, of Minnesota, says in reply to the receipt of a specimen of my new Duchess: It may be valuable but it can not have been grown from a Duchess cion, but the professors say there is such a thing as a bud sport. If I ever saw any other apple like it, I should think different, but the cions were cut in my orchard and I only grafted the Duchess, Wealthy and McMahan that year, so I am quite sure it was from a Duchess cion.

A DAY IN RICHLAND COUNTY.

September third a meeting of the executive board was held in Madison, and the next day, in company with Prof. Goff and President Kellogg, we took an early train to Lone Rock in order to visit the orchards of Mr. A. L. Hatch and the late S. I. Freeborn. Found Mr. Hatch very busy, he having shipped near two thousand barrels of apples from his own and neigh-

boring orchards this season. Mr. Hatch has done a paying thing for his neighbors in inaugurating the plan of shipping together in car load lots, thereby making a great saving in freight; but he was complaining some of the failure of the interstate law, as he heard the day we were there that railroads were carrying apples from Chicago to Minneapolis at ten cents per hundred pounds, thereby lowering the price of his apples, while he pays double that for less than half the distance. Mr. Hatch still has a fine crop of very smooth and handsome Fameuse to pick. Trees all very heavily loaded. Longfield and Patten's Greening so much so that they are out of shape and much of the fruit necessarily small. He feels very friendly to a new variety. He is growing the American Codlin. The Walbridge and Tallman were the only winter varieties that are bearing much fruit with him. We in company with Mr. Hatch, examined the trial acre and found the work of Mr. Cotta in top working on the trunk of the Whitney crab a failure, owing to the fact that the tops out-grow the body. We found there the Windsor, a winter variety originating near Waunakee, in Dane county, Wisconsin, and put out by J. C. Plumb. The Forest, another Wisconsin seedling introduced by F. K. Phoenix; and the Hoadley originating at Baraboo, Sauk county, and introduced by Charles Hirschinger, all bearing and looking well, in fact these constitute the three most promising new varieties in the orchard. The Windsor particularly so, as it is a winter fruit of good size and production. Our next visit was the top worked and seedling orchard of the late S. I. Freeborn near Mr. Hatch's. Ever since Mr. Freeborn explained to the writer the plan he was using in planting seeds, I have been impressed with the idea that some good seedlings would be grown there, and I now feel that in his untimely death the horticulture of Wisconsin has suffered a great loss, for no one knows of those seedlings as well as he did, and no one seems to have the interest in the orchard that he did; his life work was there, and several have told me one desire he had to live was to see the outcome of his seedlings. For a number of different years he would save the seeds of a peck of apples from the old tried sorts that he found growing in his own or Mr. Hatch's orchard near where they could be

fertilized by other varieties, and plant them. The result is thousands of trees in nursery rows beginning to bear, some of course worthless but others fine. I found no one variety that followed its parent as close in color, size and shape of tree as the Duchess seedlings, Longfield coming next. I have specimens of over a dozen kinds and in saving them I adopted this rule, to save nothing that was not from four to eight weeks later than Duchess and to all appearances as good in quality and tree as its parent, and I also made it a rule to save no specimens from a tree that was blighting or dropping its fruit. This I know was exacting, but when there are so many to select from it stands one in hand to be particular. I do think there are varieties there that will be very valuable for Wisconsin and which if properly introduced and brought out by experienced hands will prove monuments to the memory of Mr. Freeborn that will be remembered by more people than any marble slab could be because they will be scattered over a wide range of territory. I well remember my last visit with Mr. Freeborn at the Schulkamp hotel in Madison, and when he told me of his seedling scheme I related to him my success using the Virginia crab for a stock in top working, he promised me some of his cions as soon as tested and I promised to send him some Virginia cions, which I did the next spring, and when I found some young Virginia trees growing there I was reminded of the circumstance and could not but regret that though the young trees were alive the hand that intended to change them to top worked trees was still in death, and his valuable life work waiting for some one to develop it. This is Sept. 8th and my last Peerless dropped from the tree today and I believe there are seedlings in that lot if undisturbed will be found hanging on the trees firm and fast four weeks from now and those seedling were bred by Mr. Freeborn with intelligence and for a purpose. No doubtful guess work about it. I have just been looking the basket over and remarking them, and to say that there are some beauties is putting it mild. I think I will take at least part of them to the state fair and do hope that some arrangement can be made with Mrs. Freeborn whereby the state society can assist her in following these up, as to develop them will be of value to her and to the horticulture of

Wisconsin. To find a lot of seedlings so promising and so intelligently grown is a rare thing indeed. I saw besides the Duchess and Longfield seedlings some that resembled Hiberna, Famuese and Utter, and if memory serves me right Mr. Freeborn informed me he used seeds of all those varieties. It was a long day from start to finish, to-wit: from three a. m. until twelve at night, but we saw much that was interesting though rain hindered us some, and I think we saw some very valuable object lessons in horticulture. The apple crop is immense wherever one goes, the prices are very low, the markets in the larger cities are glutted, apples are rotting on the ground and still the unbelievers say Iowa, Minnesota and Wisconsin cannot grow apples. When passing along the Wisconsin and Mississippi rivers and looking at the long ranges of hills they seem high, barren and uninviting places, but when you follow up some beautiful valley and reach the summit and regale yourself with luscious apples and the best of grapes which are raised here in perfection, then the scene changes, and you feel as did one of old that it is good to be here. Thousands of acres of cheap bluff land in Wisconsin are lying idle and thousands of farmers' children go without apples, though they are cheap, all because they lack the necessary energy to buy, plant and care for trees.

A woman, whose husband would not be guilty of planting an apple tree, called on me a few days ago and ordered a bushel of No. 20's to be sent in a week. I said: "We are very busy, and it is so small an order; better take them in the buggy with you." She said in horror: "Oh, no. I am too busy to do them up and the young ones would eat them all up." "Why," I said, "that is what they were made for—let the young ones have all they want." I have wished many times this fall that the poor children of Milwaukee could have what we are wasting and feeding to stock.

301 Prospect St., Cleveland, O.

Jan. 13th, 1896.

Friend Philips:—I am here for medical treatment and expect to remain for a month or so yet. I shall be unable to attend the meeting in February or send paper, which will for once, no doubt, be a relief.

Amount due me on Experiment Station please forward to my address at home, in Ithaca. As you are aware, there will be no report to make except that the trees promise a good lot of fruit another year, and that not enough was grown this year of any kind to make any reliable report upon that has not already been made.

I hope you will have a good time at the meeting.

Cordially yours,

A. L. Hatch.

REPORT OF TRIAL STATION AT WEYAUWEGA, WIS.,
1895.

F. A. Hardin.

Take the trees on a whole they are looking nicely, but as the past season was very dry, some trees made but little growth, while others made a good growth.

In the spring of 1890 I set one Idaho pear. The whole tree was killed the past season by blight. In 1891 I set two Bessimenaki pears. They also were killed by blight. But there were two Wokarska pears set in 1891 which have made a good growth and have never blighted.

We have lost the following trees after one year setting:

Two Malinda; 1 No. 257 Russian; 1 No. 4 Avel; 2 President Smith, killed by rabbits after they had leaved out; two Rockford plums, killed by borers; one Wisconsin Spy, killed by blight.

Scott's Winter and Yellow Transparent blighted very badly, and a larger number of others showed some blight. About

25 per cent. of the trees blossomed last spring, but owing to the heavy frosts the most of the blossoms were killed; some were not, but there were very few perfect apples and nearly all showed frost marks and nearly dropped before they matured. There was on an average of about eight to ten apples to a tree; a few trees had twenty to twenty-five.

The following is a list that fruited:

Baraboo, Hoadley, Longfield, McMahan, Berlin, No. 44 Vor, Duchess No. 361, Duchess No. 2, Duchess No. 6, N. W. Greening, Okebena, Gideon, Raspberry, Glass Green, Wealthy, Windsor Chief, Yellow Transparent and Seedling, from Wolf River.

REPORT OF CONDITION OF TREES PLANTED ON EXPERIMENTAL STATION AT SPARTA.

By C. E. Tobey.

About 160 trees have been planted on this station and most of them have been planted five and six years.

The soil is quite sandy—a loam—and ground has a decided slope to the north.

The following apple trees are alive and in apparently healthy condition: Duchess No. 2 and No. 3, Baraboo, N. W. Greening, Long Arcade, Daisy, Simbrisk, Judson, Striped Anis, Raspberry Apple, Okabena, Hoadley, 12 M., 22 M., Delaware Red Winter, Snow.

The following apple trees are in good condition apparently at top, laterals growing nicely, but all show an unhealthy condition of the trunk below and sometimes in crotch, being black: 35 M., Antinovka, Bell Pippin, Duchess, Simbrisk No. 1, Scott's Winter, McMahan, Walworth Pippin, No. 46, Barsdorf, Hybrid Seedling, Peerless Maple, No. 46 and Wisconsin Spy.

The Bessarabian and Skianka cherries are in nice healthy condition.

All other trees are dead.

Wednesday evening,
Senate Chamber.

Recitation—"On The Other Trail."—Miss Daisy Converse,
Ft. Atkinson.

WHAT SOME OF OUR EASTERN NEIGHBORS, AS WELL
AS OURSELVES, ARE DOING IN RAISING FRUIT.

F. C. Edwards, Ft. Atkinson.

It was to my pleasure, and perhaps profit, that I visited some of our eastern states several weeks last August and September. It is not always safe to talk of your neighbors, but in this case I will venture.

In Canada, on the south border of Lake Ontario for a distance of thirty or forty miles this side of Niagara Falls, the whole industry is fruit raising, and in a successful manner. In New York, in a beautiful valley running south of Oneida Castle, formerly the home of such earnest men as Phil. Armour, Gov. Hoard and our worthy treasurer, fruit trees were loaded with all they could hold; some Greenings and Baldwins had twelve barrels of fruit hanging upon their branches. Pear trees of all sorts did equally as well.

Near Oneida Mr. Thompson showed me over his fields of the far famed Columbian raspberry of about twenty acres. The young planting was as large as at two years, and I never saw such canes as I saw in his old fields. When asked if he used any fertilizer he replied, "wood ashes, not to exceed one ton per acre." That was all he used on any part of his land. His last season's crop was about 30,000 quarts and sold at the net price of eight cents per quart in Oneida. If this fruit will do as well on Wisconsin soil as it does on his soil it will be very valuable to us, and will stand at the head of the raspberry family.

In Massachusetts, a state made of rocks and a little soil to fill up the crevices, fruit trees were in the fence corners, in the woods, in the pastures, and sometimes in orchards, generally producing a fairly good crop. The fruit trees were nearly all old ones and no apple trees are being planted. Apple, cherry, plum and pear trees stick to life with a wonderful tenacity,

some of these trees are over one hundred years old, and bid fair to live one hundred years more.

Thirty miles from Boston we saw a peach orchard of four acres with 1,500 bushels of fruit on its branches, as fine a show as the heart could wish, and here, for the first time in our lives, we ate good peaches. A peach grower in Massachusetts is apparently satisfied with two good crops in the life of an orchard. On an average he gets a crop once in three or four years. Small fruit is cultivated to a considerable extent, but the rocky formation of the soil makes cultivation difficult, and results, in prices and yield, are no more per acre than in our own state. It was my pleasure to meet the professor of horticulture at Northboro who has a farm near that place devoted to raising small fruits, peaches, pears, cherries, plums and other fruits. In looking over this farm we found they had as many discouragements as we have along the pathway of a fruit grower.

I was very much disappointed to find that there was very little fruit of any kind near Rochester, New York. On Ellwanger and Barry's grounds we saw specimens of all tree and plant life. Among these were one hundred varieties of pears in the ripening stage, and the little Seckels were at the head on the standard of excellence; Flemish Beauty and Bartlett ranked closely with them.

We found that nursery business and fruit growing are two separate branches of business. While looking at W. S. Little's nursery and orchard he said his apple orchard did not bear, he could not attend to it, it did not pay him and he was going to cut it down. One of the farmers twelve miles north of Rochester, where there are thousands of apple trees, said their orchards had not borne to any extent for five years and he was talking of cutting his down. What does this teach us? That apple growing in New York, even for commercial purposes, belongs to sections of country especially adapted to trees and fruit production.

Small fruit in New York is raised much more extensively than in Wisconsin. They get no more yield per acre and cultivation is not as easy as with us. They get from four to six cents per quart for their product.

Fruit growers of Wisconsin, let us understand our position

as representing a branch of business that deservedly is receiving the attention of thousands of our people. We point with some degree of pride to our Zettle of Sturgeon Bay, our Hatch of Ithaca. Sauk and Waupaca counties growers and many others. We see our Hatch and Goff, our worthy president and others banking money in the commercial orchard of the future. Our secretary, not only having a commercial orchard but carrying into this business cheap insurance by the lath protector.

The commercial orchards of Wisconsin, that are a success, have their favorable locations the same as our neighboring states. Small fruit culture in Wisconsin has as many natural advantages as any other state in our union. The virgin soil of Wisconsin was producing small fruit of all sorts before the tread of the white man was heard over its borders. It grew upon its hillsides, and in the valleys, in its wild and natural state. When we take our best tame sorts and place them under cultivation we have scarcely any limit to our success in this department.

Wisconsin is rapidly becoming a state of large cities. Who shall feed them? Who shall wait upon them? Will it be Wisconsin soil that is to furnish the fruit to her citizens instead of Michigan, Illinois and our neighboring states?

The fruit product of Wisconsin, even at the present time, is worth millions of dollars annually to her people. We point with some degree of pride to the small fruit growers at Racine, Milwaukee, Dousman, Oconomowoc, Ripon, Sparta, Baraboo, Hanover, Janesville, Ft. Atkinson, and a hundred other towns where growers are raising a car load, more or less per day in the fruiting season. The rays of the sun stream down upon us with as kindly glances as upon any of our neighbors, nature has provided us with a more fertile soil and all it needs is good brain and brawn to place the work of the Wisconsin horticulturist second to no other branch of business that engages the attention of our people.

DISCUSSION.

Prof. Goff—I feel like emphasizing some of the statements made in this paper, especially some of the comparisons made on fruit growing in this state compared with New York. It

is just as Mr. Edwards has said, Wisconsin is a natural place for growing small fruits. They may go ahead of us in apple growing in New York but they can not in small fruits.

J. D. Searles—I supposed they were doing better in the old Empire state than we are doing here in Wisconsin. The British provinces have sent down word they would like some of our fruit. I do not think you will ever see the day when four and five cents will be the prevailing price for fruit in Wisconsin.

Secretary—I want to say a few words in commendation of Mr. Edwards' paper in reference to what he said about our State Horticultural society. I do not know but we shall have to praise ourselves. Maybe it's like the old man when they told him self praise did not do very well; he replied, "yes, but we can have it when we want it."

When we take into consideration the fact that the future of our society depends upon the rising generation we will make greater efforts to interest them in the study of horticulture.

When we take into consideration the fact that the government sent a man to Wisconsin to investigate certain charges made about child labor in Wisconsin and that man did the work that was assigned to him and stated over his own signature that they were working the lives out of those children, they were working children in places where our stockmen would not keep their horses, and when we remember that our society is interesting over 4,000 children in becoming useful citizens, it seems to me that we ought to increase our appropriation for this work so that we can reach 10,000 instead of 4,000. When we see what we can do, and have done, we ought to feel a little encouraged.

WHY SOME HORTICULTURISTS BECOME DISCOURAGED

Mrs. Jos. D. Treleven, Omro.

Mr. President, Gentlemen and Ladies:—I do not know why I consented to read a paper before this gathering of experienced horticulturists, as this is the first state meeting I have attended, while others here have been receiving instructions from these

gatherings for years and have had long experience in horticulture. Having lived on a farm the greater part of my life and been more particularly engaged with the care of a large family, and the work of a large farm dairy, so aside from raising enough small fruits to furnish the family throughout the year, and sometimes a few to dispose of, my experience is limited compared with that of many others. It is generally claimed that the section of country where I reside, is not as good for the growing of an orchard as some other localities in this state, but in small fruits I think we can compete with the rest, so I concluded to tell some of the discouraging features in horticulture, which have been brought before me, as an amateur, in the work.

I am led to believe that almost every one, engaged in farming, would like a bountiful supply of fruit of different varieties, if it could be had without expending much time and labor. And this I give, as the first reason why amateurs in horticulture become discouraged. No one can be successful in horticulture, without bestowing much time and labor, as very few amateurs have a bank, or a government position to supply the necessary requirements. "Eternal vigilance is the key to success." Following this, comes, lack of love for the work. It is love for the work that deepens the interest in it, and causes the grower to study to know more of the nature, growth and development of his plants, and to delve deeper into the mysteries that surround the growth of every individual tree, shrub and vine. For example, our friend Fisk, who has met here with you several time, has quite an encyclopedia within his mind, relating to the names, habits, peculiarities, etc., of trees, shrubs and vines, which knowledge grew out of his love for horticulture. A true lover of the work is ever seeking to gain all information possible, from practical men, and careful observation, for, if he lets storms, frosts, hail, drouth, a regiment of insect pests, and many other troubles, which are beyond our control, discourage him and cause him to be disheartened, he was not cut out for a horticulturist. Instead, these things should bring him to use his brains all the more, in discovering ways and means to overcome them. In the present time, with

our valuable papers on horticulture and our horticultural meetings, giving practical information and profit by the experience of others, ignorance has no excuse. There is a love in horticulture, however, which no one lacks, and that is the love for the ripened fruit when placed upon our tables, but it is a "consuming" love.

The third feature I beg to mention is the carelessness and neglect of the grower. For instance, a man sets out an apple orchard on low, black soil without any drainage or wind breaks, no protection from mice, rabbits or sun scald, and hurries the setting, any way to get them set, and then expects Providence to care for that orchard until the trees get to fruiting, or at least it looks that way. Ere long, you hear the owner say, "It is no use to set out an orchard—I am completely discouraged. I set so many trees and scarcely any of them grew. I do not see why it was." Of course the tree-agent, or nurseryman was to blame in his estimation, but, would that same man let his horse or cow have such care as he gave that orchard? The true cause of failure, you readily see, was carelessness and neglect. How true the old saying: "Heaven helps them that help themselves." Another reason has been, that we amateurs have not been particular about planting varieties adapted to our climate. Instead of buying nursery stock at home, we send our orders away, where climate and soil are very different, and it takes time to recover, (if ever), this abrupt change. The first season after the young tree has been transplanted from the nursery, to its permanent home in the orchard, is a critical period in its existence, and on its growth during this period depends, in a great measure, the future value of the tree.

The trees from these eastern and southern climates fail to meet the expectations, and many loose courage and will not replant. "Try, try, again," is the old saying, and in horticultural work there is certainly a place for the "try, try, again," for, to be successful, a few disappointments must not take our courage, but we must try many times before we meet with the desired results.

Still another reason why our horticulturists become discour-

aged, is the misrepresentations and exaggerations by some agents, and by glittering catalogues issued. I think I must say also, with dealers putting in substitutes, for I have had a little experience along this line. My husband may not have been as careful as he might in purchasing nursery supplies, but I can say, he always has been careful in setting and caring for the same, so I feel free to cite a few instances which are quite fresh in memory for some happened when we were like many new beginners, when every dollar counts. The first instance was buying thirty snow apple trees, and those that lived proved to be crab-trees with the exception of one. Another of fifty trees and when they were delivered they were all substitutes. Still another of seventy-five trees, and the few that happened to survive turned out to be Whitneys. Concluded to try plums; bought twenty-five very choice plum trees. They proved to be quite a good wild plum. My husband is an Englishman, so he concluded to try some English black currants and English gooseberries. It must have been the name he was partial to, for he was not partial to the berries when ripe. His first investment in blackberries, was claimed to be Ancient Briton, from our Prison City nursery, and I assure you they were ancient indeed, too ancient to be eaten. We have kept a sample vine to experiment on. The first 500 strawberry plants proved a failure, and although we have raised some very fine strawberries since that time, we have never raised any that attained the mammoth size that it took a wheelbarrow to place it on and the strength of a man to move the wheelbarrow.

I know of a dealer going to a neighbor who had a neglected cherry orchard and asked permission to dig up the undergrowth and he sold those trees or brush for English cherry; of course they were sold away from home. This is no more than many others have experienced. I once heard a nurseryman ask the question, why so many times the orders were not filled out true to name from their nurseries, and he replied, that very often they had to send a Dutchman to get the trees and vines and they could not always read, but I wonder the Dutchman could not have read the labels in some instances, as these I cite, were all from different nurseries. But, these are things of the past, and now we go slow.

We are doing some experimental work, at home, in small fruits. Every fruit grower should experiment in a small way with different varieties of fruit. By doing this he may get a correct judgment, on the good and bad qualities of each variety, as well as to test the effect that climate, soil and location exert on them.

While agents and nurserymen are at fault in many instances, for some of the discouragements in horticulture, much blame rests with the buyers themselves. What is most needed to overcome these difficulties is better business sense, on the whole subject of fruit, and fruit growing and this especially among the farmers. Farmers of the right sort, are those with brains as well as muscle. They need to be better informed, and with past experience, experimental stations, horticultural conventions, and home horticultural societies, we have many opportunities for interchange of knowledge and experience, which, I think, will cover in a great measure the discouragements met with in the past.

At this writing we are finishing the marketing of Wealthy, Haas and McMahan's White, to be followed with Fameuse Utter and Wolf River, and later N. W. Greening, Walbridge, Avista and Eureka. The rains of the first half of September seem to be what the apple trees need, as they are looking vigorous and fruit buds show quite plainly. Be sure and send contributions on timely subjects—on orchards and small fruits—and do not fail to send some new subscribers. For balance of year to annual meeting for 25 cents.

The Wisconsin Horticulturist.

MRS. VIE H. CAMPBELL, EDITOR.

FREEDOM'S FLOWER—THE GOLDEN ROD.

Marian Douglas.

Let merry England proudly rear
Her blended roses bought so dear,
And Scotland bind her bonnet blue
With heath and harebell dipped in dew;
On favored Erin's crest be seen
The flower she loves of emerald green;
But ours, this new land of the west,
What emblem blossom suits it best?
No fragile nursling of the spring,
No dainty, garden-nurtured thing;
But clad in sunshine glad and strong,
Self-sown, upspringing from the sod,
And scattered wide and lasting long,
Is freedom's flower, the golden rod.
High on the mountain's crag it blooms;
The salt wind shakes its yellow plumes;
And with its countless flowers behold
The prairie gleams a sea of gold;
While lonely nook and sterile place
Grow lovely with its waving grace.
Free, free, we gather it at will,
And leave each roadside shining still!
And brave it blossoms, heeding not
Though storms beat wild, or suns burn hot.
Alike to all its flowers belong;
Through all the land it decks the sod;
It bids our hearts "Be glad, be strong;"
'Tis freedom's flower, the golden rod.

A PLEA FOR THE HORSE.

Ida E. Tilson.

After several years' experience with farm institutes and horticultural societies I remarked to a prominent Minnesota horticulturist, that I had never met a man interested in his branch of farming who did not bear evidence, by face, speech and manner, of considerable refinement and goodness, to which statement the Minnesota gentleman emphatically assented. Fruit and flowers are table dessert and adornment; their culture seems to occupy a similar relation to farming at large. There is all the nearness to Nature, all its healthfulness, without the grosser features connected with stock raising and selling.

Horticulturists, by reason of this refinement, do not, as a rule, abuse their animals. Perhaps, however, your columns will allow a short plea for the faithful horse, not because you need it, but, by your circulation in various families, to help a good cause.

A violent man certainly cannot have the best horses, since they are in constant anticipation and fear. Such confusion is fatal to intelligent action. I recall one man who continually yelled at his horses, till they did not seem to understand or mind "whoa" or anything else. Another man had a fine span run away. He was told to whip and race them till they were thoroughly tired, and that would break up the habit. He gave them a four-mile dash, with blows raining thickly, and one horse was thereby so injured as to become nearly worthless.

Should not thankfulness that we were born higher in the scale, and pity for these, our "poor relations," as animals have beautifully been called, lead us to mercy?

Why do we expect more patience, obedience and perfection from horses than from ourselves? How many are our own mistakes! They, at least, love more truly than we, because goodness wins them, irrespective of beauty or rank.

If a man worked so cheaply and subserviently, he would take the law to masters who abused him as the faithful horse is

often mistreated. I remember meeting a poor, thin, dejected farm-team which, instead of needed rest, was taking a family for a Sunday's outing, and, actually, were so weak and unsteady they wobbled from one side of the road to the other, leaving behind a crooked track that I shall always remember.

My father never owned but two teams in his forty years of farming, but then he is exceedingly fond of garden and fruit trees and, therefore, according to my original premise, kind-hearted. The first span were bought in Illinois, on his way west. The former owner said there were many sloughs on the new, unworked prairie road, but if there was any getting out, "Charlie," as one horse was named, would do it. Sure enough, my parents soon got in a slough, but, remembering those words, sat still, and let the faithful, experienced "Charlie" take his own safe course. When "Charlie" was retired from active life, he did, to the annoyance of our young team, often place himself in front or beside them, as they hauled a load; then he would, though not harnessed, go through all the motions of drawing. This second team were very sprightly. Neighbors advised father to own a whip for emergencies. His first whip was stolen, another a cow stepped on and broke. Then he gave up and for years managed those very horses by quietly speaking. Once they were caught in a narrow place by a railroad track. Seeing a train approaching, they pricked up their ears, and, without commands of any kind, dashed out to safety. One of them learned the sound of our dinner bell, after which, and only then, was he reluctant to work. He usually answered the bell with a "whinny."

Probably Agassiz is right, who said he saw no reason why animals should not have a hereafter, and certainly Talmage is, who said the man that does not love a good horse, ought to be kicked by a mule.

Till electricity becomes cheaper and more practical, horticulture and general farming will still largely depend for success upon the work of this faithful servant.

OUR NATIVE LILIES.

Walter Moyle.

In walking over the prairies of southern Wisconsin during the month of June or July, one is struck with the remarkable beauty of our native lilies. If by chance you come across a piece of virgin soil that has never felt the cruel thrust of the farmers' plow you may have the good luck to find the rarest and, I think, the loveliest of our native lilies, *Lilium Philadelphicum*. In a secluded spot on the farm I have had the pleasure of seeing these little upright bell-shaped lilies bloom for years. I have tried to transplant them to the garden but never succeeded in making them grow.

Lilium Canadense, another beautiful variety, much resembling *Philadelphicum* in growth, with the exception that the bell-shaped flowers instead of standing upright, droop gracefully on the stem. This variety, however, does very well under cultivation, although care should be taken to protect the bulbs well in the winter, as they will not stand much freezing or thawing. The writer gathered beautiful specimens the past season in the vicinity of Eagle Lake, Racine county, where they grew in an oak opening. This is too beautiful a lily to pass by with a glance.

But the wild lily, generally referred to when they are the subject of conversation, is *Lilium Superbum*, or more generally known as Turk's cap lily. These can be gathered in most any meadow by the armful, as we have done many times in our younger days. This is a remarkable and handsome lily and, if planted in the garden, will produce as many as 40 blossoms to a single stem. The past season, on the banks of some of the little gulches, everything was turned to a vivid scarlet by the abundance of the Turk's cap lily. Great are the beauties of our own native lilies.

PEERLESS APPLE.

Mrs. Editor Horticulturist:—I am glad to have my remarks corrected about the Peerless in orchard, as none of us can compare it to Duchess in orchard. While it is the best nursery

tree in 100 kinds, we hope it may prove valuable in the orchard.

Iowa Beauty is the only one in the nursery that outgrows the Peerless and that blights a little.

Geo. J. Kellogg.

WHY FRUIT MATURES SO EARLY THIS SEASON.

The question has been asked, Why apples ripen so early this season, and why they fall and decay so much in advance of their usual season, also if the drought of the past two seasons is in any way connected with this early maturity?

The earliness of the season has been noticeable since the opening of spring. Our first picking of strawberries was made this season on June 4; last season it was made June 11th, in 1894, June 12, and in 1893, June 20th. All fruits coming after the strawberry have matured in advance of their usual time—notably the grape, of which the Early Ohio and Green Mountain were in fair eating condition on our grounds as early as Aug. 13.

Potatoes were earlier than usual this season, and I think flowering plants grown from seed the past spring are also in advance of their normal season. I think, however, the grain harvest was less in advance of the normal season than the ripening of fruits.

Two hypotheses suggest themselves to explain this unusual precocity of plant growth. 1st, that the season, at least the early part of it, has been warmer than usual, and 2d, that the extreme dry weather of last season developed flower buds in perennial plants to a greater extent than usual.

Comparing the temperatures of the present season with those of the past, I find that April and May of 1896 appear to have been considerably warmer than the same months of 1895, but the reverse appears to be true of June and July as the following table will show.

How far the warmer temperature of April and May accounts for the earliness of crops as compared with last year it is impossible to say. The question is complicated by many unknown quantities. For example, a hard frost occurred in May,

	Maximum tempera- ture for month. Degrees.	NUMBER OF DAYS ON WHICH MAXIMUM TEMPERATURE REACHED—			
		60° or above.	70° or above.	80° or above.	90° or above.
April, 1895.....	80	16	6
April, 1896.....	81	19	10
May, 1895.....	88	23	17	6	..
May, 1896.....	83	31	25	10	..
June, 1895.....	90	30	30	19	3
June, 1896.....	88	30	27	14	..
July, 1895.....	92	31	31	23	3
July, 1896.....	92	31	30	19	1

1895, which materially checked vegetation, and doubtless retarded maturity. We do not know to which extent the maximum temperature influences growth, as compared to the average temperature. We have no means of knowing how long the maximum temperatures continued in either year. It is clearly impossible to answer the questions positively from any available data.

Careful studies at the observatory of Mountsouris in Paris, seem to show that a certain number of degrees of heat above the temperature at which growth is possible, are necessary to mature a crop, the number varying of course with different crops. But whether or not, in the case of perennials, the weather of the preceding season influences the period of maturity has not been made the subject of investigation, so far as I know. The fact that fruit blossoms sometimes appear in autumn would seem to be evidence in the affirmative.

E. S. Goff.

University of Wisconsin, Madison, Wis.

SOME OF THE UNPLEASANT THINGS IN OUR BUSINESS.

Some of the unpleasant things to the nurseryman and planter in the spring of 1896 was the loss in transplanting. The heaviest item was the loss on raspberry and strawberry plants. We anticipated there was a chance for injury; but the realization was enough to make the planter and grower sick at

heart, and the weaker grower halted and asked the question: "Shall I quit or go ahead in this business?"

Early last spring reports came from Ripon, Sparta, Oconomowoc, Janesville, Hanover, Fort Atkinson and many other points, "tips are black, 60 to 80 per cent. dead, orders to fill and not enough good plants to fill them with; a great disappointment to all concerned." The base of some of the black raspberries was green, although most of the fiber roots were black early in the season. The nurseryman thought these would grow; they did not do any such thing, but went back to mother earth.

The nurseryman received letters daily, stating he was a swindler, and in some cases threats of prosecution, for damage because raspberries and strawberries failed to grow. The hopes of those who were depending upon the raspberry and blackberry bushes as a source of revenue were blasted and they had to postpone hope one year.

The plants of the raspberries and a heavy percentage of the strawberries that looked prime and first class at digging time failed to grow. They apparently thought they would die with the rest of their brethren.

But what is the cause of all this loss and unpleasantness in this business?

So excessive has been the drouth for the last few years that even the forests and large shade trees are giving up the struggle for life and a large percentage are dying; when such is the case, what can we expect from small plants, bushes and trees? Last year it seemed to reach the climax. The soil was dry to the depth of six to eight feet. The food of the parent raspberry bush was cut off and support to the young plant ceased. The young plant had scarcely any other source of food supply, as its roots could not penetrate the soil to any extent. In the strawberry fields runners were formed, but the drouth would not let them root, and the tax was so great upon the parent plant in furnishing the supply for nearly all runners that they died in large numbers. The soil was so hard runners could not get hold of the ground and form heavy roots and several large crowns to be in shape to produce a heavy crop; conse-

quently there was not over one-fourth of a strawberry harvest this year.

A person digging cellars and wells, even at the present time, finds, after 12 to 18 inches of earth is removed, it is dry to the depth of six to eight feet. This with the fact that the soil in Wisconsin froze up dry last year (which is very destructive to tree and plant life) explains why we are losing our large and small trees, plants and vines, causing a loss of millions of dollars to the beauty and resources of our state. The past few years has not been the normal condition of Wisconsin. We are situated near the shore of one of the chain of large lakes, which insures us plenty of rainfall ordinarily.

Old grape vines, and particularly young hills, were injured by the freezing so dry of the soil last fall. Young evergreen trees did not transplant very successfully this year because their roots got so dry and hard the feeders were sealed to the life sustenance of the trees. Old evergreen trees in large numbers have failed to live this year from the same cause. Rose bushes in root were so injured many failed under transplanting. Many shade and ornamental trees were so injured as to disappoint the planter, and many nurserymen have been unjustly criticised because of it.

I have endeavored to speak of the things that have particularly suffered by the dry weather and have been a discomfort socially and financially to the nurseryman and planter. The question arises, What is the prospect for our future? We trust Wisconsin has come back to olden days. Rains this season are at least of almost weekly occurrences, and plant, tree and vine that has survived is in prime condition and bids fair to please this time planter and nurseryman. Trees, vines and plants of all sorts are making a good, healthy growth, and we trust will ripen up for winter and store away material enough to withstand changes in temperature and the severe cold, and give us very nice returns in fruit the coming year. Patrick Henry said in his master speech: "It is natural for man to indulge in the illusions of hope." I hope our future, as fruit growers, may not only be an "illusion," but a fine reality in coming seasons.

The relation of nurseryman to customer under the conditions

before stated, which no one could alter, and for which no one was to blame, ought to be adjusted satisfactorily to both parties "by one treating the other as he would be done by."

Most truly yours,

F. C. Edwards.

ROSES.

Geo. J. Kellogg.

Mrs. Editor:—For some unaccountable reason the hybrid roses have not given the usual August bloom this year. At this writing, the last of August, only General Jacqueminot, General Washington, La Reine, La France, Marshall P. Wilder, Blanche La Erfort, Antoine Mouton, Gloria de Margottin, Victor Verdiere, Coquette des Blanche and Alps Baroness Rothschilds, Parquette, Paul Neyron, Baron Halle, Sidonia and one white without name are in bud and blossom; the mildew and loss of foliage is the principal cause. As the best preventive we would recommend spraying the 1st of June and the 1st of July with Bordeaux mixture. Dry sulphur sprinkled on while the leaves are wet with dew, before the appearance of the mildew, also acts as a preventive.

The best of this list for general planting: General Jacqueminot, General Washington, La Reine, Marshall P. Wilder, Antoine Mouton, Paul Neyron, Coquette des Blanche, Baron Halle and Sidonia.

Best climbers: Michigan, Queen, Gem and Baltimore Belle.

DENDROLENE FOR FRUIT TREES—A WARNING.

About the middle of last September, a bulletin was issued by the New Jersey Experiment Station describing trials of a petroleum product called "Dendrolene" as a coating for the trunks of fruit and other trees, intended to keep out borers, to protect the trunks from mice and rabbits, to destroy bark lice and other scale insects, and to prevent the ascent into the tree of crawling insects.

The tests made during the single season of 1895 appeared

to be satisfactory, which induced the author of the bulletin above cited to make the following statement: "We are justified then in the conclusion that the material is innocuous to trees where it is placed upon the bark of the trunk, of the branches, and even of the twigs, provided that growing tissue or buds be not covered. This makes it absolutely safe to use for the purposes for which it can be most effectually employed."

A twenty pound package of "dendrolene" was sent to our Experiment Station last spring by the Bowker Fertilizer Co., of Boston, Mass., with the request that we give it a thorough trial. Realizing the vast importance to fruit growers of a material capable of doing what was claimed for this and, that as was alleged, would not injure the trees, I decided to make a thorough test of it in the young orchard of our Experiment Station, and so had it applied to the trunks of nearly one hundred trees. But alas, the result! Many of the trees to which it was applied are already dead, and the indications are that few, if any, of them will ever leave out again. The material has been absorbed by the bark and has penetrated the cambium, which it has in most cases, effectually destroyed.

At present, I can give no explanation of the different manner in which this material has acted in our orchard, and in the New Jersey orchards in which it was tried last season.

While the loss of our experimental trees is very greatly to be regretted, most people will feel that the damage might far better have taken place in our Station orchard, where the pecuniary loss will be less felt, and from which the facts can be more widely published than if it had occurred in a private orchard.

The serious outcome of this experiment should prove a most solemn warning to our Experiment Stations against the premature publishing of the results of their tests.

E. S. Goff.

Experiment Station, Madison, Wis.

Keep the lawn in good order until cold weather; do not neglect it in September any more than you would in June. It will richly repay you for all the care given it.

L. G. KELLOGG, RIPON, WIS.,

—General Agent for the celebrated—

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Address,

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