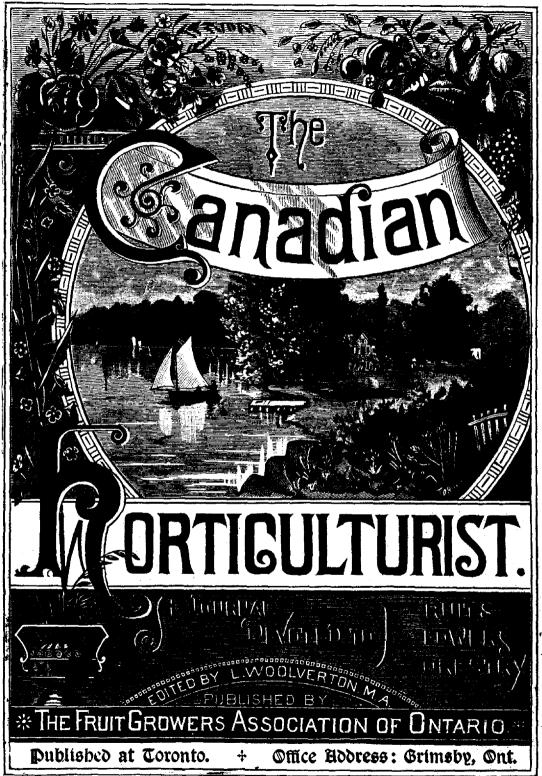
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HE Committee on New Fruits is very desirous to receive samples of seedling fruits thought to be worthy of dissemination; also of all fruits recently introduced. Gentlemen having any such are earnestly requested to assist the committee by sending, when ripe, six average specimens of all tree fruits with unbroken stems; of grapes, three bunches, with three leaves of the vine; and of small fruits, one pint of each sort. Send by express or mail, free of charge, to

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ELBERTA PEACH.

One of the largest and most esteemed of all yellow fleshed peaches; tree vigorous and productive; a valuable acquisition.

Canadian Horticulturist

Vol. XVII.

1894.

No. 9.

OKPREMSER.

THE ELBERTA PEACH.

O far as we know, the Elberta peach has not yet been fruited in Canada. It may, therefore, be classed with us among those novelties which may not be well adapted to our climate, or which may be over-praised by interested parties. But peach growers in Canada should be abreast of the times in their own line, and, since this variety is receiving so much attention from planters in the Southern and Middle States, where it is looked upon as the "coming

peach," it is important that we give it a thorough trial in Canadian peach orchards also. In the South it is being planted more largely than any other peach; in the State of Georgia there are reported to be orchards of 100,000 trees of this variety alone. The Report of the New Jersey Horticultural Society speaks highly of this peach for that State, and so does that of the New York State and the Illinois Societies. In the Report for 1893, p. 51, we read:

"Elberta is another good peach. It is yellow, with a fine red cheek—a beauty—good quality, hardy and productive. It contains about all the good points one could desire in a peach."

In the Report of the Western New York Horticultural Society for 1892, Mr. Hooker said, "The Elberta peach is attracting a good deal of attention. It is a handsome peach, but I am not sufficiently acquainted with it to speak about it. I have planted about 15,000. They ripen with the late Crawford. I think there is no trouble about ripening them in this section."

The Elberta is a seedling of Chinese Cling, but entirely free stone. It was shown at the World's Fair by the State of Illinois, and the fine specimens attracted considerable attention.

PROMINENT CANADIAN HORTICULTURISTS.

MR. W. W. HILLBORN.

Experimenter in Peaches and Strawberries at Leamington.

No the last number of this journal we gave some account of our visit to the Leamington Fruit Experiment grounds, and now we will give the experimenter himself an introduction to all our readers.

Though born at Sparta, Elgin County, in 1849, his early life was spent at Arkona, in the County of Lambton, then almost a wilderness. Here, while quite a boy, his interest in small fruits was awakened in gathering wild raspberries, and noting the evident difference in the fruit, especially

in the black caps. When old enough to experiment, he began by testing those wild black caps in the garden. His plan was to mark a large number of the best plants, while in fruit, and transplant these in autumn into rows along-side the Mammoth Cluster. He found that those wild varieties were not as hardy as that variety; nor did they succeed as well when transplanted to the garden, as they had done in the wild state.



Fig. 689.--MR. W. W. HILLBORN.

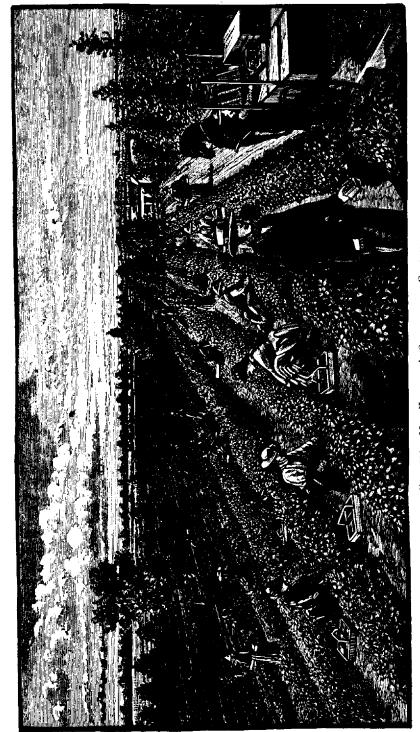


Fig. 690.--Mr. HILLBORN'S STRAWBERRY GROUNDS.

His next experiment was in the raising of seedling Black caps; at first he grew only a small patch, but afterwards extended this experimental plot to two acres. In this he was well rewarded by one plant which was selected from the rest, and which is now known among all fruit growers and nurserymen on the continent as "The Hillborn."

Since that time Mr. Hillborn's attention has been very closely directed to the strawberry, both experimentally and for profit. In all he has tested at various times nearly two hundred named varieties, besides a large number of seedlings.

The accompanying view of Mr. W. W. Hillborn's strawberry plantation at Arkona, was drawn in 1884, and appeared in the Farmer's Advocate at that time. The sketch will also fairly well represent his present experimental plot at Leamington.

On the establishment of the Dominion Experimental Farms, Mr. Hillborn was appointed Horticulturist, and began operations at the Central Experimental Farm, Ottawa, with a force of about sixty men. After two years of experience in this position, Mr. Hillborn resigned, and purchased a farm near Leamington, in the County of Essex; a farm consisting of about seventy acres, which he devoted largely to the peach, cherry and plum, selecting most of the good old varieties, and many of the newer kinds. Six acres were devoted to the strawberry, and besides, there were planted quite a collection of varieties of other small fruits. These conditions all combined to commend Mr. Hillborn to the Minister of Agriculture as the most suitable person in Southern Ontario to conduct experimental work with peaches and strawberries; and from his experiments we hope for speedy results, which will be of direct value to Canadian fruit growers.

A CONVENIENCE IN FRUIT GATHERING.

Designs for fruit ladders are legion, some good, some bad, and some indifferent. The quadruple stepladder here illustrated must be classed among

the good designs, for obvious reasons. Placed under low, branching trees, its use permits one to move about within reach of a large portion of the whole side of a tree, because of its four sides, about which one can freely step. Moreover, when not occupied as "standing ground," the top affords an excellent resting a place for the basket. It will be found exceedingly convenient for the home orchard, where one may desire to pick but a basket or two of fruit at a time, and wishes to make a selection of those in the best condition for picking. It should be made strong, but light, so as

Fig. 691. Quadruple Stepladder.

picking. It should be made strong, but light, so as to be readily moved about.—American Agriculturist.





OR the general good, I take the liberty of reporting my season's operations. I am a gooseberry grower exclusively, except for home use. I am persuaded that this is the only cure for glutted markets with fruit of inferior quality and all its train of consequent evils. I saw strawberries sold in Toronto at 4c., and it was all they were worth.

My gooseberries were sprayed with liver of sulphur before the leaves came out, and at intervals of two weeks till the fruit was out of danger, with the result that not a speck of mildew appeared upon either fruit or foliage of any variety—even Whitesmith was perfectly free. Some varieties are now attacked on the tips or new growth.

Downing averaged 5 quarts to the bush all around, and sold readily at 6c. Pearl, about the same as Downing in yield, but the bush is a more vigorous grower, indeed, in this respect it has no peer except Champion.

Champion gives promise of being an enormous yielder of large fruit, i.e., larger than Downing. No sign of mildew on bushes not sprayed.

Whitesmith sprayed gave fine, clean, large fruit.

Queen gave a few specimens on spring-planted bushes—large, yellow and good; very vigorous grower.

Autocrat did well as usual; fruit very large.

Chautauqua seems to be vigorous.

Triumph, vigorous.

Red Jacket, killed back to the ground last winter but came again from roots this spring vigorously.

Lancashire Lad bore a fine, large berry tinged with red, and of splendid quality.

Sprayed again to day with liver of sulphur for mildew on fall growth of foliage.

I may say I sprayed Downing early in the season with Bordeaux to prevent rust, with the intention of spraying at intervals all summer, but at second spraying my sprayer—a cheap knapsack one—gave out by the bursting of the bulb.

I learned two lessons from this experience; first, that these cheap machines have not force enough; second, that carrying 22 quarts of water on one's back is not funny by any means. I shall, therefore, have to find some other way of getting the liquid about.

A keg and wheelbarrow with a light force-pump seems to be about what is required where no horse is kept and not many large trees to be sprayed.

The two sprayings seems to have prevented rust to a large extent.

Another point I should like to mention. The foliage of my bushes were badly burned in the spring, and I hardly know what to blame for it. At first I

attributed it to the liver of sulphur, but afterwards sprayed a couple of bushe with this mixture made double strength without any bad effects. I, therefore, conclude that it resulted from one of two causes: either the lime of the Bordeaux mixture—made by the old formula, 6 lbs. blue stone with 4 lbs. lime, to 22 gallons of water—was not strong enough or not enough used, or the Bordeaux mixture and the liver of sulphur, which were both on the leaves at the same time, produced a new compound with the bad effects named.

Neither of the mixtures had its usual appearance on the foliage. A few minutes after spraying the liver of sulphur turns white like soap suds usually, but when the Bordeaux mixture is added it turns the liver of sulphur to a substance resembling iron rust; but I shall try it again on a few bushes and report.

Nantye, Ont.

STANLEY S. SPILLETT.

UNFERMENTED WINE.

Mr. E. Hulse not long since read a paper before the Victoria Vegetable Commission of Australia, regarding the use of unfermented grape juice, from which we make the following extract: The grapes are picked when they are fully ripened and the juice extracted and bottled as soon as possible afterwards. The bottles are filled brimful and placed up to their necks in vats of hot water within ten degrees of the boiling point. When the must is as hot as the water, the cork is forced into the bottle, expelling a portion of the liquid. If the least portion of air is left between the cork and the liquid, the oxygen contained in the air will set the saccharine matter in the wine in motion and fermentation will ensue. When the cork is forced into the bottle, the liquid is in a state of expansion from the heat. As it cools it contracts, leaving a vacancy between the cork and the liquid; but the vacancy must not be an atmospheric chamber. The cork must, of course, be thoroughly air-tight. If fermentation does set in. it may be driven off by reheating the wine. The bottles are then laid on their sides in a cool place and the organic foreign substances must be allowed to settle, so that the liquid may become clear. The settling may occupy whatever period the manufacturer chooses; sufficient time should, however, be given. The wine can lie six months or a year without damage. At the end of the settling period, it should again be filled into bottles, the sediment being left behind. These bottles must be brimful, and should again be set in vats of hot water, heated up to the same degree and corked in precisely the same manner as at first, using sealing wax to exclude the air. The wine is then left to cool in the ordinary way, and must be put away where the temperature is even and cool. It is now ready for use, and will keep just as long as it is kept free from contact with the atmosphere. This makes a very delightful beverage, which is entirely free from alcohol.

A SCALE INSECT ON OUR PLUM TREES.

AST June the writer found a new and peculiar scale insect on his plum trees. Soon after in the Garden and Forest there appeared the following illustrated article, by Prof. Beach, of Geneva, which evidently refers to the same insect. Our readers should be on their guard against it, for it is evidently invading the best plum orchards of the Niagara peninsula.

Prof. Beach says:—A scale insect which has hitherto been considered a comparatively rare species has recently attracted attention by its attacks on plum-trees in New York State. One man from Niagara County

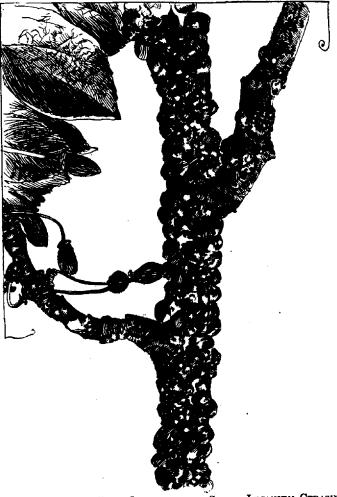


Fig. 692.—Branch of Plum Infested with Scale, Lecanium Cerasifex,

reports that some of his plum-trees have been killed by it, but no instances of this kind have yet come under my observation. When it occurs in such numbers as to nearly cover the bark, as shown in Fig. 692, there can be no doubt that it is capable of injuring the trees. This illustration is from a photograph of an infested branch of the Bradshaw plum. On the twig at the right are seen scars showing where some of the scales have been removed. The actual length and width of a full-grown scale is indicated by the cross lines in the illustration. The dimensions are usually about five millimeters by four—that is to say, about seven thirty-seconds by five thirty-seconds of an inch.

At the present writing, June 20th, the scales are filled with a whitish powder, which, examined with a lens, proves to be composed of eggs. The young lice which are produced from the eggs in the spring had already issued from the old scales this season about May 10th, when my attention was first called to the insect. The branches were then covered with a sticky substance like honey-dew, evidently secreted by the young insects. On leaving the old scale they crawl over the branches till, finding a convenient location, they attach themselves to the bark. They seem to prefer a location on the under side of the limbs. At first they are whitish, or nearly transparent, but gradually assume the dark reddish brown color of the mature insect.

Mr. L. O. Howard, the United States Entomologist, to whom specimens were submitted for identification, states that it is a somewhat rare species known as Lecanium cerasifex. He advocates spraying with dilute kerosene emulsion when the young insects first appear in the spring. The scales are soft and easily loosened from their attachment, and might readily be brushed or scraped from the larger branches.

Thus far I have seen the insect in Niagara, Monroe and Ontario Counties, indicating that it is quite widely distributed in Western New York. So far as I have observed, plums are most seriously attacked, though the insect has also been found on apple, pear, maple and cissus, showing that it has a wide range of host plants.

Pear leaf blister mite.—Prof. Sleugerland, of Cornell University, has discovered a simple remedy for this mite, in the application of kerosene emulsion. In September, 1892, 16 trees were selected and labeled, and in March, 1893, were sprayed with herosene emulsion diluted with from 3 to 10 parts of water, 2 trees being left as checks. On July 10, the 2 trees which had not been sprayed were badly infested. The results on the others showed that the emulsion was effective when diluted with not more than 8 parts of water. The author concludes that the pear leaf blister can be nearly or entirely exterminated in a badly infested orchard by a single thorough spraying of the trees in winter with kerosene emulsion diluted with from 5 to 7 parts of water.

REPORT ON NEW AND OLD VARIETIES OF STRAW-BERRIES FOR 1894.



S is my custom, after the bearing season is over, I wish to let you know how the strawberry has done here. They came through the winter in good condition; the spring opened warm, and plants grew rapidly, then came a spell of rain and very cold, which seemed to stop their growth. The frost in May did serious damage to the crop of strawberries here, destroying fully one-half. The early varieties suffered most; medium and late did fairly well. Of the

largest berries I ever had, the "Weolverton" excelled itself. We had plenty of them that sixteen berries would fill a box; they were the largest berries ever brought to St. Marys, except No. 44.

Was it the repeated cold rains during their blooming for a certain period, or the late frost, or both of them? One thing is certain that the crop, with a few exceptions in variety, did not give the amount of fruit we expected from its appearance early in the season.

I am still of the opinion that the difference in time of blooming at times makes the main difference in the crop.

Notice what the R. N. Yorker says:— "A berry is no longer valuable because of its earliness alone. It must have size and quality." It also says:— "Brandywine is the best late berry we know of, good shape, good quality, firm and productive."

Mr. Crawford says his experience with the Brandywine is that it is one of the best in all respects that he has seen, "It has no weak points. The plant is large, healthy, vigorous and productive; the blossom perfect, fruit large, bright red, firm and good.

The originator of the Brandywine picked this year 200 bushels of berries from Brandywine plants on one acre of ordinary land, and sold them in Philadelphia for 17c. a box.

Of the new varieties sent me for testing in 1893, and fruiting this year, a report would be no criterion as to their value owing to this very unfavorable season. From C. C. Stone, No. 1, Gertrude and Plow City, are very promising. His No. 4 and Governor Fifer need further testing.

Two varieties from Edward T. Ingram—Glen Mary and Brandywine—fruited once, both promising. Brandywine especially, although all the bloom being killed, its vitality enabled it to bloom again and give a fair crop of large, handsome berries. It is a late berry and staminate.

Thompson's Rio, 64 and 88 did well considering the season.

From M. Crawford—His Margaret Staples and Annie Laurie are large in berry, with a healthy plant.

From S. H. Warren, Mass.—Sam, a healthy plant and free runner.

From G. Beede, N. H.—Fremont and Kentzill.

From J. Lippincott, N. J.—Isabella, a good plant maker.

Tennessee Prolific, Columbia, Laxton's Noble, Mary, Henry Ward Beecher, Splendid, Bisell, with the best of the old varieties I still retain, having discarded most of the varieties giving small berries.

To me it seems a useless task to repeat the reports of previous years of well known and approved varieties.

Those that have done fairly well this season here are Woolverton, Saunders, Ivanhoe, Robinson, Smith, Shuster's Gem, Nehring's Gem, Putnam, Auburn, Gillespie, Greenville, Bubach No. 5, Mrs. Cleveland, Eureka, Judsonia.

Commenced picking June 13th, finished July 11th.

Granton, July 27th, 1894.

JOHN LITTLE.

GRAPES IN JANUARY.

Without special precautions beyond storage in a cool cellar, I find that I can have the following grapes for eating in midwinter; Pocklington, Diana, Herbert, Duchess, Amber, Iowa, Jefferson, Lady Washington, Vergennes, Goethe, Isabella, Catawba, Niagara, Hayes, Diamond, Gærtner and Worden. Concords have kept well with me as late as the end of December. The grapes were carefully handled in picking, placed in new sweet baskets, about half-filled, and set at once in bins in a cool, dry cellar. At the approach of cold weather I aim not so much to have the room cold as to have an unvarying temperature for the grapes, and a piece of thick brown paper is tied close over each basket. The quality of the Worden is unsurpassed, and this variety supplies a delicious winter grape up to mid-December. Duchess, if picked before cracking, keeps well, and I had Brighton in good condition in December, when it dries into a very good raisin.

There are enough good grapes which ripen in August, September and October. The need is for long-keepers. Of those we now have, Amber and Diana are excellent; but Amber is one of the class of very tart grapes, like Greins' Golden, and is relished by few. Goethe and Iowa should be ranked as November and December grapes, and there is nothing to excel them. Herbert is another satisfactory grape, of excellent quality and a fine keeper. Vergennes, although keeping well, lacks in quality, and is at no season a grape of much value. It is a curious fact that some of the thin-skinned grapes are among the best keepers. Goethe, Iowa and Worden are thin-skinned, while Diana, Herbert and Vergennes are much thicker.—Garden and Forest.

THE SANITARY RESULTS OF A FRUIT DIET.

HERE has been much said and written on the health-preserving results of a free use of fruit as a diet, that it would seem as though there was nothing more of interest to advance on that topic. Yet it may be pardonable to throw out some thoughts at the risk of repeating what has been said, and that with a hope that some at least might be profited by the effort. As a rule we need not expect the regular practising M.D.'s, to recommend preventives to disease, and set forth

precautions to preserve health, when it puts money in their pockets to keep people comfortably sick; and if there is anything set forth by which you can "save a doctor's bill," by any one, if it must come from some one outside of the medical craft, if we may make some allowance for the honorable exceptions. The great majority of the "ills that flesh is heir to," arise from disordered stomachs! Indigestion is the great barrier to the happiness and welfare of a large proportion of the human race, especially that portion distinguished for "masterly inactivity," or those who are averse to manual labor. The out-of-door workingman is seldom dyspeptic, but these of sedentary habits, and who are closely confined indoors, must suffer more or less with inaction of the stomach and bowels, unless their diet is made up of fruit of some kind. The cooling effects of its use in the blood, and its stimulating power in the stomach, bowels and kidneys, render it almost indispensable in the warm months of the year, and it also comes in as a boon adjunct in the winter season, to add zest and interest to a well-ordered repast. Who has not proved the profitable and invigorating results of eating freely of baked apples? They are real M.D. starvers, as also are strawberries, sugar and cream, raspberries and ditto, and other fruits As there is a marked sympathy between a well-ordered stomach in their season. and a clear acting brain, it becomes a matter of great concern, in the management of all institutions where level headedness comes into play, that a healthy sympathy be maintained, and if the larger proportion of the diet is required to be fruit to preserve that desirable condition, why, of course make use of it, provided you can get it at a fair price. Apples at 50c. per bushel, strawberries at 8c. per quart, and raspberries at 10c., are a cheaper diet than all bread at 7c. per loaf, meat at 10c. per pound, and other things in proportion, when we add the ennui and doctor's bills to the other part of our estimate. Happiness in this world after all, is made up of keeping the physical, intellectual and spiritual organisms of our being, rightly balanced (of course including a well-balanced debit and credit account), and if this balance so much includes the physical end of our enjoyment, it certainly behooves us to preserve that, by a free use of fruit.

A habit of mental activity by reading and conversation, will keep our intellectual machinery in good repair, while meditation, Scripture reading and daily habit of secret prayer, will add much to a preservation of our spiritual status; but with all this, if our brains are clogged with venus from a sluggish

circulation, in consequence of infirmities arising from a dyspeptic stomach, and constipated bowels, why, of course, the only remedy is to stop eating at all, or, eat plenty of fruit! Although this strain of putting things may savor of the humorous, yet there is a deeply serious aspect to the case, when we reflect on what momentous conditions are dependent upon apparently trivial and commonplace practices.

The heavenly and the earthly, the spiritual and the physical, the thoughtful and material, are all so inseparably connected, that we cannot, in our highest flights of meditation and exaltation, lose sight of the need of keeping the breadand-butter side of existence in good tone as a necessary adjunct to our daily meals. The fruit-growing fraternity then, if not entitled to the initials M.D., are surely claimants, and rightly so, to the title of P.B., as public benefactors. And although not counted on the high social plane of the *learned professions*, still that is no reason why we should not be, and while

"Along the cool sequestered vale of life, We keep the even tenor of our way,"

we can rejoice in the happy inward consolation, that though we are not basking in the full blaze of public admiration, we fill a little niche of usefulness that even more pretentious organizations might be proud of. Further, the deponent saith not.

L. FOOTE.

The Bordeaux Mixture was applied by the Kentucky Experiment Station with the following result: Throughout the summer the trees to which the mixture was applied were more thrifty in appearance, owing to the more healthy green and better general state of the foliage. In every case the leaves began to fall sooner from untreated than from sprayed trees. The proportion of fruit rotting to that not rotting was in every case lessened. Spraying with the Bordeaux mixture will save from rotting 7 to 31% of the whole number of The average increase in crop due to spraying was 97 lbs. of fruit per This increase was due to several causes, among which may be mentioned the saving from rot and the prevention of scab on both foliage and fruit, thus increasing the size of the fruit. To test the relative keeping qualities of sprayed and unsprayed fruit, 100 apples free from scab were selected from those that had been sprayed, and an equal number of scabby apples from those that were not sprayed. The apples were stored Oct. 30, and examined at frequent intervals the rotten fruit being counted and removed from each tree. It was found at the end of two weeks that there were nearly three times as many rotten apples among the unsprayed as among the sprayed. There was somewhat less difference between the two lots later in the season, but the sprayed kept better than the unsprayed, and kept longer. In every case some of the sprayed were sound when all of the unsprayed had rotted.

DWARF PEARS.

SIR,-Please give me some hints on Dwarf Pear growing.

H. O. WELLBURN, Duncan, B.C.



ERTAIN varieties of pears seem to succeed best on quince stock, for instance, Louise, Duchess, Easter Beurre, Beurre Diel, Glout Morceau and Vicar. Such trees are known as dwarfs, because they never attain the size of trees grafted on pear stock, and are kept closely pruned into bush form. While twenty feet is a suitable distance apart for standard pears, dwarfs may be planted about

twelve feet apart. The soil should be well drained, and not too heavy, as the quince root, on which they are grafted, will not endure wet soil, but will soon succumb when placed in such conditions, especially when subjected to the winter's cold. Good cultivation and enrichment of the soil must never be neglected to attain the best results; but perhaps one of the most important points to be studied is the art of pruning.

The Dwarf pear needs especial care in this respect. Every spring about two thirds of the young growth of the previous year should be cut off, and as



FIG. 692.—A WELL PRUNED DWARF PEAR. (Engraved from "The Garden.")

much more as may be necessary to keep the tree in that pyramidal or conical form usually considered the proper shape for a dwarf. In addition to this a system of pinching back the young growth in summer time, after it has grown a few inches, and thus causing fruit spurs to be formed, which otherwise might have produced leaves only.

As to the extent of the spring pruning, Mr. Thomas advises that dwarf pears should not be allowed to exceed ten or twelve feet in height, and six or seven feet in diameter at the base.

THE UNITED STATES FRUIT TARIFF.



RUIT growers in Canada will watch with some interest the changes in the United States tariff, so far as it affects their business. While, as a rule, our apples go to the British markets, or to the North-West, there are seasons when our best apple market is Chicago, and when even Philadelphia calls for Canadian apples-Especially is the Canadian Northern Spy and Montreal Fameuse

wanted in these markets, but the duty of 25 cents a bushel has been almost prohibition. This is now reduced to 20 per cent., which, considering the low value of apples, will open these markets to us. The following shows the tariff changes, so far as fruit is affected:—

FRUITS AND NUTS.	Old rate.	New rate:
Apples, green or ripe, per bushel. Dried, desicated, evaporated, or prepared in any manner, per pound. Dates, green, ripe, or dried. Preserved in sugar Grapes, per barrel of 3 cubic feet, or part thereof. Plums and prunes, per pound. Comfits, sweetmeats and fruits preserved in sugar, syrup or molasses, n. e. s., prepared, desicated cocoanut or copra and jellies of all kinds Fruits preserved in their own juices. Orange peel and lemon peel, preserved or candied, per pound. Almonds, not shelled, per pound. Clear almonds, shelled, per pound. Filberts and walnuts of all kinds, not shelled, per pound. Shelled, per pound 6 Peanuts, or ground beans, unshelled, per pound. 1	25c. 2c. Free 35 p c 60c 2c 35 p c 60c 2c c c c c c c	20 p c 20 p c 20 p c 20 p c 20 p c 1½c 30 p c 30 p c 30 p c 20 p c 20 p c 20 p c 20 p c 20 p c
Nuts of all kinds, shelled or unshelled, n. e. s., per pound	2	20 ре

Prunus Simoni is just now ripening its fruit at Grimsby (August 11) A prettier sight could not be desired than one of these trees variegated with its fruit in various stages of ripeness from green to yellow and red, and dark red. Possibly it might command a ready sale in the markets on account of its beauty; but alas, for eating, it is worthless, and no one would buy a second basket unless for marmalade. Some were canned with considerable sugar, but were not much esteemed.

🛪 Our Experiment Stations. ⊱

NOTES ON STRAWBERRIES.

HE season of 1894 has not been favorable for the strawberry in this locality. The early part of the season was favorable to their growth. Just as the fruit began to ripen dry weather set in, and continued until the whole crop was gathered. The continued heat and drought shortened up the crop fully one-half. Our first ripe berries were Michell's Early, and were gathered May 31st. This variety does not produce enough fruit to make it a profitable sort. Following

soon was Beder Wood; this is productive, fruit above medium size, and taking all in all, it is perhaps the best first early berry. There is no first early kind that I have seen that quite fills the bill. Crescent is not quite so early as the above, but still continues to be the most profitable early sort, especially on strong soil. On a light, sandy soil it is not always satisfactory. For a market not too distant, Bubach has succeeded best with me. The fruit is very large, and such a bright red that it will bring a good price in any market. In a wet season it is not firm enough to ship to a distant market. This season it was shipped 200 miles and brought 13c. wholesale for the first picking. It ripens mid-season.

Gov. Hoard is about the earliest large berry, of good quality, and well worthy of very general trial. The plant is quite a strong grower, the fruit is large, dark bright red, quite firm, and better in quality than most varieties. Saunders, Woolverton and Lovett are all promising for market and home use, and should be more generally tested throughout the country. Williams is a new Canadian berry that yields a large crop of large fruit; it, however, has a green tip which is somewhat against it, although the fruit being large and of a bright dark red color, and produced in abundance, will make it a profitable late Wilson is still grown more largely than any other sort in this market variety. locality for market, and will, no doubt, continue to be for some time to come on account of its good shipping qualities. Parker Earle is one of the best late sorts for market or the amateur. It forms very large plants and but few runners; it is, therefore, well adapted to garden culture. It requires a moist soil, as it sets such a large quantity of fruit that it cannot bring it to maturity without plenty of moisture. Middlefield is a fine large berry of very fine quality, of attractive bright red color; plant very healthy and free from rust and quite productive; better for the amateur than for market. Warfield is a failure here, although it succeeds in many localities. The following table shows a description of twelve varieties of strawberries grown at this station.

	SEASON.	E.—Early. M.—Medium. L.—Late.		REMARKS.	For distant market.	ror near market. For distant market							
		F.—Firm. L.—Soft. M.—Medium.	Valuk. Scale 1.10	Market.	2.~	20 FG		00 00		_		95	
	FI.ESH.	F.—Firm. L.—Soft. M.—Medin	VAI	Dessert.	œ	∞ .	œ ·	ගෙය	2ء			00 6	
	F			еваоп.	M to L	Ħ	퍼 ,	교원	¥¥ 	د ر	7 03 14	×	ME SS
ω̈́		L.—Light. R.—Red. S.—Scarlet.		Flavor. (SeeTnomas.)	Medium.	Medium.	Medium.	Good.	Medium.	Medium.	M. to goo M to L	M. to go d	Good. M to L
A	COLOR.		٠, ا	Flesh.	M	×	×	¥κ	두	ا استار ا	N to F	۳ ۽	M to F
3	ÇŌ	Bricht. Crimsol	BERRY	Tenscity to Calyx.	<u> </u>		:	: :	•	: :	:	:	\mathbb{T}
员		B.—Briyht. C.—Crimson. D.—Dark.	<u> </u>	Color.	l H	LR	ος ——	S C	o a	2 2 1	U X	a	3 %
STRAWBERRIES		BBroad. LLong. CConical. 0Ovate. DDepressed. RRound. LIrregular.		form.	m	æ	ت ت	R C and D	2	0	C and D	ت د د	3 B. B. B
1	FORM.	그 0 kg	ļ	.azi2		×	×	ZZ	Z .	Z	1		
3	Ē	ad. ical. resse gular	3 .	Productiveness.	2	00	9	6.6	· 00 °	9 2	œ	4. 80	o_ ∞_
H		BBroad. CConical. DDepresse IIrregular	1	Vigor. Scale I-10.	80	æ	2	r- &	t- 0	10 00	œ	9	9-10
้่ง	SIZE.	S.—Small, B.—M.—Medium, C.— L.—Large, D.—	PLANT.	Fruit stalk.	Medium	Rather long.	Medium	Rather long.	Medium	Medium	Medium	Medium	Rather short
		ve foliage S.—y it. L.—	PL	Foliage. Healthy or liable to rust.	Healthy Medium	Some rust Rather long.	Nearly healthy Medium Some rust.	mostly healthy	Nearly healthy	Healthy Medium Nearly healthy Tall	Quite healthy. Medium	Sometimes rusts badly. Medium	Williams B Some rust Rather thort 9-10 8-10 Woolverton B Not much rust Medium
	LALE	od be		ex. Drigin.		;	: a: m	: .		: : a. ce		:	:: :::::::::::::::::::::::::::::::::::
	FRUIT STALK	Long or Short; above foliage or concealed by it.		VARIETY.	Bubach	Beder Wood B.	Crescent P.	Captania anche.	Lovett B	Middleffeld	Saunders	Wilson	Williams

W. W. HILBORN,

Leamington Experiment Station, Aug. 2nd, 1894.

CRAIGHURST EXPERIMENT STATION VISITED.



N Monday, the 23rd of July, Prof. Hutt, of the Ontario Agricultural College, Official Visitor for the Dept. of Agriculture, and the writer, who is Sec. of the Board of Control of the Ont. Experiment Stations, visited Mr. G. C. Caston, the experimenter in apples and small fruits at Craighurst, twelve miles north-west of Barrie, in the County of Simcoe. It was a dusty ride along that sandy old Government road to Penetanguishene, but the beautiful glimpses of distant hills and water in the direction of Collingwood seemed to brighten the way and make it a delightful journey. Mr. Caston received us kindly and entertained us most hospit-

ably, for Mrs. Caston is a lady of distinguished parentage, and understands the art of treating her visitors well.

Mr. Caston cultivates about fifty acres, besides having a bush of maple trees thirty-five acres in extent, from which he receives quite a revenue in maple syrup. He taps about 500 trees, and this season he made about 200 gallons.

Mr. Caston's apple orchard of five or six acres evidences the best of care and cultivation, but the climate is severe at this distance from the lake, and many varieties, quite hardy at Collingwood, fail utterly here. One feature of his place was especially notable, viz., a high board fence, about 14 feet high, all along the north-west side of his apple orchard, forming an admirable windbreak.

The most productive variety which grows in Mr. Caston's orchard is the Duchess; the trees were just loaded to the ground, and the fruit was clear and bright. Had Mr. Caston planted all his orchard of this one variety, there is no doubt he would have made far more money out of it; but his fondness for experimenting led him to planting many other varieties, and in some cases to top graft quite a number of kinds upon a single tree.

Mr. Caston has about 75 varieties of Russian apples under test, together with 30 or 40 varieties of strawberries, and numerous other plants, and to this collection yearly additions will be made by the Board of Control, in order to make this station as efficient as possible.

THE FALL WEB-WORM is just now (Aug. 9th) quite injurious to the foliage of the raspberries. This attacks nearly all our fruit trees and plants, but is easily subdued by cutting off the twigs or branches affected and burning them.

A THIEF REWARDED.—A thief in the act of breaking into a safe was greatly astonished on looking up to see a gentleman quietly watching his proceedings. He tried to escape, but the gentleman stopped him.

[&]quot;Go on, my friend" he said. "I am greatly interested in your work."

[&]quot;How is that?" inquired the astonished thief.

[&]quot;Because I have lost the key to this safe. If you can open it, you shall be well rewarded for your trouble."—Arlequin.

* New or Little Known Fruits. *

THE MERCER CHERRY.



If the report for the U. S. Pomologist for 1892, Mr. Van Deman's special attention is called to several new cherries from Oregon, among which was the Byng, a very large, sweet, black cherry, a seedling of Black Republican; also, one from New Jersey, called the Mercer, introduced by Mr. Black, of Highstown. This latter, the Mercer, is thus described by Prof. Van Deman: A medium

size, irregular, heart-shaped cherry; cavity round, wide, irregular; stem medium length, rather slender; surface irregular, angular, glossy, bright red, with darker mottling and blotches; dots minute, depressed; skin rather thin, moderately tough; flesh pinkish, meaty; flavor sub-acid, lively, rich; quality very good Season in New Jersey, middle of June. Fruit in clusters; very productive; vigorous grower; original tree said to yield from 10 to 18 bushels per year.

The introducers say in their catalogue that this cherry is grown from a Mazzard pit, and surpasses in size the Black Tartarian. We will have this cherry tested at our Ontario Experimental Stations and report in due time upon its adaptability to this Province.

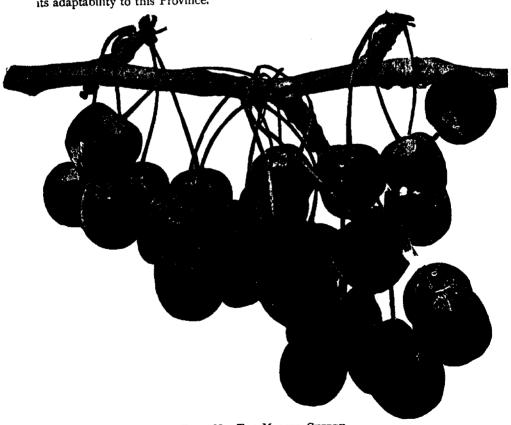


FIG. 693 .- THE MERCER CHERRY.

* Our Fruit Table. *

THE JAPANESE WINEBERRY.

SIR,—I send you by this mail two bunches of the Japanese Wineberry. The bush from which they were taken is four years old, and has only two canes, on one of which there are forty-nine bunches of fruit, the majority being as good as the samples sent you. They have had no special care, except ordinary cultivation and a dressing of barn-yard manure. In the fall we lay down the canes and cover them with straw, for winter protection. They are very attractive, being universally admired, and in demand for planting on the lawn for ornament.

H. L. BRYANT, Mohawk.

This is an interesting novelty. The branches sent us Aug. 2nd carried about fifty berries each, all very attractive looking. It has, no doubt, been over lauded by advertisers, and the plants have been sold at very high prices. It will probably have little value as a market berry, but for dessert purposes it may become popular, because of the peculiarly pleasant flavor of the fruit. Prof. Georgeson, late of the Imperial College at Tokio, Japan, collected the seed in that country, and sent it home to the United States. The canes are large, and stout, covered with purplish red hairs; the leaves are large, tough, dark green above, and very grey beneath. Each berry is at first enclosed in a mossy calyx, which turn back as the fruit matures. Berries are of medium size compared with the ordinary raspberry, of a pretty bright crimson color; flavor sprightly, mild acid.

The reports which we have received concerning this Wineberry are conflicting, so that we are not prepared to state anything definite concerning it.

An experiment station in Minnesota reports having tested it, and that it is unproductive; that the berries are small, and sour, and that it is hardy with protection.

Bulletin 88, Michigan, says the plant increases too rapidly by suckers to be very desirable for the lawn. The flowers are large and showy; but the fruit is of no practical value.

These statements seem hardly applicable in every respect to the samples sent us by Mr. Bryant, for the fruit was of medium size, good flavor, and quite abundant.

This plant will be planted for trial at the Ontario Experiment stations next spring, and will be fully reported on thereafter.

Blighted Apple Trunk—Mr. J. H. McGregor, Galt, writes that a Duchess of Oldenburg has its bark dead about a foot up from the ground, as if it had been scalded. Since the spring it has spread further up; he also sends a sample of the bark. Such blighting of the apple trunk often occurs, and arises from so many causes that without seeing the tree and knowing all the conditions one cannot reply. It may be the effect of the borer, of sun-scald, of wet, or of injury from frost, or whiffletrees.

The Burkholder Peach.—Mr. J. C. Burkholder sends us (August 24) four samples of a pretty seedling peach originating with him, which ripens about the 22nd instant. Coming in after Hales, and just before Mountain Rose which is just now (24th) beginning to ripen, this peach is worthy of notice. The fruit



Fig. 694.—Japanese Wineberry.

is of medium size, 13/4 inches long by 2 broad, roundish; skin cream, nearly covered with deep red; down heavy; cavity narrow and deep, suture distinct; flesh white, melting, juicy, good flavor; clings to pit, but not so much as Alexander.

Apricots.—Mr. J. F. Rathburn, of Drumbo, sends us some fine samples of apricots, rather small in size, but of excellent quality and high flavor. The tree is hardy and productive. It resembles the Breda.

Lillian Augusta Plum. — Mr. R. Trotter, of Owen Sound, sends us (August 24) four samples of a fine large seedling plum. It is 2 inches long by 13/4 broad; skin yellow, with evident bloom; cavity shallow; suture distinct; stem 3/4 inch long; flesh yellow, juicy; pit large, cling; quality good.

Mr. Trotter says he was led to allow it to grow from the appearance of the leaf. Tree healthy, and productive.

Fruit for Name.—Dr. Harkness, of Lancaster, sends a summer apple (August 16) of somewhat the style of Colvert, but smaller. It first ripens toward end of July, and grew on a very old tree. Summer apples are so well furnished in Yellow Transparent, Red Astrachan and Duchess, that there is little place for this apple, whether seedling, or a named variety. Mr. Craig thinks it is the "White Astrachan."

Mr. A. Brooks, of Clarkson, sends an apple resembling the "Strawberry of Montreal," but which we cannot identify. It does not appear to be of much value, in competition with Duchess and Gravenstein.

Mr. J. A. Patterson, Hamilton, sends us three samples of fine yellow plums for name. They are the Washington, one of the most delicious varieties of its seasons.



Re-Forestation in France.—It is a common thought with us, that in the Old World, governments do everything,—and what these governments do for forestry is a common theme with our forest associations. But individuals and societies work in forestry also. The forests of Solagne, that were destroyed by the severe winter of 1879–80, have been replaced through the efforts of the Agricultural Society of France. In five years many thousands of acres have been re-planted. Pinus maritima is the kind selected for the work.

While it is quite generally conceded that posts set in the ground upside down will last much longer than in the reverse position, the why and wherefore of it has been a mystery with the general public. The reason is this: The pores of the wood are so constructed as to draw and push the moisture upwards from the roots to the leaves and branches of the tree, and this same principle of action causes the constant drying out of a post set reversely to its natural growth, while if set with bottom down the pores will constantly draw the moisture upwards, thus causing its premature decay.



🛪 The Garden and Lawn. ⊱

SUMMER CARE OF THE CALLA.

OW to care for the Calla during the summer, in the most satisfactory way, seems to be a question on which many growers of it differ. Some keep it growing all through the year, and because it does comparatively well with this treatment, they argue that the proper way is to keep it growing. I do not agree with them, however, because I do not be-

lieve any plant ought to be kept growing actively all the time. There should be a period of rest. My plan is to put the pots containing the plants out of doors in June, turn them on their sides under a tree, or in some partially sheltered place, and there I leave them until September, without any attention whatever. After a short time, the foliage turns yellow, and very soon it drops off, because the soil in the pot is becoming dry. In two weeks after putting the pot out, you would not suspect there was a live root in the soil it contains. But the live root is there, all prepared. Of course the soil absorbs more or less moisture from the air, but not enough, in an ordinary season, to keep it from getting as dry as dust. One would naturally think the root would wither away, but it doe not. Although the soil about it seems robbed of all moisture, the root holds enough to retain plumpness.

In September I prepare a fresh compost of mucky earth, some sharp sand, and a little loam. If the roots are strong, good-sized ones, I use an eight-inch pot to plant them in. Good drainage must be provided, for, while the plant likes a great deal of moisture at its roots while growing, it does not take kindly to stagnant water about them. Keep the soil moist, or wet, by frequent applications of water, rather than by confining it to the pot by imperfect drainage. An imperfectly drained soil soon becomes sour and heavy, and this induces disease; and an unhealthy Calla seldom gives flowers. Plant the roots so that the crown will be two or three inches under the soil, water well, and in a short time young leaves will appear. Then give more water, but do not keep the soil very moist until strong growth has begun. If there are two or three good, strong roots, do not separate them, but give a larger pot, if necessary. I prefer to grow two or three roots of blooming size in the same pot, because the quantity of foliage will be much greater than when but one root is used to a pot, and there will be as many again flowers. If given proper care, a pot containing two strong roots ought to have at least one flower open and a bud showing nearly all of the time from January to April.-American Agriculturist.

Forestry.

FORMATION OF THE RINGS OF WOOD IN TREES.



HE many differences of opinion that even eminent men are presumed to hold in regard to the character of the so-called annual rings of trees, would be readily reconciled if a little thought were given to the manner in which wood is formed as the trunk is enlarged. This is accomplished by the birth of new cells, which proceed laterally from the old ones. The new course of cells take their place around the mother cells, and form a thin layer over

them, just as if a sheet of writing paper might be wrapped around another. These in a few days again become mother cells, and another course is produced. This continues during the short time devoted to growth, perhaps a dozen times, and the mass of new wood known as the new annual layer, is really made up of a dozen fine layers so small that the concentric lines are only visible by means of a powerful microscope. Now the size of these cells depends on the amount of material at command. The original mother cell that starts the annual growth, has had the advantage of the best opportunities for stored nutrition, every successive addition is weaker and weaker, until the last growths of the season are very small. It is because they are so small and packed close together that we can readily see where they end, and thus detect the extent of the annual layer Now a tree may be in a position to have command over a even in old trees. superior stock of nutrition, and the cells are in a condition to avail themselves of the advantages, especially if the cells are naturally of a large size, as they are In the European silver linden, for instance, the cells are onefourth larger than they are in the common American linden; and in this and similar trees, a number of light rings can usually be traced in the annual incre-The same can often be seen in vigorous specimens of the cottonwood. But plainly as these lines may be seen, the experienced investigator can rarely be mistaken on the last line made during the growing season, and is able to tell how many years the tree has been growing on the spot where it stands. There is nothing more certain than that in the hand of an expert the age of a tree can be determined by its annual growths. -- Gardener's Monthly.

ZINNIA HAAGENA.

I was only introduced to Zinnia Haagena this year, but am sorry I didn't make its acquaintance sooner, as it is a most desirable variety, all yellow, and much better for boquet use than the ordinary kinds. In the present craze for Anthemes Coronana fl. pl. is yellow flowers, everybody ought to have it. another yellow flower I think a great deal of. It is a very free-growing plant, abundant bloomer, and lemon yellow. Zinnia Haagena is orange.

Cornwall, Ont.

TABULAR STATEMENT IN REFERENCE TO THE REARING OF NURSERY STOCK.

KINDS OF TREES.	Time of the year when Seeds are ripe.	Mode of Preserving Seeds till sown.	Quantities of Seeds.	Will Produce of Plants.	Manner of Sowing.	Depth at which Seeds should be sown.	Distance apart of Seeds when Sown.	Best age to Transplant from Seed- beds.	Best age to Plant out permanently
ОАК	November	Should be sown soon after ripen-	1 bushel	Farm 6000 to 8000,	<u> </u>	2 inches	1 to every three	1 year	2 to 4 years
Бъм	May and June	If not town when gathered the seed will not braind till fol-	1 bushel	From 5000 to 7000	apart In rows 15 in. apart	inch i	duare inches to every two square inches	l year	2 to 4 years
Ави	End of October	In dry sand or light earth for 12 months, to rot the outer	1 bushel	From 12,000 to 16,000	In rows 15 in.	inch i	1 to every three aquare inches	1 year	3 years
:	End of October		1 bu,hel	From 10,000 to	In rows 15 in.	linch linch	1 to every two	1 & 2 years	3 to 4 years
	End of October		1 lb. of clean seed	io.	In beds	inch	1 to the square	I year	8 уевтв
:	October	In sand and slightly damp and regularly turned once a week	1 bushel of clean seed	From 15,000 to 18,000	In beds	ł inch	200 to square	1 year	y carre
SWEET CHESTAIN	October	Should		From 2000 to 3000	In rows 18 in.	_	1 to every four square inches	1 year	8 years
NORWAY MAPLE			t bushel	From 0.000 to	In rows 18 in.	2 inches	1 to every three square inches	1 year	3 years
SYCAMORE.	tober. Middle of Octo-		1 bushel	10,000	spart In rowe 15 in.	inch	square inches	1 year	3 years
WALRUT	Beginning of Oc-	or in the spring Should be sown when gathered	1 bushel	15,000 From 4000 to 6000	apart In rows 18 in.			1 year	3 to 4 years
Holly	November	Should be rotted in a heap with		From 15,000 to	apart In beds	inch.	inch I to every equare	2 years	5 years at
Тнови Наws	November	Should be rotted in a heap with	1 bushel of	From 15,000 to	In beds	l loch	ry square		least 3 to 4 years
Scots Pine	November and December	When convenient should not be taken out of cones till sowing	1 lb. weight	00 to 10,000	In beds	inch	2 to the square	l or 2 years	3 to 4 years
LARCH	November	When convenient should not be then out of conestill sowing time	1 lb. of	From 2000 to 3000 only, a large pro-	In beds	tinch .	2 to the square	ll or 2 years	From 2 to 3 years,
SPRUCK FIR, NORWAY	November, seed generally imparted	Ö	1 lb. weight	From 8030 to 10,000	In beds	f inch	2 to the square inch	2 or 3 years	From 4 to 5 years
Silver Fir	r, seed lly im-	On shelves in a dry airy loft	1 lb. weight About 500	About 500	In beds	# inch	2 to the square inch	2 years	5 years
Pinastrr	Seeds generally In a dry airy loft imported		1 lb. weight	1 lb. weight From 500 to 800	In beds	inch 1	1 to the square 1 year		From 2 to 3 years



SUBSCRIPTION PRICE, \$1.00 per year, entitling the subscriber to membership of the Fruit Growers' Association of Ontario and all its privileges, including a copy of its valuable Annual Report, and a share in its annual distribution of plants and trees,

REMITTANCES by Registered Letter are at our risk. Receipts will be acknowledged upon the address label.

Notes and Comments.

This season is, after all, little better than last, so far as the apple harvest is concerned. Last year was discouraging enough, for the apples failed, and the peaches and grapes were ruined with a terrific hailstorm. Fruit farming has greater possibilities of success than any other branch of agricultural life, no doubt, but it is also subject to disastrous failure, when frosts, and insects and fungi combine to destroy the magnificent prospects of the early part of the season.

The Best early summer Pear is perhaps the Beurre Giffard. We have just finished marketing it (Aug. 10th). The Doyenne d'Ete was first to ripen, then the Chambers, the Osband's Summer, and the Beurre Giffard. The others are rather small, excepting Chambers, which is of fair size, but in quality, size and in beauty the Giffard excels. It must, however, be gathered just before maturity or it will rot at the core. Elizabeth is following it closely, a very small, but very productive, variety.

THE RED SPIDER is unusually troublesome on the currant bushes in some localities. Mr. Joseph Tweedle, of Stony Creek, brought us some leaves of the Red Cherry currant, which were sere and yellow, just ready to drop, through injury caused by this insect, which was in large numbers on the underside of each leaf, and so tiny as to be scarcely discernible with the naked eye. According to Mr. Fletcher, kerosene emulsion is the best remedy, using one part of stockemulsion to twelve of water.

THE RIVERS PEACH is proving itself a valuable early variety at Maplehurst. No variety is more productive, the trees being laden down with fruit; it ripens
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in a favorable time, the most of them being now ready for harvesting (Aug. 10), when the market is open for a better variety than the Alexander. Its chief fault is its tender skin, which is so susceptible to bruises. The prices for all early varieties are very low this year, because they come in competition with a better class of peaches from the West and South. Eight quart baskets are now selling in Toronto (Aug. 10th) as low as 20 cents each; but when our fine Crawfords are ready, those from the South will be out of the market.

Among our recent visitors was Senator MacInnes of Hamilton and Mr. G. R. Parkin, of Harwich, Essex Co., Eng., representing The London Times. After visiting the Maplehurst orchards they expressed themselves highly pleased with what they saw, as representing the fruit industry of Canada, which Mr. Parkin was desirous of writing up for English readers The great need, Mr. Parkin said, in order to make our apple export trade a success was improved packages for extra grade fruit, and an Inspector's brand in order to give confidence to the English buyer. Mr. Parkin had just returned from Australia, where he found extra grades of apples for the British market were packed in bushel boxes, each sample wrapped in tissue paper, and this kind of stock commanded a steady high price in London market. We explained to him how far our Association had succeeded in securing legislation on this subject, which provided for the grades and the brands, but lacked any grant of money, which was absolutely necessary in order to make the Act practicable, for no man would act as inspector without some assurance of support. Senator MacInnes thought that if this matter were written out in proper form, explaining just what was required, and placed in the proper hands at Ottawa, no doubt fruit growers would get what was required to make the apple export trade of Canada a success.

THE CANADIAN FRUIT BUYERS' AND EXPORTERS' ASSOCIATION recently held a meeting in Toronto at which the following resolutions were passed:

- 1. "Resolved, that the practice which has existed in the past, and which has become so general, of engaging assistants in buying and packing on commission should be discontinued, and in future all assistants and help shall be paid by salary, by the day, week, month or season, as can best be arranged, and any member of the Association found violating the same in the future shall be subject to the censure of the Association."
- 2. "Resolved, that we, as members of this Association, pledge ourselves not to purchase apples on the plan known as 'so much and the rise,' or to give what is called a bonus, and to use, so far as it lies in our power, the form of contract adopted by the Association."

3. "Resolved, that the members of this Association faithfully agree not to accept any 'shipper's count' or 'more or less' bill of lading when shipping apples, but to insist on clean bills of lading."

A standard of quality was also adopted, which is the same as that described in our 24th Annual Report, p. 66, viz., Grade No. 1 shall consist of well-grown samples of varieties named, somewhat uniform in size, well shaped, of normal color, free from scab, worm-holes, curculio knots, etc.

🛪 Question Drawer. ⊱

Shipping Apples.

667. SIR,—I have a fine sample of apples. I have sprayed my orchard five times with the Bordeaux mixture, and I think I will not have less than five hundred barrels. I do not wish to sell them at our usual price of \$1.00 per barrel. What is the best method of disposing of them? Nearly all of them are the best winter varieties. I have seen suggestions in your paper concerning the shipping of apples in a special package holding about half a barrel. Do you know of any one who has had experience in this? Would you advise me to ship my own apples or sell to buyers? Is there an association formed for having apples inspected at the seaboard and sold direct.

J. C. HARRIS, Ingersoll.

Our correspondent has evidently proven the usefulness of spraying with the Bordeaux mixture, for in those orchards where no spraying has been done a large proportion of the apple crop is badly affected with scab and the trees are already losing their foliage. As a rule growers throughout the country do best to sell to buyers at a reasonable figure, because there is so much risk in shipping to Great Britain; either the grower does not understand packing them for the British market, or he fails in getting them carried through in good condition to the old country. There are parts of the ocean steamships favorable to the safe carriage of apples, and others, near the heat of the boilers, where they are often ruined on the voyage. Unless, therefore, one can become in direct communication with some steamship company and secure the best accommodation for his apples, there is a danger to them on the ocean voyage. Then again he needs to be in some communication with reliable salesmen in Great Britain. are many of these, some of whom advertise in THE CANADIAN HORTICULTURIST, and, as a rule, providing the conditions referred to above are favorable, it will pay better to consign apples to such houses in Great Britain than to sell the best varieties to buyers here as low as \$1.00 per barrel, especially in a season like the present one. There is no package yet in use more suitable for shipping apples than the Canadian apple barrel. A smaller package is only useful where the apples are particularly fancy and extra selected. Inspection of apples has been proposed by our Association and an Act has been passed in favor of the same, but nothing definite has yet come out of it. It is hoped that very soon our government will place this matter upon a working basis, because it would go far toward developing the apple growing interests of the Province of Ontario.

Sulphate of Iron.

668. SIR,—What quantity of sulphate of iron is used to a gallon of water in spraying trees?

GERALD REHALLY.

One pound to twenty-five gallons, but only to be applied when the tree is devoid of foliage. Instead of this, however, the copper sulphate solution is recommended for fungus disease, one pound to fifteen gallons of water—see page 160.

(331)

The Oblique Banded Leaf Roller.

669. Sir,—What shall I do for a worm that rolls up the leaves of currant and gooseberry bushes, fastening the leaves up with a web. I have noticed it also on the leaves of trees, eg., the apple and plum. I send you a specimen.

C. P. MORGAN, Traro, N. S.

Reply by Prof. James Fletcher, Central Experimental Farm, Ottawa.

The specimens sent by Mr. C. P. Morgan, from Truro, N. S., which he had found so troublesome upon his currant and gooseberry bushes, of which they rolled up the leaves and destroyed the foliage, are the caterpillars of the Oblique banded Leaf Roller (Cacoecia rosaceana, Harris). This insect has been rather more abundant and injurious this year than usual. It is sometimes a troublesome pest upon apple trees. This year it has been sent to me as an enemy of the birch, apple, pear, gooseberry and currant (it is always rather abundant upon these), and a rather interesting attack, in which it destroyed the seeds only of the silver maple. In fact this insect seems to be a pest on a very large number of shrubs and trees, upon any one of which it may develop injuriously upon special occasions. The general practice of spraying fruit trees for the codling moth and Leaf Roller, will certainly reduce very largely the occurrence of this pest, and spraying the bushes with Paris green, or any of the well-known insecticides, will keep it in check.

Seedling Currants.

670. Sir,—I will mail you to-day some sample currants—3 seedlings red—one of which is the best in quality I ever saw; to distinguish it I call it the Foundling. In size it is about as large as the Cherry, but the bush being old and every available branch being layered, it is not as large this season as formerly. It is an upright grower and very heavy bearer. I send with them some others to test them by, as you may not have any on hand. I am rather late in sending them, as currants left long on the bush tastes a little bitter. I may also send a sample of red raspberry if I can find any on the bush; it is one that I crossed.

F. W. PORTER.

The samples very much resemble the Cherry currant, but are too much bruised to test the quality; the raspberries are entirely mashed. They need packing with cotton, so that they cannot move about.

To Destroy Borers.

671. Sir.,—On page 269 you give Mr. Hillborn's method against the peach borer. Would the same be effective against the currant borer? If so, how should it be applied Is there any certain method of dealing with this pest except cutting out the wood affected?

W. H. Rowson, Burlington.

We do not know of any experiments in this direction having yet been made. The application to currants of this mixture with a brush would be too much labor, and even if a solution for spraying could be prepared, it would be difficult to apply it to the stems in June, on account of the foliage. The currant stems need frequent renewal, anyway, and, when grown in bush form with six or eight stems from the root, it is not wholly an evil that the older stems have to frequently be cut out, for thus new and vigorous ones are encouraged. Probably there is no plan better than the old one, after all, for destroying the currant borer, viz., cutting out and burning all old or stunted stalks, whether plainly affected or not, and thus keeping up an abundance of young and vigorous shoots.

An Old Sod for Fruit.

672. Sie,—I have a piece of land 150x150; it is in grass—has not been worked for years—soil, a stiff clay. Two or three pear trees on it bear well. What fruit I get from it must be gathered by last of second or third week in September. I want to get the land into shape at once, and put in principally pear and plum trees. Would it be too much to ask you for a line saying how I should treat the land, how many and what varieties of fruit I should plant? Would sand mixed with the soil improve it?

J. GREENE, Hamilton, Ont.

Such land as this should be well worked up before planting, and, if at all wet, thoroughly drained. If ploughed this fall, and left exposed to the frost of winter, it will no doubt work down into fine tilth next spring, and may possibly be planted with fruit trees: but unless in proper condition then, it would be best to work it up for a year to beans, or by summer fallowing, and then plant it. The application of a thick coating of loam on the surface would very much improve the texture and quality of the soil; and even a few loads of sharp sand ploughed in it would help it much, mechanically. Plums, pears, grapes and gooseberries would thrive well on such soil.

Grape Vine Pruning.

673. SIR,—On page 265, in speaking of the Wilder Grape, you say "it should be trained on the Renewal System," etc. Please tell me where I can get instructions on this system.

C. Moretti, Montreal.

This has been several times described in this journal, and will be given again in pruning season if called for. It provides for two arms, on the lower wire from which upright stems are grown, about twelve inches apart. These are cut back, alternately, every other year to the main arms, and thus the young fruiting vines are always near the root and full of vigor.. See "Fuller's Grape Culturist,," or "Bailey's American Grape Training."

THE BRITISH APPLE MARKET.

THE PROSPECT for the sale of Canadian apples in Great Britain this season is unusually bright, according to a cable to the Montreal Star it is said that the prospects for the trade are even better than in the bonanza years of 1891 and 1892. The report further states that there is scarcely any fruit worthy of attention in the British Isles, or on the continent, and that the importations of apples must necessarily be heavy. Here is a circular also just received (August 11th), from Mr. J. B. Thomas, London, which goes to confirm the above statement:-

Having now received reports from all the most important apple-growing districts in this country, as well as from the Continent, I submit a digest of the information therein

furnished, which may prove useful to shippers.

In the early spring of this year we had every indication of a very early summer, and all kinds of vegetation looked healthy and promising. Farmers and growers anticipated better results even than last year, which was a phenominal one. But these anticipations were completely frustrated by a sudden fall in the temperature, and slight frosts during the latter part of March and early in May, which destroyed the fruit blossoms and paralysed vegetation, and the hopes of satisfactory, if not abundant crops, were shattered.

United Kingdom.—Reports from the South-eastern counties, whence London supplies are principally derived, show that the apple trees suffered severely from the late frosts. The tale of disaster is uniform from all quarters, and the probable yield of apples varies from one-tenth to one-quarter, as compared with that of last year. The condition of the fruit appears, however, to be generally good, and although the yield is sure to be light, the apples are healthy, large, and likely to ripen well.

From the Western and Midland districts reports are similar. The entire yield will

probably not equal one-fifth of last year's crop.

France.—Advices from the North and North-western districts, from whence the largest proportion of exports to this country is made, show an average crop. Early sorts will be abundant, later kinds also promise well; and as both rain and sunshine are pretty well proportioned up to the time of writing, the quantity and condition will, in all probability, be satisfactory.

Holland and Belgium.—Our reports indicate that the crops will be considerably less than the average, and, while the yield is expected to be scanty, the apples will, so far as present appearances indicate, be gathered in fine condition.

Germany.—Every prospect of a very poor crop—not equalling more than a quarter of the quantity gathered last year. Of late sorts it is stated that if a light crop they are sound and promise to ripen well.

Spain and Portugal. - The yield is an average one and of fair condition, but the bulk of shipments to this country will be over at latest in the month of September.

It is, then, abundantly clear that the great bulk of the crops on this side will be consumed before supplies from your side arrive, and that shippers need not allow any consideration of our crops to limit the extent of their operations. Given a good crop on your side, and gathered in good condition, there is every prospect of a large trade being done with this country during the ensuing season. Shipments to London may commence end of October, and earlier to our northern seaports.

MESSRS. L. W. WILLIAMS & Co., of Liverpool, write:

From reliable reports we learn the crop in the United Kingdom is extremely light, while Continental advices also show their supplies will barely meet home requirements, fine varieties being scarce, therefore, we anticipate there will be a good demand for large fine fruit, which quality only recommend shipping, and would strongly advise senders to abstain from exporting inferior and small stock, which will not be wanted.

MESSRS. W. W. WHITE & Co., of London, England, write:-

Last year America and Canada had a bad crop, whereas in England we had a very heavy one -the heaviest for twenty years-and very few apples were expected to be wanted here, our home supply was thought to be sufficient for all requirements; but, contrary to expectation, it was found that shortly after Christmas our stock of apples was exhausted. This year we believe will turn out to be the worst crop we have had for twenty years in England—in many counties only sufficient for local consumption; and in the home counties which supply London during the fall—that is to say, August, September and October—we think this year one month will be sufficient to clear up all their crops.

As regards the Continent-

Holland has only half a crop.

Germany only a quarter crop, and will, we believe, be a larger buyer this year from other countries.

France has a fairly good crop in the south, but, being early fruit, these are likely to be cleared away during the next three months. On the other hand, the great apple-producing country from Nantes to Orleans has a bad crop; and the country adjoining Belgium also is bad. This is most important, it being a district that sends very largely to the English markets.

Belgium, in certain districts, has a fair crop, but they are mostly early fruit—sorts that do not keep much after October—late sorts are a very bad crop.

Italy had a very large crop last year and sent something like 5,000 tons here after Christmas, but this being the non-bearing year she can only have a light crop.

Looking at Europe generally, it is the worst crop of apples for many years, and this should leave a grand opening for all the marketable fruit you have in your country fit to send to England.

Nova Scotia, we hear, has a fairly good crop; and Canada is said to have an average crop. On the other hand it is reported that crops in Virginia and one or two other States are very scanty. New York State is reported to have a good crop, and we look forward to a very large trade with your part during the coming season.

THE BENEFIT OF SPRAYING APPLE ORCHARDS.

EADERS of the Canadian Horticulturist will have noticed what the Editor says on page 270, August, 1894, of the injury to Mr. Mitchell's apple trees and Ben Davis and Greening apples, caused by the apple scab, Fusicladium dendriticum, whose trees had not been sprayed; and will remember the contrast presented by his own orchard where the Bordeaux mixture had been faithfully applied. A letter has recently been received by the writer from J. C. Harris, Esq., Ingersoll, Ont., in which he says, "I sprayed my apple orchard

five times this summer, and I have, I think, the finest samples all through I ever saw; think I will have not less than five hundred barrels, all best winter varieties."

Not only does spraying, when properly and persistently done, prevent the fruit from becoming scabby, but also keeps the foliage clean and healthy; and, therefore, other things being right, also keeps the trees healthy, and the fruit better in size and color.

Of this the fruit grower may be assured, that if he neglects to spray his trees properly he will soon find that the fruit is inferior in size, quality, and quantity, and that growing apples for market does not pay.

Toronto, Aug. 6th, 1894.

D. W. BEADLE.

THE APPLE CROP IN ONTARIO.

The rumor having been spread by apple buyers that there are a large quantity of apples in the country, and that there will be at least 1,200,000 barrels for export, we deemed it wise to enquire more fully, in order that our growers may be on their guard and not sell their apples below their true value. The highest reliable estimate indicates about 50% of a full crop for Ontario, but in our opinion 25% is more nearly correct. The United States crop will be about 50%, so that, at the best, there is but a half crop in North America, while the European crop is very short indeed. The probability is, therefore, that first grade apples will, this year, rule much higher than usual.

We give extracts from letters from various parts of the province which will interest apple growers:—

Southern Ontario.

- Mr. W. M. Obr, of Stony Creek, writes:—In my July report of the apple crop I gave you 10 to 15% for fall, and 5 to 10% of a full crop for winter, fruit. I cannot make any better report now. Prospects here not improved, the drought continues, we have had very little rain since middle of June, there will not be a dozen barrels of winter fruit fit for market in some of the orchards in this section. I have not heard of any apple buyers in this section this year. Our apples are usually sold for the English market, but from what I could learn at the Columbian Exposition, from growers and buyers from the Southern and Western States, I believe that before another decade the bulk of our apple crop will be marketed there, as they expressed themselves delighted with the appearance and flavor of our apples.
- MR. W. Pettit, Winona:—It is difficult to arrive at what percentage of a crop there will be in this locality. I think from 15 to 20%. One buyer who had been out for some time said, the crop has been very much over-estimated; in sections where a fair crop was reported he found very few. I have heard of no price for winter fruit yet.
- Mr. A. M. Smith, St. Catharines:—I don't think I have any reason to change my former statement that apples will not be more than 10% of a full crop here, and poor at that.
- Hon. L. C. Chapin, Brantford:—Fall apples in this section 50% of full crop, but dropping continually, premature ripening. Greenings 50, but other winter apples not above 50. Sample will be small and uneven in size. No prices offered as yet.
- MR. J. K. McMichael, Waterford:—In this district there is about 25% of an average crop of apples. The sample is very second class from the severe attack of fungus. Good varieties of fall and winter apples, hand picked, are worth about thirty cents per bushel at our canning factories.
- MR. J. C. Harris, Ingersoll:—Apples are fully 50% of a full crop, and perhaps more, but a poor sample. Not many worms, but greatly injured by fungus. I understand buyers here are not offering over \$1.25 per barrel as yet. The majority of winter apples in this section are marketed in England. Thanks to the Horticulturist and Report of Fruit Growers' Association for bringing before its readers the importance of spraying, I have this year, I think, double the apples I ever had before, and nearly every specimen perfect by spraying with Bordeaux and London purple.
- Mr. J. L. HILLBORN, Arkona:—I have been driving for some time buying apples. I find the crop about as follows: Fall apples, 30%; winters, 75%. Quality fair to good, except Spys, which are small, and quite spotted where not sprayed. Where the spraying was at all well done I see much benefit from its use.

- MR. W. W. HILLBORN, Learnington —The apple crop is better than it has been during the last three years. It cannot, however, be considered much, if any, more than half of what was considered an average crop a few years ago. The leaf blight and spot is very bad on most orchards. The weather has been so dry here that only those orchards that have been well cultivated are producing good apples. The price offered here is 75 cts. per barrel for fall varieties and \$1 for winter.
- W. GAY, Elora:—In answer to yours I would say that the percentage will be, in fall apples, and pears and plums about 50%; winter apples not more than 40%, owing to neglect in spraying and the very dry weather. There has not been any buyers as yet looking for fruit. Astrachans are a drug—the fruit all falling off. Duchess, small and much scabbed. The winter apples from this section go chiefly to the English markets.
- Mr. W. J. CLINTON, Windsor:—The South Riding of Essex expect about 50% of a full crop, while the crop in the North Riding will not exceed 40%. If we do not get rain soon the prospects are that it will be still less. Our apple growers are waking up to the fact that it is necessary to spray the trees and work the ground in our orchards to get a profitable crop. Fall apples are worth 40 cts. per bushel, and are sold principally in Windsor and in the towns and villages of the County.

Middle and Northern Ontario.

Mr. A. McD. Allan, Goderich:—Apples still falling badly, and even leaves turning yollow and falling with the dry weather. Apple crop fit for market in this district only 5%. Best fruit on heavy lands average for the Province 25%. Buyers offering \$1 only, but proper value is high. British market unusually good and prices on upward grade. I look for highest prices ever obtained for finest quality.

Mr. JAS. LOCKIE, Waterloo:—I may say that there will be no apples in this district to spare for shipment. Winter apples are not plentiful; there are fall apples enough for home consumption and probably some more. Snow apples are plentiful; some Golden Russets, and a few of other varieties. But this will not be enough to make it worth while for any one to make any shipments from here.

MR. SIMON ROY, Berlin:—The apple crop throughout this (Waterloo) County will average about one-half of the season of '93, and that half mostly of fall and early winter varieties. The Golden Russet appears to hold its own, and probably a limited supply of this variety may be obtained for export. Spies, Baldwins, R. I. Greenings and Blenheim Oranges—our most valuable varieties—are rarely seen on the trees. A good demand exists for the early apples for the purpose of drying—as was proved by the provident portion of the community.

Mr. J. Cuppage, Orillia:—On the whole I should call crop 50 per cent., but most fall and winter sorts are badly spotted, and the severe drought prevents swelling of the fruit.

Mr. Thomas Plunkett, Meaford:—In reference to the apple crop in the Township of St. Vincent, on the Georgian Bay. I have interviewed three dealers who have been over the whole ground, with a view of purchasing the stock. One says: There is a fine crop in St. Vincent except in one or two places. Another says, full crop in some places, but won't average over 60 or 70 per cent. Another says, about 60 per cent., and if we don't soon get rain it will be much less. It is considered by all dealers the crop won't come up to an average crop. The long-continued dry weather is telling seriously on the uncultivated orchards. The great difference in the reports of the dealers is owing to the time the examination was made; the first report was early in the season. I don't think we will average over 60 or 70 per cent. now.

Mr. Chas. Drury, Crownhill:—Early apples in this country are, as a rule, an average crop. Winter and other varieties will not be more than 60% of a full crop.

Mr. E. B. Edwards, Peterboro':—The apple crop in this neighborhood promised to be a large one, but there was a large falling off earlier in the season, and the present dry weather has prevented the growth. There will be probably about half, and in some cases two-thirds, of a crop. There are, however, not many apples grown for export—a few carloads at the most.

- Mr. B. Gott, Arkona: Pears very abundant, and samples good, clean and nice especially where they have been treated with fungicides. The price is low. We want better distribution to more remote markets. Regarding apples, I am sorry to say that I cannot speak with precision of any very great extent of this country; but as far as my information goes, the crop is a very good one indeed; and even in this section, abundant. There is quite a variation, however, in the crops, arising from the soil and the orchardist. On the sandy soil of Caradock, for example, the fruit is not as good or as plentiful as on the better soil of Adelaide; neither is the fruit withstanding the drought as well, or ripening as well. But the greatest injury to the crop of all, is negligence from the orchardist. Poor, neglected, slovenly orchards, and we have a great majority of them, are almost in every case a despicable spectacle, and will be a losing game to their owners. But where proper pruning, and spraying, and culture, have been timely attended to, the orchards look well, the fruit is clean and beautiful, and very plentiful, and maturing nicely, and will be a source of great profit to the owners. The apple crop here, under our present conditions, will average this season, upon an approximate estimate, will run some 50 to 75 per cent. of a full crop over this west of Ontario. The price the growers are now offered for them are 75c. per barrel for fall fruit, and \$1 per barrel for the winter fruit, the buyer finding the packing and doing the labor. Already the summer apples, and some of the fall apples are packed and away, and the buyers are now busy going round to look up the winter frult, and to secure them if possible.
- Mr. J. D. Stewart, Russeldale:—Summer and early fall apples, mostly small and of inferior quality, being principally used for stock and home consumption. Should the drouth continue much longer, winter sorts will barely yield enough for family wants on farms whose orchards enabled the owners to dispose of considerable quantities in former years. Mr. Ryan, of Mitchell, has bought the bulk of our apples the past two seasons for shipment to the old country. No offers so far for what may be placed on the market.
- MR. C. W. HARTMAN, Clarksburg: The apple crop is reported to be a good average crop. Size of fruit somewhat smaller, owing to dry weather. Fall apples are more or less marked with scab. Rogers for English market are paying as much as \$2.00 per bbl., but the price is not yet definitely fixed.
- MR. J. A. MORTON, Wingham:—The apple crop is very badly spotted in sections, and will not be over \(\frac{1}{3} \) crop, probably not much over \(\frac{1}{4} \) of salable fruit for shipping. Buyers are offering \(\frac{1}{3} \) l per bbl. at the orchard for winter fruit. Spys and Kings are badly spotted, Baldwin less so. The principal market for apples in this section is the British. Duchess is a good crop.
- MR. G. C. Caston, Craighurst:—In reply to your enquiry on fruit crop, would say that early apples are abundant and cheap. Fall apples will be a fair crop, but the quality will be below average. Early apples, Duchess and Astrachan, have been selling from \$1 or down to 50c. per bbl. Some have been shipped to Manitoba, and some to the Algoma District. Winter apples will not be more than 50% of a full crop, and I think even that is too high an estimate. Pears are not grown here extensively enough to be worth while estimating quantity, or quoting prices. What few are grown are consumed locally.

MRS. CHAS. Top, Bowmanville:—The apple crop, the Early Harvest, Red Astrachan, and Duchess about \(\frac{2}{3} \) crop. Price paid about 75c. per bbl. for the fruit in the orchard. Later fall fruit about \(\frac{1}{2} \) crop. Winter fruit not more than half crop, or about the same as last season, which was considered a very light crop.

- Mr. W. Boulter, Prince Edward Co.:—In my district, which will be a fair guide, apples, summer and fall, is good, fully 75 per cent. Winter varieties are poor, will not be over ½ crop. Quality is good, but suffering at present from severe drouth. Prices, summer fruit, \$1 per bbl.; seller furnishing bbl., 25c. Winter fruit, on account of conflicting ideas as to English demand, prices are unsteady, few of any sales are yet made; possibly will range from \$1.00 to \$1.50 per bbl. Pears generally good. Plums very few. No peaches or grapes in locality.
- MR. THOMAS BEALL, Lindsay:—Summer apples, above average; autumn, average; winter, one-half of average. This applies to this immediate locality. Both the apple and the pear crop will be much below the average in this district this season, caused by the unprecedented rainfall which set in on the 18th of May. All fruit trees were in prime con-

dition in the spring, having passed the winter without injury. About the 12th of May the orchards here were unusually full of bloom and presented a most beautiful appearance, which of course gave promise of a large yield of fruit. But many varieties of both apple and pear blossoms were insufficiently fertilized when the rain set in on the 18th and which continued almost without intermission until the 3rd of June. As a consequence the later blooming varieties of both apple and pear trees are bearing but little or no fruit.

MR. JOHN H. CROIL, Aultsville:—Will have an average crop of both early fall and early winter apples in this district, and the quality of both kinds promises to be of a good quality, average size and fairly free from spot. The early fall varieties, Duchess, St. Lawrence, etc., are usually sold in our local markets in Ottawa and in Montreal at from \$1.00 to \$1.25 per bbl. on cars, nearest railway station; and the early winter varieties, Fameuse, McIntosh Red, etc., bring about 25 cents per bbl. more in the same markets. There are very few late winter apples raised that are suitable for export.

Mr. W. S. Turner, Cornwall:—After making diligent inquiries, I must still put ours at 100, and very good fruit at that. Very little scab, though the tent caterpillar is very numerous, but that will not affect our crop much. Fall apples almost a drug. No prices yet for winter fruit. I do not think there is enough grown here to affect the market much. We ship to Montreal usually.

* Open Letters. *

The English Gooseberries.

SIR,—I may say I do not look to the pure English varieties for our future gooseberries, but to a cross with Pearl class again on English. Pearl, on account of its wonderful vigor, would be the line I should pursue.

Spraping no doubt has settled the mildew problem, but so far as my experience goes, there is a worse impediment in the way of the general culture of the English varieties, that is, their want of vigor.

You will admit that for general culture we need large crops of large fruit, and the Euglish, so far as I have seen, don't grow wood enough to make large crops possible.

STANLEY SPILLETT, Nantye.

REPORT CALLED FOR OF PLANT DISTRIBUTION.

In order that the Association may receive some benefit from the labor and expense of sending out plants and trees during the years that have passed, we have decided to ask for a tabulated report from all our readers of those plants which have been tried by them. The page having the form on it may be cut out, and filled up as fully as possible, and addressed—To the Secretary of the Fruit Growers' Association of Ontario, Grimsby. From these a report will be prepared to be presented at the Annual Meeting in Orillia, next December.

Abbreviations to be used in filling in the accompanying blank forms.

Size. 1. large. m. medium. s. small. 2. small. 3. small. 4. r. c. roundish conical. y. r. yellow and red. r. ob. roundish oblate. r. s. red striped. y. greenish yellow. rus. russeted. y. rus. ryslow & russet. y. rus. ryslow. b. best. Size. 1. large. m. medium. s. small. 3. small. 4. small. 5. size. 5. size. 6. large. m. medium. s. small. 6. conical. v. y. yellow. 7. roundish. 6. conical. v. y. yellow. 7. red. shop. n. medium. s. small. 7. or oundish oval. 7. reddish when fully ripe. 8. size. form. coval. r. reddish when fully ripe. greenish yellow when b. best. 8. small. r. o. roundish oval. 8. small. r. o. roundish or round. russ hape. r. ob. h. obtuse heart shape. r. h. roundish or round. shaded and marbled with red. 9. proprish yellow. p. proprish v. grood. v. g. very good. v. g. very go									
s. small.									
Size. Porm. Color. Quality. Season m. medium. c. conical. o. obtuse. p. purplish. reddish. v. g. very good. h. best. l. late.									
Color. C									
Description	ason.								
Size. Form of bunch. Color. Quality. Use. Season	dinm. ly.								
l. large. m. medium. s. small. Size. Form: Color. C									
1. large, m. medium, s. small, shape, r. ob, h. roundish obstance in the shape, r. roundish or round, shaded and marbled shaded and shaded an	a. on								
Size. Size. I. large. m. medium. Size. Size. Form. Color. Color									
Size. 1. large. m. medium. s. small. Size. Size. Form. Color. Co	dium.								
l. large. m. medium. s. small. r. roundish oval. r. roundish oval. r. roddish when fully g. good. ripe. g. greenish yellow when b. best. r. o. roundish oval. CHERRIES. CH	GOOSEBERRIES.								
1. large. m. medium. s. small. r. o. round. r. o. roundish oval. r. reddish when fully g. good. r. v.g. very good. r. v.g. very good. best. CHERRIES. CHERRIES. Color. Color. Color. Color. Large. m. medium. s. small. r. ob. h. obtuse heart l. r. lively bright red. d. r. dark red, almost black. r. ob. h. roundish obtuse heart with red. r. h. roundish heart shape. r. h. roundish heart shape. r. roundish or round. shaded and marbled r. roundish or round. shaded and marbled r. m. rounded r. m. family or market. k. m. cooking or market. m.	# DZIA)								
s. small. r. o. roundish oval. g. greenish yellow when b. best. CHERRIES. CHERRIES. CHERRIES. CHERRIES. CHERRIES. CHERRIES. CHERRIES. Color. Use. i. family, for dessert. shape. c. ob. h. roundish obst. black. c. ob. h. roundish heart shape. c. h. roundish heart shape. c. h. roundish heart shape. c. h. roundish or round. shaded and marbled c. roundish or round. c. roundish oval. c.									
Size. Form. Color. 1. large. m. medium. s. small, c. ob. h. roundish obtate tuse heartshape. a. m. amber mottled with red. shape. r. h. roundish heart shape. a. m. amber mottled with red. shape. r. roundish or round. shaded and marbled shape. r. roundish or round. shaded and marbled shape. r. roundish or round.	iium. medium-								
I. large. m. medium. s. small, c. ob. h. obtuse heart l. r. lively bright red. d. r. dark red, almost black. r. ob. h. roundish ob- tuse heart shape. r. h. roundish heart shape. r. h. roundish or round. shaded and marbled r. roundish or round. shaded and marbled Color of the	•								
l. large. m. medium. s. small, r. ob. h. obtuse heart l. r. lively bright red. d. r. dark red, almost black. r. ob. h. roundish obtuse heart shape. r. h. roundish heart shape. r. h. roundish or round. r. roundish or round. shaded and marbled r. roundish or round.									
s. small, r. ob. h. roundish obtack, tuse heartshape, r. h. roundish heart shape, r. roundish or round. r. roundish or round. shaded and marbled r. roundish or round. shaded and marbled sert. m. medium ket. k. m. cooking or market. m. market. m. market. m. market.									
r. h. roundish heart shape. y. r. yellow ground, market. r. roundish or round. shaded and marbled m. m. cooking or market.	lium								
shape. r. roundish or round. shaded and marbled market. m. market. m. market. m. market.	,								
GRAPES,									
Size of berry. Form of bunch &berry. Color. Quality. Use. Season									
1. large. 8. r. short bunch, round b. black, g. good t table									
m. medium. s. small. l. r. large and round. m. r. o. medium bunch, roundish-oval berry. m. r. medium bunch, round berry. m. r. reddish or coppery- v.g. very good. brownish red. b. best. w. market. w. winc. l. late.	lium.								

OTINCES.

		QUINCES	J.,						
Size. l. large. m. medium. s. small. v. very.	Form. o. oblate. ob. obtuse. p. pyriform. r. roundish.	g. greenish. y. yellowish.	Quality. h. half tender. t. tender.	Use. k. kitchen. m. market.	Season. e. early. l. late.				
• •		PEARS.		•	•				
Size. 1. large. m. medium. s. small.	Porra. p. pyriform. r. o. p. roundish obtuse pyriform. r. a. p. roundish acuta pyriform. ob. p. obtuse pyriform. ob. o. p. oblong obtuse pyriform. r. roundish. r. ob. roundish obtuse	or russet red cheek. y, r, yellow and russet. y, when mostly yellow or yellowish.	v.g. very good. b. best.	Use. f. valuable family dessert. k. m. kitchen and market. f. m. family and market.	l. s. late sum- mer. a. autumn.				
		PLUMS.							
Sizc. l. large. m. medium, s. small.	Form. o. oval. ob. obovate. r. roundish.	Color. g. greenish. p. purplish. r. reddish. y. yellow.	Quality. g. good. v.g. very good. b. best.	f. family. m. market.	Season. e. early. l. late. m. medium.				
STRAWBERRIES.									
Size. l. large. m. medium. s. small.	Sex. b. bisexual. p. pistillate. n. p. nearly pistillate.	d. c. deep crimson, d. s. deep scarlet, b. s. bright scarlet, w. t. whitish, tinted with red. l. c. light crimson,	Porm. r. c. roundish conical. o. c. obtuse conical. c. conical. r. roundish. r. o. c. roundish obtuse conical.	f. firm, m. medium.	Season. e. early. m. medium. l. late. e.l. early to late.				

								Value	-Scal	e 1·10.
VARIETY.	Year.	Size.	Form.	Color.	Quality.	Use.	Season.	Southern Ontario South of North Latitude 43½.	Central Ontario from 43½°-44½°.	Northern Ontario North of North Latitude 441
Swazie Pomme Grise Apple	1875		-	¦	<u> </u>					.'
Glass Seedling Plum	1876		1							
Goodale Pear				İ						į
Burnet Grape	1878			1			1			
Ontario Apple	1879		!	Ì						
Saunders' New Hybrid Rasp	1400	i	ì	1						
berry	1880	1		ļ				i i		
Senasqua Grape	1881							1 1		
Wealthy Apple	1881				-	l				
Lee's Prolific Black Currant	$\frac{1882}{1882}$						ļ	i i		
Moore's Early Grape	1883							l i		
Worden Grape Niagara Raspberry	1883			-						
Canada Baldwin Apple	1884			Ì			ļ	1 1		
Prentiss Grape	1884	ĺ						i		
Russian Apple	1885		ļ				!			
Fay's Prolific Currant	1885		ĺ				İ	!		
Ontario Strawberry	1886	1					ļ			
Russian Yellow Transparent	1886	:			1					
Lucretia Dewberry	1886				1					
Early Victor Grape	1886		į		İ					
Marlboro Raspberry	1886	1		-	1	į				ı
Vladimir Cherry	1887			-			ł			ļ
Hillborn Raspberry	1887		1		:		i	1		:
Niagara Grape	1888	1	;		i			1		
Jessie Strawberry				i						
Doyenne Boussock Pear	1888	ļ								į
Ostheim Cherry	1888	İ	i				1			!
Vergennes Grape	1889	l	i	1						İ
Princess Louise Apple	1889			1		I	1			
Russian Apricot	1890	l			!			1		!
Simon's Plum	1890		i		İ		ì			1
Shaffer Raspberry	1890	1				ŀ				5
Wealthy Apple	1890	1	1			ŀ				-
Bubach No. 5 Strawberry	1890	1	1			ļ	ļ			
Golden White Apple	1891	1				İ		1		
Mills Grape.	1891	ļ								
Williams Strawberry	1891 1891	Ì				}				
Triomphe de Vienne Pear Moore's Diamond Grape	1892		1	1		1	Ì			i
Idaho Pear	1892	i				İ	l	i		1
Gipsy Girl Apple	1892	1					j			
Round Borsdorfer Apple	1892		1				1	.		ļ
Blushed Calville Apple	1892	1]					1		
Silker Leaf Apple	1892	1	1		i					1
Little Hat Apple	1892					İ				
Seedling Black Current	1893		ì	ì	1	ļ	1	.		1
Red Queen Apple	1893	1		İ		Ì				
Golden Reinette Apple	1893				1	1				
Crimean Apple	1893	1	1	1			1	1	!	1

Chicago.

MESSES. SMITH, CORDES & Co., write:—The market on apples opens up this week with a much better demand. All the old stock is cleaned up so that our market is now in good condition and we think that good fruit will sell at prices which will make it profitable for you to ship. We quote you to-day as follows:—Fancy fruit from \$2.40 to \$2.60, choice fruit from \$2.15 to \$2.25, fair to good fruit \$1.15 to \$2.25. Common and badly packed fruit is not desirable, and we would not advise you to ship it.

Montreal.

MONTREAL TRADE BULLETIN:—A little improvement is noticeable this week in apples, the supply not being so heavy and the demand better, we quote prices as follows:—Astricans \$1.25 to \$1.75 per barrel, and baskets 20c. to 30. Duchess \$1.50 to \$1.75, baskets 20c. to 30c.

Buffalo.

MESSRS. POTTER & WILLIAMS, write:—There is very little change to note in the apple market. The supply is liberal, demand very good. We quote fancy Duchess \$2.50, fair to good \$1.75 to \$2.25; Red Astrachan, when large and choice, \$2.50 to \$3.00, some arriving overripe sell at \$1.00 to \$1.50; common varieties \$1.50 to \$2.00.

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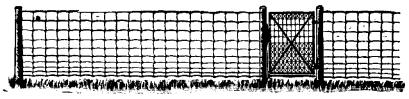
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