

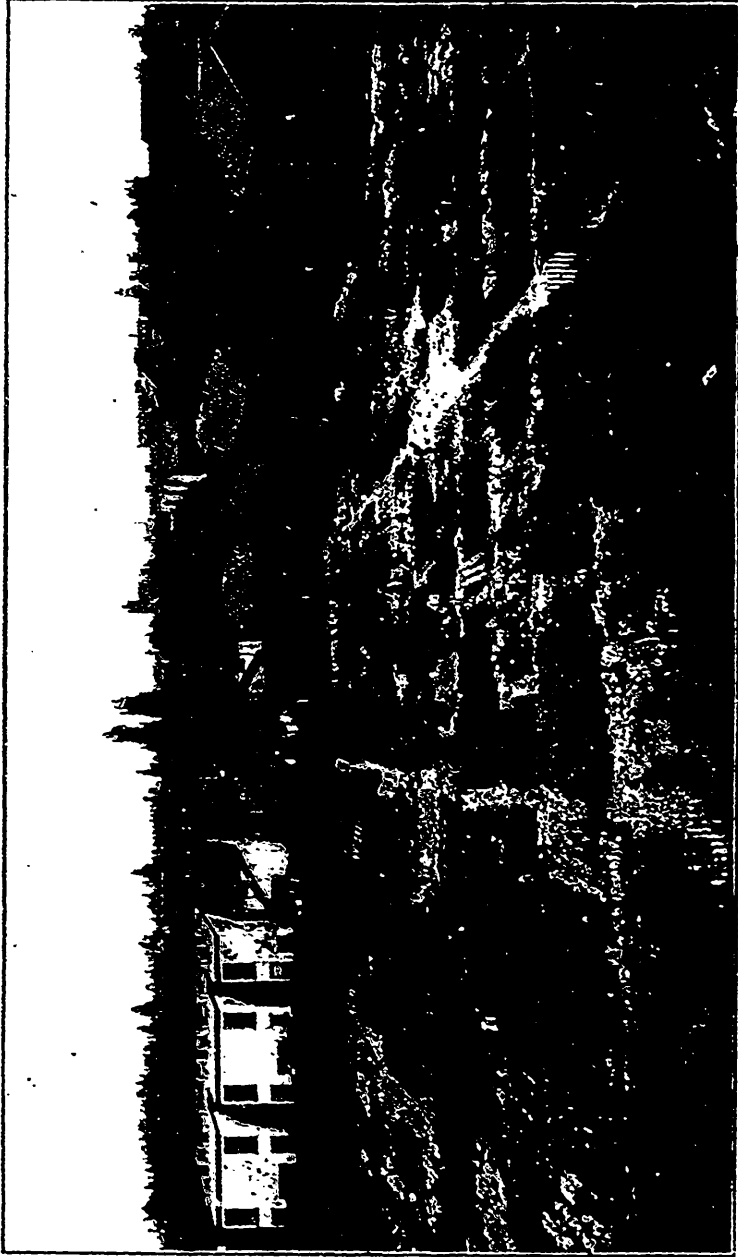
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## JULY

To him who in the love of Nature holds  
Communion with her visible forms, she speaks  
A various language; for his gayer hours  
She has a voice of gladness, and a smile,  
And eloquence of beauty, and she glides  
Into his darker musings, with a mild  
And healing sympathy, that steals away  
Their sharpness, ere he is aware. . . .  
Go forth, under the open sky, and list  
To Nature's teachings, while from all around—  
Earth and her waters, and the depths of air—  
Comes a still voice.

W. C. BRYANT.



### Farm Work Carried on in the City of Toronto.

A Township devoted exclusively to the production of vegetables and a little flowers and fruit is located in the city of Toronto. It is connected with the Broadview Boys' Institute and is managed entirely by the boys. They have elected their own reeve, councillors, path master, ward inspector and other officers. When united two years ago, 46 boys undertook to raise vegetables and produce. The venture proved so successful that last year 66 boys took charge of plots of land. The number has increased this year to 86 who fit in 94 plots. There are 12 large plots which are looked after jointly by all the boys, in which flowers are raised and experimental work conducted. The illustration shows the plots and some of the boys at work. The large boys work plots 10 x 40 feet in size and the small boys sections 1 x 8 x 2 feet. Last fall a two days exhibition of the products of the institute was held which was attended on the last day by 1200 people.

# The Canadian Horticulturist

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## CANADA AT THE ST. LOUIS EXPOSITION

T. H. RACE, OF THE STAFF OF THE CANADIAN FRUIT COMMISSIONER.

**T**HIS is truly a World's fair. The average American's idea of things is bigness, and that idea is carried out here in St. Louis to almost an extravagant degree. Magnitude seems to have been the end aimed at in the planning and execution of everything, and now the almost universal verdict is that the whole thing is too big.

The cloud-capped towers, the gorgeous palaces, the stupendous temples are planned and executed on such a magnificent scale that it may truly be claimed the world has never beheld the like before. But they cover too much ground, and one loses too much time and energy in getting from one to the other.

But all that aside, the readers of *The Horticulturist* will want to know where, amid all this magnitude and splendor, Canada comes in. In the common phraseology of the day, let me assure them that Canada is fully and emphatically "in it." No country or state is more so. And let me observe just here that nothing less than Canada has done would have sufficed to give that effect required at the present time. The name of Canada, and I might say the fame of Canada, has penetrated every quarter of the United States during the past two years, and every citizen of the United States has heard what is called here "the Canadian boom." What Canada is doing here at this

great exposition is practically substantiating all that has been heard of her boundless resources and the marvellous variety of her products. "These exhibits," said a prominent Cincinnati man, "tell us more than we have ever heard about Canada, and we can no longer doubt."

The majority of Americans were willing to believe that Canada could produce grain, live stock and agricultural products in almost unlimited variety, but they were scarcely prepared to believe that she could produce such a variety of fruits. "Does all this fruit grow in that cold country?" is the question that we have to meet continuously. That we are meeting and answering the question convincingly, may be gathered from the remarks that one hears on the streets, in the public places, and even from the pulpits sometimes, when the features of the fair come under observation.

### SOMETHING ABOUT OUR EXHIBITS.

Of the Canadian exhibits in the mining, agricultural and other departments I will merely say that they are attracting wide attention and provoking much favorable comment. The horticultural building, generally speaking, comes last on the list, and the visitor has seen pretty nearly everything before he comes to the fruit. We have the advantage, therefore, in getting the impression that he has already formed of Canada

before he reaches us. And this satisfaction is generally ours, that he never has to lessen his good opinion, but on the contrary his "astonishment" at Canada's display is considerably intensified.

Very few citizens from the south were prepared for so varied an exhibit of fruit from Canada. They did expect to see apples, but were quite unprepared for such a display of grapes and peaches. Without exaggeration or boasting I can say with pride that, barring California, no exhibit in the horticultural pavilion attracts so much attention or receives so many favorable comments for its variety and artistic arrangement as does the one that I have the honor to preside over.

Of the qualities of the Canadian display I will speak but briefly. From an Ontario standpoint I am not too well satisfied with it. If we had a few cases of those Canada Reds, Kings and Yellow Bellfleurs that I saw at Simcoe last fall we could easily beat anything in the building in these varieties. Even the Baldwins at Simcoe would give us second place, while now we hold about fourth. But, take the display as a whole, I can stand in the midst of it and say with pride to the visitor. "This is what Canada, my country, can do."

#### SOME CANADIAN EXHIBITORS.

Mr. Harold Jones, of Aitland, has done splendidly for us, his Scarlet Pippins and McIntosh Reds are greatly admired. Mr. Dempsey, of Trenton; Mr. Sherrington, of Walkerton; Mr. Woolverton, of Grimsby;

Mr. Stephens, of Orillia; Mr. Pettit, of Winona, and some others, also deserve special credit. Others worthy of mention may come to my notice as the cases come from cold storage and are opened.

At present we have 94 varieties of apples on display from cold storage, but many more than that in bottles. Apart from apples our bottle display comprises large collections of pears, plums, peaches, cherries, gooseberries, red and white currants, strawberries, raspberries, blackberries, cranberries, dewberries, blueberries, grapes, tomatoes, wax beans, green peas, snow-white cucumbers, rhubarb, strawberry-raspberry, and almost everything that is grown for household use. There is no such variety or collection shown within the exhibition grounds, and it is largely that feature, together with the arrangement in display, that attracts so much attention. Two opinions are freely expressed; first, that Canada has a surprising variety of products, and second, that Canadians have the faculty and enterprise for showing them to the best advantage.

May I add a word to readers of *The Horticulturist* who are intending to visit the fair and want only moderate accommodation. Take a Market street car at the Union station and go right out to the west end heights close to the agricultural entrance, and ample accommodation can be found within a few minutes in any direction at from one dollar a day up, meals extra at moderate prices.

Spraying is a live question with most fruit growers now, or should be, as the San Jose scale will force many to spray who never gave the matter a thought before. Where one has a lot of trees to cover the old hand pump must give way to the power outfit to insure the completion of the work in a reasonable time.—(Frank Blaikie, St. Catharines, Ont.)

I have about 450 apple trees and have a preference for the following varieties: Red Astrachan and Duchess of Oldenburg for the early varieties; Hulbert, St. Lawrence, Alexander and Snow for the autumn, and Ben Davis, Northern Spy and Grimes' Golden for winter use. These so far have given me the best results.—(Chas. Hay, Ontario.)

## THE MARKETING OF FRUIT

COMMISSION dealers who handle fruit on a large scale are often in a position to note methods of marketing, which result in the securing of advanced prices for fruit. Differences in the shape and size of packages, and of their construction, often materially affect the prices obtained for the fruit. In this connection some interesting information was given a representative of *The Horticulturist* recently by the manager for Messrs. McWilliam and Everist, commission dealers, of Toronto.

"It often pays handsomely," said this gentleman, "to have a lid on the fruit case. Where covers are nailed on they are frequently broken off by the customers in their desire to look at the fruit before making a purchase. Other customers who examine this fruit see broken covers and get the idea that the fruit has either been tampered with or rejected for some good reason by a previous intending buyer, and they immediately receive the impression that there must be something wrong with the fruit or that it is not as good as it appears. Where a case has a lid which can be readily lifted, any number of buyers may examine the fruit without in any way injuring the appearance of the package.

### THE BEST STRAWBERRY CASES.

"For the marketing of strawberries, 24, 27 and 36 quart cases, non-returnable, are preferable to the 54 quart case. They have a much better appearance and are always fresh and clean looking. They also save a great deal of trouble on the part of the consumer, who is not put to the bother of looking after the return of the packages.

After a 54-quart case has been used a couple of times it soon looks the worse for wear, especially if the customer, as some do, has used it for the holding of potatoes. A nice clean looking case of fruit will often bring a better price than better fruit marketed in dirty boxes, although good fruit

and good packages are both required to obtain the best prices.

### TOO MANY DIFFERENT SIZES.

"There are too many sized baskets used in the marketing of cherries, grapes, peaches, plums and pears. These include all sizes, from the 6-quart to the 14-quart baskets. The best and most popular sized basket is the 12-quart for the larger size and the 8-quart for the smaller one. It is well to have at least two sizes like this, for some buyers desire a large basket, while others prefer a smaller one.

"One of the greatest objections to having too many different sizes of baskets is the difficulty experienced in filling large orders with fruit packed in uniform baskets. It does not look well to fill a customer's order with different sized baskets. It always complicates matters when we are unable to fill our orders with baskets of the same size as those upon which we quoted prices, when taking the order. Confusion is also caused sometimes among the growers, who hear that we are paying one grower more for his baskets than we have been paying them. These men do not realize that the difference in the size of the baskets is responsible for the difference in price paid.

"The Ontario Fruit Growers' Association would take a progressive step were it to adopt a uniform basket in the same way it has adopted a uniform apple box. The same reasons which led the association to adopt a standard apple box apply in the case of the basket.

"Where there is uniformity in the size of the packages buyers order with more confidence as they know just what they will receive.

### WHERE LOSS OCCURS.

"One great objection to putting up cherries in large quantities is the tendency of this fruit to heat, which results in great injury to the quality. A great deal of money is lost by growers through lack of care in

picking cherries. From the appearance of the fruit when it reaches us it would seem as if these growers had simply grabbed the cherries from the trees, and I believe this is what some of them do. This treatment wounds the fruit and decay sets in inside of three hours.

"When fruit that has been picked in this way reaches us it is generally practically worthless. Cherries should always be picked by the stem, the cherry itself not being touched. The same care should be exercised in picking all kinds of fruit.

"Some of the 24-quart crates have a han-

dle which has many strong points. A hole is simply cut into the ends of the crate, large enough for the insertion of a man's fingers. This kind of a handle is never in the way, and does not take up any room. Another good kind of a handle is a wire one, which drops onto the top of the box when not in use.

"The wooden handles, which are used so extensively on 24-quart crates, often break. This makes it not only difficult to handle the boxes conveniently, but affects the appearance of the package. These handles are good except for this drawback."

## SPECIAL CARE NEEDED THIS SUMMER

HAROLD JONES, MAITLAND, ONT.

**O**WING to the severe injury received by fruit trees, as a result of the cold weather last winter, which resulted in the rupturing of the wood cells in the trees, it is necessary for us to pay particular attention this summer to the cultivation and fertilization of our orchards that as rapid a growth as possible may be brought about to cover the defective wood with new tissue. If this is not done there is danger that the trees will not recover their accustomed vigor and that they will go into next winter in a weakened state. In such a case conditions will possibly be worse a year from now than they are to-day.

During July I intend to follow up the thorough system of cultivation started in May and June, with the object in view of building up a good covering of new tissue

for the wood in the trees that were injured last year. Not later than the first of August I purpose sowing a heavy cover crop to ripen up this new wood growth and prepare the trees for the coming winter. There is nothing better for this than clover, either the common red or mammoth red; crimson clover is not hardy.

It is necessary to have the land in as fine tilth as possible, so as to ensure the germination of the seed and give vigorous growth. It has often been the case that where a heavy cover crop exists in the fall, serious injury is caused during the winter by field mice. To prevent this the trees can be easily and cheaply protected by wrapping them with building paper; not tar paper, which causes injury to the trunks of the trees.

Plums being so low in price, farmers are cutting many of their trees down. Black knot is a great drawback to plums. Many growers do not keep it down, and the law is not put in force.—(Henry Wiggins, Notawa, Ont.

Nine-tenths of our trees are not trimmed enough. I believe that if we would all trim trees more closely and head in or shorten the branches that this is the cheaper and most practical way to thin fruit.—(Robert Thompson, St. Catharines, Ont.

## WHICH SHALL WE USE, THE 28 OR 30 INCH BARRELS?

**A**LTHOUGH the standard apple barrel contains 96 quarts and is 28 inches high, the majority of Ontario fruit growers appear to prefer and to be using one of larger size, known as the 30-inch barrel. For this and other reasons the suggestion has been made that the Ontario Fruit Growers' Association should adopt the 30-inch barrel. The views of some of Ontario's leading fruit growers on this subject have been gathered by *The Horticulturist*.

"The 30-inch barrel," said William Rickard, of Newcastle, "contains several quarts of apples more than the standard 28-

"I prefer the 30-inch barrel over the 28-inch one," said Mr. W. H. Dempsey, of Trenton, "because it is the standard barrel in my section, and we have become accustomed to its use. Nova Scotia shippers have been using the 28-inch barrels, as have, I believe, the New England fruit growers. The result is that apples from these sections and from Ontario are often distinguished by the different sized barrels.

"Quotations in English catalogues show that Ontario fruit brings more than enough extra in price to make up the difference in the quantity of apples contained in the larger

barrel. As long as our fruit continues to bring the best prices I think we should stick to the barrel by which our apples are recognized.

"Another point to be considered is how the 28-inch barrel would effect the coopers. Were the 28-inch barrel to become generally used, coopers who happen to have considerable stock left at the end of the season, would be unable to use the extra barrels for shipments of sugar and flour, and the stock



**The Georgian Bay Fruit Experiment Station.**

A partial view of the orchard at the fruit experiment station in the Georgian Bay district, conducted by J. G. Mitchell of Clarksburg, is here given. Some 300 varieties of fruit are being tested. The orchard shown on the left side in the illustration contains four acres of such varieties of apples as Spy, Baldwin, King, Ben Davis, Golden Russets, Gravenstein, Rhode Island Greening and others. In the background are 1200 plum trees including 150 varieties all of which are labeled and numbered, that an exact record of each tree may be kept. There is a sixteen acre orchard of winter apple trees which cannot be seen in the illustration. It contains two blocks of dwarf pear trees of such varieties as Bartlett, Duchess, Louis Bonne, Clapp's Favorite and others. It has been found that pears have done as well at this station as apples, the results far exceeding expectations.

inch barrel. For myself, I rather like the larger barrel; it does not cost any more, either to buy, pack or ship.

"It is, I think, a little better appearing, and is likely to strike the buyer more favorably. In my section the larger barrel is used almost exclusively. I would like to see the Ontario Fruit Growers' Association adopt either one size or the other as its recognized barrel."

would be left on their hands. By using the 30-inch barrels, if they have any left over, they are able to utilize them for other purposes. The appearance of the 30-inch barrels is also nicer."

"I think it would be a great mistake were the apple trade of Ontario to adopt the 28-inch barrel," writes J. G. Anderson, of Lucknow. "The freight and other charges are the same on the larger as on the smaller



package, and we get more money for fruit in the larger barrel. If the department of agriculture at Ottawa desires a uniform package for the whole Dominion it should choose the 30-inch barrel."

Mr. J. W. B. Atcliffe, of Westmount,

Que., also favors the 30-inch barrel, although he prefers to ship Fameuse and early apples in boxes. Mr. F. E. Brown, of Mitchell, was the only shipper heard from who expressed a liking for the 28-inch barrel.

### Winter Killing of Apple Trees

PROF. H. L. HUTT, ONT. AGRIC. COLLEGE,  
GUELPH.

I have about 20 acres of apple orchards, planted eight years ago. Last winter the severe weather froze them in the crotches, and I am afraid they will be killed. The Starks, Baldwins and Artics are badly frozen. Some of the Baldwins are dead, and I fear I will lose the other varieties. In some cases I have cut away the dead bark and covered the spots with a solution of resin, tallow, turpentine and methelated spirits, to keep out the sun and rain. I notice the bark peeling off the upper side of the limbs and on the trunks in many instances. Do you think it advisable to trim heavily?—(W. H. Bentley, Prince Edward County.

The past winter has been an exceptionally severe one on nearly all kinds of trees, and it is doubtful if many of the tender varieties will survive the effects of the severe freezing. I find that Baldwin trees have suffered particularly in our experimental orchard at the college, nearly all of this variety having been killed.

#### LET NATURE HAVE HER WAY.

Probably the only thing that can be done is to allow nature to reassert herself. In cases where the bark shows signs of peeling off it would be well to tack it down or bind it firmly about the trunk and branches to prevent exposure to the sun and air. Where the injury is on the trunk it would be well to encase the trunks of the trees with boards and fill in next the tree with earth. This would keep the bark from peeling and protect the cambium layer from exposure to air.

Where the injury is in the crotches of the trees, it is more difficult to treat. Where possible it would be an advantage to bandage the injured parts with clay plaster, which would keep the parts fresh. In

cases where new growth does not start until quite late in the season, it is doubtful if they will recover sufficiently to stand another winter.

### Topping Apple Trees

"I AM in favor of the low topping of apple trees because of the great convenience in picking. When trees are low there is less likelihood of the fruit being injured in cases of windfalls." These views were expressed to *The Horticulturist* recently by Mr. William Rickard, M.L.A., of Newcastle, Ont.

"I have seen trees so trimmed," continued Mr. Rickard, "that pickers had to go up 12 to 15 feet to obtain any apples. In such cases the cost of picking amounts to nearly all the apples are worth. The only objection to low branches in the orchard is the difficulty experienced getting under the limbs for the purpose of cultivation. Trees, I am satisfied, will yield just as well when the branches are low as when they are high. I have had my Greenings so that I could stand on the ground and pick two barrels of apples from a tree.

"As regards the coloring, I find the Spy and red varieties generally will not color as well on low branches as on high ones, and for that reason I would not trim these varieties as low as the others. They may, in ordinary cases, be topped when the trunk is five feet high, which I think is high enough for any tree. I grow my Greenings low down on the ground and find they are not damaged in any way. They do not need the coloring the red varieties do."

## FRUIT GROWERS ARE FOND OF THE ROBIN

**A** VIOLENT agitation has been carried on during the past year by fruit growers in several states of the American Union to secure laws that would lead to a reduction in the number of robins, if not to their total extermination. It has been claimed that robins are very destructive to fruit.

The Canadian Horticulturist recently wrote to a number of leading Canadian fruit growers to ascertain their views. Some of the replies are here given, and the rest will be published in following issues. It will be seen that, with one or two exceptions, our Canadian growers are very fond of and appreciate the good done by our red breasted friend and his mate.

### FRUIT GROWERS' VIEWS.

Robins are not nearly so bothersome as the crows, nor do they eat as many cherries as the crows. Would dislike much to see any laws tending towards their extermination.—(R. J. Lightle, Brown's Nurseries, Ont.

The robin is the worst of all the small birds. I have some early cherries, but the robins get them all before they are fully ripened. I have a few sour cherries, but Mr. Robin will not touch them. There are a great many robins around our place, and I think it would be wise to reduce the number if possible.—(S. W. Brigham, Islington, Ont.

While the robins do sometimes take a few cherries, and an occasional strawberry, with sometimes a few grapes, in my personal experience I have never suffered any great loss from their ravages. I have always considered they do an immense amount of good by destroying large numbers of our insect foes. If it were not for the assistance we fruit growers get from our native

birds we would have to do a great deal more spraying and insect fighting than we have at the present time, and dear knows that's needless.—(F. A. Sheppard, Queenstown, Ont.

I have some five or six hundred cherry trees in two blocks, and a row of mulberry between. The robins go for the mulberry, and my cherries are safe. I suggest planting mulberry instead of killing the robins.—(G. Findlay, Walkerville, Ont.

### OPINION OF AN EXPERT.

Dr. James Fletcher, of the Central Canada Experimental Farm, Ottawa, writes The Horticulturist an exceedingly interesting letter strongly in favor of protecting the red breasted songster. He says: "The food of the American robin has been investigated by students of birds. In the stomachs of 500 robins, collected in various parts of the country, cultivated fruit formed less than 8 per cent. of their food, and practically all that was eaten in June and July. It was found that over 96 per cent. of their food in April, 97 per cent. in May, and over 43 per cent. in June consisted of insects. of which almost one-fifth to nearly two-fifths was injurious insects. In June they began eating fruit, cherries forming 14.6 per cent. and raspberries 36.6 per cent. of their food." From the evidence presented in Dr. Fletcher's letter it is safe to say that noxious insects comprise more than one-third of the robin's food, vegetable food nearly 58 per cent., wild fruits 47 per cent., and varieties that were cultivated a little more than 4 per cent. The Horticulturist will publish Dr. Fletcher's letter in a later issue.

The well known authority on birds, Mr. C. W. Nash, of Toronto, has also sent The Horticulturist a valuable statement on this subject, which sustains the position taken by Dr. Fletcher.

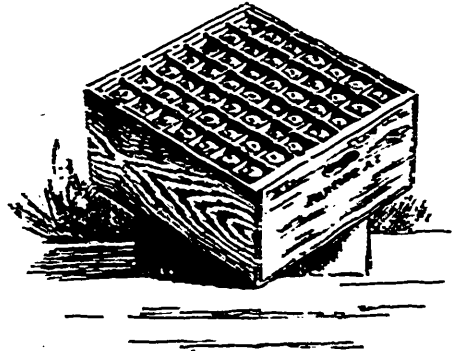
## FANCY PACKING

L. W.

I have thought out what I think is a new way of packing fruit in boxes; one which is clean, handy and cheap, and which will grade the fruit at the same time. I am sending by express a sample box with the packing. The packing will accommodate itself to pears as well as apples, which is one of its best features, and still grade the fruit. The boxes could be made any size and the packing according to kind and quality. I have to thank you for other valuable information furnished me in the past.—(Tom Gibson, Toronto.

The best methods of packing fancy fruit for export has been made a study by the writer for seven or eight years past. At first a box containing eight shallow trays was tried, in which the fruit was packed in a single layer. These cost about 40 cents for the box of trays and only held about one bushel. At the end of the season it was decided the box was too elaborate and cost too much money, and in this the English buyers concurred. Next came the Wilson box, with trays and cardboard divisions. These were similar to the Cochrane case, much used in Montreal, and shown in the illustration, but the trays or drawers were made to slide, a difficult thing to work without bruising the fruit. These cases are mentioned to show that the plan of packing proposed by our correspondent is not at all new. This package was given a thorough trial. While the

value of the little pasteboard cell for each individual fruit is fully appreciated, and while it might be a fine method of packing for export tender fruits of great value, such as our finest Elberta peaches, the package at that time was too costly to be used for apples and pears, but I understand some



The Cochrane Case.

This box for shipping fruit, fitted with trays and cardboard divisions, has been much used in Montreal. It is known as the Cochrane case. While excellent for costly fruits it is rather expensive for common use.

improvements have since been made and that the price has been considerably reduced. Indeed, no box for apples can be more desirable than the one now adopted by Ontario, of which the inside measure is 10 x 11 x 20 inches, while for pears a box just half as deep, measuring 5 x 11 x 20 cannot be excelled.

ting rid of them seems to be to dig them out with a knife.—(Robert Thompson, St. Catharines, Ont.

### Planting Peaches

J. L. HILLBORN, LEAMINGTON.

Would you advise the planting of many varieties of peaches?—Subscriber.

That depends largely on how you sell your crops. I grow a variety of crops and send out weekly quotations to my customers. By growing a number of varieties it is possible to have them ripen in succession, so that peaches can be picked every day.

I have not been troubled much by the peach tree borer. The best method of get-

I consider spraying, when it is properly and thoroughly done, to be of great importance. It must, in almost every case, be a great good; but, on the other hand, when carelessly, recklessly and improperly done, it will not only result in doing no good, but may cause very serious injury.—(Wm. Rickard, Newcastle, Ont.

## Free Sulphur in the Lime-Sulphur-Lye Wash.

FRANK T. SHUTT, M. A., CHEMIST, DOMINION EXPERIMENTAL FARMS.

HERE has recently been devised a method for the preparation of the California spray, which does away with the most troublesome part of the process, namely, the boiling. The union of the lime and sulphur is effected by the aid of lye, the modification reducing the time of preparation and simplifying the whole operation.

The efficacy of this wash, as in the case of the lime-sulphur-salt wash, for the destruction of scale insects undoubtedly lies in the sulphur compounds it contains—in other words, upon the degree to which the component elements have united in the preparation of this insecticide. With this fact in mind, it is important, therefore, to know, first, how completely the sulphur is combined when the modified method with lye is used; and, secondly, if the preparation can be kept for any length of time without a marked separation of the sulphur.

Last November a quantity of the wash was prepared, using the lime, sulphur and lye in the following proportions: Lime, 40 parts; sulphur, 20 parts; lye (caustic soda), 10 parts. A sufficiency of water was employed to allow the proper preparation of the compound, but the water requisite to bring it to the right strength for spraying was not added. As made, it was an orange-red mass of a stiff, pasty consistency. Analysis showed it to contain, approximately, 50 per cent. water, and further, that traces only of sulphur existed in the free state.

This pasty mass (which contained, approximately, 15 per cent. of combined sulphur), was placed in a large, glass-stoppered vessel to protect it from the air, and allowed to remain in the laboratory all winter. On April 15, practically 5 months

after making, it was carefully examined for free sulphur, and as a result 0.5 per cent. was found to be present. It is evident from the foregoing (1) that in the preparation by the use of lye practically all the sulphur may be brought into combination; and, (2) that when preserved in the pasty condition, out of contact with the air, no appreciable amount of sulphur separates for a considerable length of time.

It should not be inferred from the foregoing that it is advisable to make more of the mixture than is required for immediate use. Exposure to the air, as in a barrel, will, undoubtedly, cause deterioration. The evidence here brought forward, however, may prove of service to those who have thought that the efficiency of the spray is dependent upon its application within 24 hour or two of its preparation.

## Hogs in the Plum Orchard

PROF. H. L. HUTT, ONT. AGRIC. COLLEGE, GUELPH.

What is the cause of apple trees dying in the orchard? The trees are 10 to 15 years old and fully four feet in diameter. Hogs used to run in the orchard. The bark of the trees near the ground is gone. Can the hogs have done this? —(M. A. H., Oakville, Ont.)

It is quite possible that hogs may have girdled the trees, as they will frequently do this if pasture or feed becomes at all scarce, and sometimes for no other reason than for mere hoggishness. If the bark has been destroyed all around the tree there is no hope of saving the tree except by bridge grafting.

Scions for this purpose should be cut long enough to bridge the injured portion and should be inserted beneath the bark above and below the injury, and then bound firmly with bandages, in which moist clay is held, firmly about the trunk. If the injury has been done so long ago that the tops are already dying, it will be too late to save the trees in this way, but trees recently girdled can be saved by bridge grafting.

## ENGLISH FRUIT GROWERS AND FLORISTS FOR ONTARIO

“DURING the past two years 150 to 300 British people have emigrated to Ontario as a result of the work of the agents of the Ontario government in England. I know personally of at least 160 who have come out this year, and while it is difficult to give any estimate, I feel satisfied that upwards of 300 have actually come over. Of this number, possibly one-third have been men interested in fruit raising and the growing of vegetables under glass and cloth.” These remarks were made to *The Horticulturist* recently by Mr. M. E. Kyle, of Oakville, Ont., who has just returned from Great Britain, where he has been since last November in the interests of the colonization department of the Ontario government.

“I find,” continued Mr. Kyle, “that a great many people living in the Channel Islands of Jersey and Guernsey, who make a specialty of raising potatoes, tomatoes, and early vegetables and grapes all under glass, are becoming deeply interested in the chances for fruit and vegetable raising in Ontario. While I was in their sections these people asked me a great many questions about Ontario, and a number decided to come over. As a result of our work a year ago 50 to 60 families from these sections are already located on some of our Ontario farms. When I am asked for information regarding openings for this work in Canada I always advise intending settlers to arrange to work for a year at least for

some of our practical fruit growers before buying ground and starting for themselves.

### ORCHARDS NOT WHAT THEY MIGHT BE.

“While travelling through Somerset and Hereford I was greatly surprised at the condition in which I saw many of the fruit trees. It is scandalous the way they are neglected. Many of the trees were covered with moss and apparently had never been pruned. I did not see a decent orchard. The growers informed me that they simply raised apples for cider, and that therefore they did not give the trees the care and attention they otherwise would. Of course this lack of attention on their part is all the better for our Ontario growers.

“English farmers never grow Spy, Baldwin or Greening apples, and do not seem to want these varieties. It may possibly be that these apples do not grow well there. The most popular local varieties seem to be the Russets, Blenheim Orange and Ribston Pippin. Even in the good orchards, the people do not seem to give the trees the same care and attention we do in Ontario. I think this is largely due to the fact that most of the farms are rented, and the tenants do not feel like improving land which does not belong to themselves.

“There are some extremely large strawberry plantations. I visited one place near Chester where a man had over 800 pickers employed yearly. Near Stanley, in Kent county, is another large strawberry center, as well as in Cambridgeshire.”

**Cultivate Plum Trees.**—Some of my plum trees are growing in the fence rows and receive no cultivation, but seem quite healthy. Others receive the same cultivation as my apple orchard, viz.: one orchard is sown with peas during the last of May. The hens and hogs are allowed to harvest the peas, which are not plowed until the following May. The other orchard is well cultivated during June and part of July, and

then seeded to crimson clover mixed with a small quantity of red clover and allowed to stand until the following June.—(D. James, Langstaff, Ont.)

To make apple raising profitable we must be able to secure a crop every year, and with proper care and attention there are plenty of varieties that will bear annually.—(J. S. L., Bartonville, Ont.)

### Best Fruit for Eastern Ontario

“**A**PPLES are certainly the most profitable fruit to raise in the St. Lawrence valley, particularly the Fameuse and varieties of that family, such as the McIntosh, Scarlet Pippin and Shiawase. These varieties attain a greater state of perfection in this section than in almost any other part of the province.” These views were expressed recently by Mr. Harold Jones, of Maitland, to an editorial representative of *The Canadian Horticulturist*, who visited his place.

Mr. Jones conducts one of the fruit experiment stations, and is doing an invaluable work. It is probable not another station in the province is obtaining better results. Mr. Jones has devoted five acres of the best land on his farm to experimental work, and is thoroughly versed in the results of all the experiments he has conducted. Some of the results he has obtained have already been of great value to the fruit growers in the eastern part of the province, some of whom have driven distances of 25 miles to secure his advice as to the best varieties to grow.

“The Fameuse and kindred apples,” continued Mr. Jones, “from a commercial standpoint, are of as much value to the growers of eastern Ontario as the Baldwins, Spys and Greenings are to the growers in the rest of the province. Most of the varieties of apples in my experimental orchard are proving hardy. Winter injury is noticed on the Ontario, Blenheim, Pippin, Downing, Winter’s Maiden Blush, Sutton Beauty, Stark and Rolph. In this part of the province there has been some serious injury by frost to the Fameuse and Scarlet Pippin, which were overloaded in the summer of 1903. Where trees were not debilitated by over loading they are in fairly healthy condition, with good prospects for a full crop this year.

As a result of the severe winter it would appear that as a whole European plums are not satisfactory for this section of the province. The Japanese plums, with the exception of one or two varieties, are proving almost as tender as the European.

Very good plums of the Americana class can be grown here successfully, as they are proving hardy in wood and bud. Some are of very poor quality. Among the better varieties may be mentioned the Whittaker, Hammer, Stoddard, Wolfe and Wyant. Among the better known European plums that were winter killed are the Communia and Coe’s Violet.

#### PEARS HAVE BEEN INJURED.

All the varieties of pears have been more or less injured in the fruit buds, except the Russians. The hardiest varieties, or varieties that came through with the least injury, are the Flemish Beauty, Clapp’s Favorite, Ritson and Sudduth. These are pears of good quality. Experiments with five or six varieties of the Russian pears indicate they are not a desirable fruit for Ontario, as their flavor and texture are very inferior.

### When to Stop Cultivating

PROF. H. L. NUTT, ONT. AGRIC. COLLEGE,  
GUELPH.

What time of the year should I cease cultivating my orchard?—(W. T. Nutt, Zenda, Ont.)

Cultivation in the orchard should cease about the middle of July, depending somewhat upon the locality and nature of the season. If continued too late it stimulates late growth of wood, renders the trees liable to winter killing, and does not allow of a good catch of cover crop, which should be sown as soon as cultivation ceases.

If we leave our apple trees to take care of themselves they will produce a large crop of inferior fruit one year and none the next. The orchard that is managed in this way will be very unprofitable.—(J. S. L., Bartonville, Ont.)

## Should our Farmers Raise More Fruit?

D. JAMES, LANGSTAFF, ONT.

**W**HETHER or not the average farmer should raise more fruit depends largely on his individual circumstances. If a man has a fair sized farm and not much help of his own, with little prospect for securing any, most decidedly it would not pay him to raise more fruit. The care, the harvesting and the marketing would interfere with farm work and loss be sure to follow.

I believe in fruit and plenty of it for the farmer, but not one farmer in 20 is qualified or has suitable appliances to carry on so many branches of agriculture and horticulture. If a man has help or prospect of help, and a small farm, or can get help from a near town or village, he may well raise more fruit, but paying \$1.25 to \$1.50 a day and board, or \$30 per month with board for eight months, which many pay, is too much.

### WHERE PROFITS GO.

There is a prospect for a demand for fruit in the northwest, but the railroads will absorb the profits in freight charges.

Sections of the country that are extra well adapted for fruit should be given up to that industry. Spraying could be done more cheaply, the marketing could be better attended to, the buyers would know where to go, and better rates in freight might be procured.

I believe in mixed farming, but there is danger of getting it too much mixed. It is nice to have plenty of honey and strawberries on the farm, but the farmer who is going to be successful with either one must not allow seeding or harvesting or threshing or corn cutting or root hauling to interfere with the care of his fruit. Every farmer should have plenty of fruit for his own use and some to spare: but if he goes further he should first count the cost.

## Does Cultivation Promote Scab?

**I**N the opinion of Mr. A. W. Peart, of Burlington, clean cultivation in the orchard has a tendency to promote scab. "It is my belief," said Mr. Peart to *The Horticulturist*, "there has been too much clean cultivation. I have been keeping my orchard cultivated for 15 years.

"If anything green is on the soil it has a neutralizing effect on vapors arising from the soil, which tend to promote scab. I think that the finest lot of apples sent to the old country last year came from an orchard which had been in oats. I firmly believe that clean cultivation promotes the scab."

## Winter Killing of Pear Trees

PROF. H. L. HUTT, ONT. AGRIC. COLLEGE,  
GUELPH.

Two or three years ago I set out a few hundred pear trees. Up to the present they have done very nicely, but this year there seems to be a blight attacking and killing them. The leaves curl up and gradually turn black, and shortly the whole tree dies. I will be very much obliged if you can give me any receipt for spraying that will counteract this.—(C. C. Simcoe, Ont.)

The dying of your pear trees is probably due to winter killing, the same as that of plum trees. The past winter has been one of the most trying experienced in many years, and reports are coming in from all over the country that pears, plums, and even tender varieties of apples, have been seriously winter injured.

In many cases the killing has not been outright, and the trees did not show the injury at first except in the blackened condition of the wood, which may have been noticed at pruning time, but now that the foliage should be in good condition the trees are showing lack of vigor and many of them will succumb before the end of the season. The experience of last winter should teach us many valuable lessons as to what are the "iron clad" varieties.

## ORDERING APPLE BARRELS

"I LIKE to order my apple barrels as early in the season as possible," said Mr. W. H. Dempsey, of Trenton, recently to *The Horticulturist*. "I have sometimes," he continued, "had them all made up in May and always have them completed before August. There are many advantages gained in this way. The timber smell has all passed off, so that when the apples are placed in the barrels they are not likely to become tainted with any odor. It is easier

will have to make it well, or it will go to pieces on his hands before he will be able to sell it.

### A BETTER BARREL.

"I prefer the eight-hoop barrel, as while it costs me about three cents more to manufacture, it is much stronger than the six-hoop barrel. It stands shipment so much better that the difference in the cost price is more than made up. Coopers here are asking 45 cents for manufactured barrels, compared with 35 cents at this time last year, and I believe that this price is likely to go up at any time.

"I prefer to have my barrels made up on my own farm, because it enables me to inspect them all. I buy the material and have a cooper come to my place and do the work. If I find a cooper is using some inferior lumber I reject the barrels and send them back into the shop. He soon learns that I will only accept good work, and culls out the poor and cracked staves. I would rather lose the poor staves and have a strong tight barrel than accept one with holes and cracks in it. When barrels are turned out



### An Old St. Lawrence Landmark

Few occupied houses in the province are in as good a state of preservation and as old as the one here shown. It is owned by Mr. Harold Jones, of Maitland. Mr. Jones' great grandfather, with his wife and mother, moved to the farm in 1783, drawing 1000 acres of land from the government. The residence here shown was built in 1796, and is consequently 108 years old. It faces and commands a lovely view of the St. Lawrence river. Mr. Jones' four children are the sixth direct generation that has lived on the farm. Owing to portions of the original estate having been bequeathed to sons and daughters, the farm now contains only 64 acres. Not a single acre of the first 1000 has ever been sold. Mr. Jones conducts one of the provincial fruit experiment stations. He has about 1100 trees of all kinds but devotes most of his attention to apples. Five acres of the farm are devoted to the experimental work. Mr. Jones is increasing his fruit acreage every year.

to secure help early in the season to manufacture the barrels, and the material can generally be obtained at lower prices. The barrels are also set up better, inasmuch as they are not thrown together the way they often are late in the season when there is a big demand for them. A cooper who makes a barrel early in the season knows that he

by the factory all the timber on hand is used by the cooper, with the result that many of the barrels are made very poorly. Growers who buy from the manufacturers have to take what they can get, and consequently are unable to obtain as good stock as they otherwise might."



## Good Results from Japanese Plums

W. D. A. ROSS, CHATHAM, ONT.

I HAVE tried a good many varieties of plums in a small way, and each season confirms my good opinion of the Japanese varieties. The Burbank, Abundance, Wickson, Red June and Climax are my favorites thus far.

In some districts there is a prejudice against the Japanese varieties for two or three reasons; early blossoming perhaps being the principal, but in this section they give two or three times the crop the European sorts of the same age do.

I esteem the Burbank very highly. It is a steady and heavy cropper, good shipper and good seller. The buyer asks for it the following season too, which is a very good sign. Abundance, when fully ripe, for near market is also an excellent plum; Wickson and Red June are good, and Climax, which has only fruited one season, has done well.

The blossoms of these varieties are scarcely ever injured here by late frosts. The trees seem perfectly hardy, are good thrifty growers, and come into bearing at a very early age. The quality of the fruit quite equals that of most European sorts.

Among the older varieties, Reine Claude, Imperial Gage, Yellow Egg, Niagara and Guin are favorites. If I were confined to two varieties for general use and market they would be Burbank and Reine Claude. The very early varieties have not proved as profitable as the mid-season and late ones, as the demand early in the season is limited.

As to fertilizers, I have never used anything but stable manure, which with clean cultivation seems to produce good strong growth and abundant crops.

The plum rot has proved a much more difficult thing to combat than the curculio. Last season the curculio did little damage, at least the crop set so heavily that there were plenty left after they had destroyed

their share, but rot developed badly, especially in the Lombards. Bordeaux mixture was used as a preventive, but even with this it was a very difficult matter to keep it in check.

In this respect too the Japan varieties have a great advantage, as they do not seem to be affected with rot nearly as badly as European sorts. There are decided profits in Japan plums. Europeans are questionable, at least with the varieties which go to make up the average orchard.

## Management of Small Pear Orchard

FRANK J. BARBER, GEORGETOWN, ONT.

MY pear orchard is small, containing some 50 trees in all, so I look to our home markets for the disposal of my fruit. For this reason, when starting, I selected varieties of superior quality, such as Clapp's Favorite, Sheldon, Seckel and Flemish Beauty.

The Flemish Beauty has done particularly well, and finds a ready sale as a canning or pickling pear. For eating out of hand the little Seckel comes first for quality, with Flemish Beauty a good second.

I spray three times with Bordeaux mixture and paris green; first, just when the leaves are coming out; second, before the blossoms open, and third, just after the blossoms fall. The Flemish Beauty trees are sprayed once or twice more at intervals of 10 to 12 days with Bordeaux to keep the pear scab from developing. For pear psylla and aphis I spray with whale oil soap solution, 1 pound to 7 gallons of water, as soon as they appear.

The orchard is not cultivated. It has been seeded down to Lucerne clover for eight years. In the spring a limited amount of well rotted manure is spread around the trees to act as a mulch. Since adopting this method there has not been the least sign of pear blight. This is probably due to the fact that plenty of the Bordeaux mixture has been used every year.

## JAPANESE PLUMS NOT RECOMMENDED

J. G. MITCHELL, GEORGIAN BAY FRUIT STATION.

**A**FTER a careful test of several years with many of the leading varieties of Japanese plums, I find them sufficiently hardy, exceedingly strong growers, wonderfully productive and strikingly handsome and attractive. Their quality or flavor, however, is so much against them I could not recommend them for extensive planting in the commercial plum orchards of Ontario.

Where they are best known they are the least wanted, in fact some of our lake traders will not buy them at any price if they can obtain anything else. They say they are poor plums and hard to sell.

### THE BEST VARIETIES.

The following varieties I have found to be the best, after full tests: Abundance, tree a strong upright grower; fruit, when well grown, large and beautiful; color, yellow or amber, overlaid on the sunny side with dots and splashes of red; flesh, extremely juicy, a delicious dessert plum to eat fresh from the tree. That is about all it is good for. It is too poor for a shipper.

Burbank: One of the strongest but most spreading and sprawling growers in the orchard. It is a great bearer, but to produce the finest fruit the tree should be severely thinned. Quality of fruit fairly good. It is attractive in color and a good shipper, making it one of the best of the Japanese.

Red June is the earliest good plum we have; also the most desirable of the Japanese varieties. Tree is a strong grower, forming a large well-shaped top, bears the third or fourth year and abundantly. Fruit is medium to large, color bright red, quality fairly good. It is more like the European than any other Japan plum, except Wick-

son, which we have not fully tested yet, and which we think will be too tender for here. Season, first two weeks in August.

Orient is a very handsome symmetrical grower and fairly vigorous; fruit as large as the Burbank, but much more even in size. It resembles the latter variety closely.

Chabot: This is a very hardy, strong grower, forming a handsome and symmetrical top. It bears the third or fourth year. Fruit about the same size as Red June, not quite as corical, sometimes very large when trees are young. Skin is amber and well covered with splashes and markings of red, making it most attractive. In quality it is about the best of the Japans, and it is a regular and abundant bearer, in fact, inclined to overbear. September is its season.

Hale's Japan is a strikingly handsome fruit, but far too juicy for a shipping plum; good for dessert, and like Abundance, one tree would be nice in the home grounds.

Satsuma or Blood is a most remarkable fruit tree, a strong spreading grower, but not so much so as the Burbank. It is a great bearer of fruit, and if not too heavily loaded the plums will be large. The color is dark maroon, covered with a light bloom. Quality of fruit, when fully ripe, is fairly good; season, middle of September.

Although Japanese plums are proving quite hardy, strong and vigorous, regular and most abundant bearers, strikingly handsome and attractive in appearance, yet they are indifferent in quality or flavor when compared with the Europeans which ripen their fruit at the same time. Were I planting another plum orchard, and I likely shall, I would put very few, if any, Japanese plums in it.

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I have taken *The Canadian Horticulturist* for many years and like it well.—(Kenneth Cameron, Lucknow, Ont.)

You should receive *The Horticulturist* promptly on or about the first of every month. Do you? If you don't, let us know.

## A FARMER'S STRAWBERRY BED

WILLIAM SCOTT, ERAMOSA, ONT.

**T**HE strawberry is perhaps the most highly prized of all the small fruits that come to the table. A very little sacrifice of time and money would suffice to bring fresh strawberries to every farmer's table during the strawberry season, as well as to enable the farmer's wife to put by a store for future use.

The land for my own little plot faces the southeast and is a rich, warm, loamy soil. It is given a generous coat of well-rotted stable manure early in the spring, and plowed, cultivated and harrowed until the manure is thoroughly mixed with the soil. The treatment is much the same as would be the case were the land being prepared for a crop of roots. The amount of preparatory work required will depend largely on the plot of ground at the start. If weeds of any kind appear, further cultivation will be required.

### SUMMER CULTIVATION.

About the end of August put the cultivator and harrows on again, getting the soil into as fine tilth as possible; then roll it before planting, which should be done, if pos-

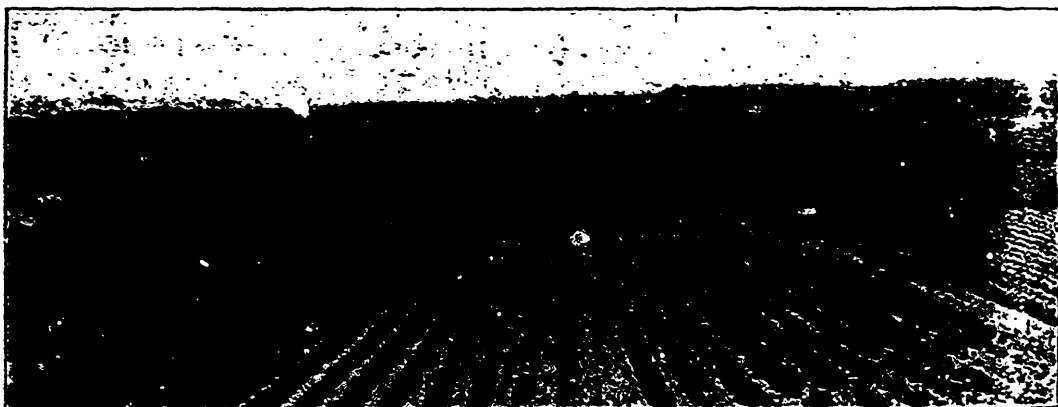
sible, after a shower. I leave  $3\frac{1}{2}$  feet between the rows and plant 18 to 20 inches apart in the row. For some varieties which propagate rapidly perhaps a greater distance apart would be advisable.

When planting, dig the holes with a spade, spread out the roots and pack the soil firmly about them. After planting, keep the hoe going as often as possible to assist nature in her work. My plants grow in a matted row about 15 inches wide, and each plant has about 4 or 5 square inches of space. Late in the fall mulch with horse stable manure to protect plants during winter.

### SATISFACTORY VARIETIES.

The varieties I prefer for table use are Jessie, William Belt, Clyde and Brandywine, all of which may be had at a reasonable price from a reliable grower.

If any farmer is willing to take time to prepare and plant the plot, with a little effort in the way of hoeing and picking, he will be amply repaid for his labor by the rich luscious fruit that will grace his table four or five weeks during the summer.



**A Glimpse at Some of Ontario's Noted Vineyards.**

This illustration gives an excellent idea of the extent of the fruit interests in the vicinity of Winona, Ont., near the extreme western end of Lake Ontario. Portions of the fruit farms of Messrs. E. M. Smith, Ira Van Douzer and R. R. Smith are shown.

## MARKETING THE CHERRY CROP

**I**N some portions of Prince Edward, Hastings and Northumberland counties, fruit growers of late years have considerably increased their cherry acreage. About 25 years ago both red and black cherries were largely grown in these counties, but the black knot destroyed so many orchards that growers became discouraged, and during the last 20 years comparatively few have been produced. Now that it is recognized that there is no difficulty in keeping down the black knot by thorough spraying, greater interest is being shown in the crop and the area under cherry trees is being considerably extended. Speaking on this subject to *The Horticulturist* lately, Mr. W. H. Dempsey, of Trenton, said that some growers in his section have lately set as many as two or three acres to cherries.

"The only drawback I have found with this crop," said Mr. Dempsey, "is the expense of gathering. Many of the cherries grown in this vicinity last year were shipped to Toronto, Peterboro and northern towns. Girls, I believe, make the best pickers, because they can be obtained more cheaply and are easier to get. I get my neighbors' girls generally to help me with the work. Although they don't need the money, they are generally willing to assist.

### ARE GIVEN LIGHT LADDERS.

"To lighten the work for the girls I furnish them with step-ladders that they can handle easily. These ladders are made by myself and are five feet high, enabling the girls to reach fruit ten feet above the ground, which is generally sufficient. The girls pick apples in the same way. The only

drawback I find in using girls to pick the fruit is that they are not strong enough to carry the fruit around and load it on the wagons. Men are always required for this work. I used to pay girls 75 cents to \$1 a day, but now the common wage is 75 cents to \$1.15. In picking apples I have had gangs of girls that would average 20 barrels for each girl a day.

### THE BEST TIME TO PICK.

"I prefer to pick the cherries when the fruit is cool, either in the morning when the dew is off, or in the cool of the afternoon and early evening. The trouble is we can seldom do this, as it is generally necessary to put in the full day at this work. By picking in the cool of the day, the fruit keeps much better.

"Aside from the trouble in gathering, cherries compare very favorably in point of profit with any other of our fruit crops. Early Richmond give me the best results. It is the only variety I would recommend to be planted around here. It is hardier than the others, so the buds will stand more frost. Some other varieties are sweeter and a trifle larger, but they winter kill.

"Cherries will be a light crop with me this year. All the varieties had blossom buds, but were destroyed more or less by the severe winter. Two Russian varieties I received as premiums from *The Horticulturist* have bloomed more highly and were less injured by the winter than any other trees in my orchard. I do not expect to secure 10 per cent. of a crop. Most of the other cherry orchards around here seem to be affected about the same."

In fertilizing my cherry trees I first use barnyard manure, later sowing red clover and finally oats. About the first week in June, when the oats are 6 to 8 inches high, I turn in the pigs. Late in the fall this crop is turned under. A disc harrow is used in the spring.—(John D. Wigle, Kingston.

I would rather take chances on raising grapes for profit than any other kind of orchard fruit, as the crop is more certain and the principal labor is performed at the seasons of the year when one can best afford the time to attend to the vineyard and the crop.—(Aaron Cole, St. Catharines, Ont.

### Pruning Blackberries

“**S**PEAKING from a commercial standpoint,” says Mr. A. W. Peart, Burlington, “the leading varieties of blackberries are Agawam, Kittatinny, Ohmer, Snyder, Stone’s Hardy, Taylor and Western Triumph. My blackberries are summer pruned in early July. I cut back the suckers to three or four feet high, causing them to send out laterals and form a stout sturdy tree. In March or April I again prune back the longer laterals.

#### THE BEST RASPBERRIES.

“Since 1895 I have tried 20 varieties of raspberries, and find the Cuthbert and the Marlboro the best. The Marlboro is earlier and firmer and can be readily seen by the pickers. The bushes are not so leafy as those of the Cuthbert.

“Both are large berries. The Marlboro is about ten days earlier than the Cuthbert. Give the Marlboro good well-drained soil, with liberal manuring, and there is no better berry in Canada.”

### Picking Strawberries

J. O. DUKE, OLINDA, ONT.

**A** STRAWBERRY patch may be picked twice; sometimes a third crop is profitable. My patches are usually run out by clover, and the third year make a better pasture than berry patch.

I pick in quart boxes, each picker being provided with a carrier holding six boxes. The pickers are given a ticket, on which they receive credit for fruit picked. The number of quarts picked is punched in the margin of the ticket. These tickets, when the numbers have all been punched out, are worth five dollars.

#### THE BERRIES ARE PICKED CAREFULLY.

I pay two cents per quart for picking, and have it done right. The pickers are required to exercise care both in handling the fruit and in filling the boxes. The fruit is

packed in crates holding 24 boxes, and shipped to points north and east, where I always find a good market, my berry season being over before they start to ripen even at London. For varieties I plant mostly early kinds, Bedar Wood, Crescent, Mitchell’s Early and Tennessee Prolific being good standard early varieties, with Williams to finish up on. Williams is the best bearer and long distance shipper I have ever grown.

### Black Currants Unfruitful

PROF. H. L. HUTT, ONT. AGRI. COLLEGE, GUELPH.

I have about 20 black currant bushes, set out four years ago. They were full of green currants the last four years, but all dropped off. They were full of blossoms again this year. Why do they not bear? There are no insects on them.—(A. S., Winger, Ont.)

I am somewhat at a loss to account for the unproductiveness of your black currant bushes. Your experience has been the same as that of a number of others. In speaking of this subject some time ago with Mr. E. D. Smith, proprietor of the large nurseries at Winona, he told me that he once had a number of black currant bushes growing on heavy land on “the mountain” which always bore an excellent crop, and, to increase his plantation of them near at home on what he thought more genial soil, he propagated from these bushes extensively; but when planted in good rich soil below the mountain they proved quite unproductive. He was inclined to believe that it was very much a question of suitability of the soil.

One of the finest crops of black currants I ever saw was growing on heavy clay soil in Algoma. When the bushes are on rich, loamy land they are inclined to produce wood rather than bear fruit. Some have attributed this lack of productiveness to lack of fertilization of the blossoms. This may be the case in some instances, but if this were the cause in your case the green berries would hardly be formed, or, at least, they would not grow to any extent.

I am inclined to believe that the first thing necessary is to get some of the most productive varieties, plant them upon good heavy soil, and do not stimulate an excessive growth of wood; keep the bushes well pruned out so as to allow for the fertilization of blossoms, and guard against the aphid, which is one of the most troublesome insects upon these bushes. If under these conditions the bushes are unproductive, I know of nothing better than to root them up and try again on other land.

### Cultivating Gooseberries and Currants

S. SPILLETT, NANTYR, ONT.

**I**N the June issue of *The Canadian Horticulturist* Mr. William Fleming, of Owen Sound, advised the stirring of the soil about gooseberries and currants in the spring. I followed this method until about 15 years ago, when the loss of three successive crops of gooseberries after the berries were as large as peas, opened my eyes.

This accounted for entire crops of black currants and Fay's Red currant dropping in the same way. The Shaffer and Columbia raspberries will not tumble off, but the crop is greatly lessened.

My rule now is not to stir the soil about gooseberries or the Shaffer or Columbia raspberries in spring until after the fruit is picked. I have never failed to have a good crop of Pearl and Red Jacket since I have followed this method. My big crops have been when the bushes are kept mulched.

I make it a practise to thin my peach trees whenever necessary, endeavoring to get the work done as soon as possible after the June drop. I thin to not less than six inches apart, which is scarcely thin enough unless the trees have a thorough pruning.—(W. D. Culp, Beamsville, Ont.)

### The Best Paying Currants

**I**N growing red currants," said Mr. A. W. Peart, of Burlington, who is considered quite an authority, to *The Horticulturist*, a few days ago, "the best money-makers in my experience have been the Wilder, Cherry, Pomona, Fay's Prolific and Red Victoria. The North Star, too, is a good variety, its merit lying in its being late.

"In white currants there are two standard varieties—Imperial and Grape. The Imperial is a larger fruit, but not so productive as the Grape. In black currants the best commercial varieties are Saunders, Naples, Black Victoria and Collins' Prolific.

"As regards cultivation, my practice is to plow to the rows in the fall to form a watershed. In the spring I start cultivation as early as possible, which tends to level the ground down again. Up to ripening time I cultivate lightly every ten days to keep moisture in the soil."

### Profitable Returns from Cherries

**C**HERRIES do not require as much attention as other fruit," said Mr. A. E. Kimmins, manager for Mr. E. D. Smith, of Winona, to *The Horticulturist* recently, "but are a little more expensive to pick, as the fruit is so small. Early Richmond for an early variety, and the Montmorency for late maturity, are two of the best kinds. The English Morello is also a good late cherry.

"The Dyehouse matures even earlier than the Early Richmond. These varieties are all hardy and can be grown almost everywhere apples can. From 17 cherry trees of the Montmorency variety on our farm, which are ten years old, last year we procured 192 baskets of cherries which sold at an average of 75 cents per basket.

"These trees have been bearing since they were four years old, and last year's crop was the largest on record."

### Care of the Strawberry Patch

J. H. DAVISON, MT. FOREST, ONT.

**T**HE soil in which my strawberries are grown is number 1 clay loam, very dark, with marl and gravelly subsoil. This is thoroughly tile drained every two rods, and the land has a good fall.

The ground I purpose planting to strawberries in 1905 is planted to celery this season, and on this ground no weeds are allowed to seed and very few to grow. It is plowed in the fall and again in the spring, and worked thoroughly. As soon as land is fit it is marked off 4 feet apart, across lot in rows 30 rods long. Runners from last season's growth are planted fourteen to eighteen inches apart in the rows.

The land being rich and clean, they grow rapidly, and if the season is at all favorable they mat pretty thoroughly about 2½ feet. This gives an excellent crop of very large berries if a good dressing of unleached hardwood ashes is given.

As soon as the crop is picked all vines, weeds, straw, etc., are plowed under and the ground sown with rye (fall rye) for fall feed for cattle, and also for feed the following spring. In this way only one crop is picked from each planting. It is cheaper and better to plant every year than to try and clean up an old patch. I plant only one variety, the Williams.

**Success With Black Cherries.**—I have 1,000 black currant bushes in bearing. They are a good paying crop when given good cultivation. Part of my plantation has been in bearing for about 15 years, and is not doing as well as formerly. Every spring I trim each bush to four or six stalks, keeping the old wood well cut out and leaving at least two new stalks every season.

My soil is heavy clay. The varieties grown are Lee's Prolific, Black Naples and Black Champion." — George Stevenson, Freelon, Ont.

### Grapes That Turn Black

PROF. H. L. HUTT, ONT. AGRI. COLLEGE,  
GUELPH.

Some of my grapes turned black in the bunches last year. Can you give me a cure? —(James Symington, Port Dover, Ont.)

This information is not sufficient to enable me to reach a satisfactory conclusion as to what the trouble is. It is quite likely that the disease may be the grape rot, which is a very difficult disease to combat successfully. Spraying with Bordeaux mixture is one of the best preventives. Where the disease becomes serious the diseased berries should be gathered and burned to prevent its spreading.

### Landscape Gardening in Cities

P. G. KEYES, OTTAWA.

**P**EOPLE who are compelled to reside in the city upon lots of small dimensions cannot undertake a system of landscape gardening in its broadest scope; nevertheless, there are a few rules and fundamental principles that are quite as applicable to the small lot as to the great estate.

Of the two kinds of landscape gardening, the natural and the formal, I prefer the first mentioned. This consists in re-arranging existing natural forms with a desire to create new beauties, to combine flowers, shrubs and trees so as to produce an æsthetic effect. In the first place it is necessary to avoid straight lines.

It is a mistake to fill every available space with trees and plants, but instead, try to create a picture, using the green lawn for your canvass and framing the whole by a well massed border, planting tall shrubs or trees to screen objectionable features nearby, and low plants so as to appropriate to your view some desirable feature of the surroundings. Use hardy plants and shrubs for the borders and plant groups, not individuals. Nature rarely scatters her plants.

## HOT WEATHER PLANT AND FLORAL NOTES

WM. HUNT, ONT. AGRIC. COLLEGE, GUELPH.

A GOOD method of disposing of a few window or house pot plants during the summer is to place the pots with the plants in them in an ordinary window-box made deep enough so that the rims of the pots are about on a level with the edge of the box. Fill in the spaces around the pots with common moss or sphagnum moss; the latter can be obtained at any florist's. The moss should not be packed too tightly in the boxes or it will rot and decay.

I have known sawdust to be used for packing around the lower part of the pots, about an inch in depth of moss being used on top of the sawdust. The main idea of putting either of the materials mentioned around the pots is to prevent a too rapid evaporation of moisture. This evaporation is one of the great troubles plant growers have with pot plants when they are stood out singly on a window sill or on a veranda, as we often see them, and where they often suffer for want of sufficient moisture at the roots, no matter how frequently they are watered. By filling in around the pots as suggested, the plants give very much less trouble in watering than if stood about singly, and the plants thrive much better, as more natural conditions are given them in this way. Besides this, a tastily filled box of even ordinary window plants, with its carpet of green moss, has a very pretty natural looking appearance in a window. This plan of mossing window boxes is particularly suited for houses that have little or no garden accommodation for pot plants in summer.

Azaleas, palms, fuchsias, aspidistra, leopard plant (*Farfugium grande*), umbrella plant, tradescantia or Wandering Jew plant, and ferns are among the plants that would do well in the mossed box, more especially in windows or verandas facing the east or north. Agaves, cactus, scheverias,

vincas and similar plants succeed well in south and west aspects. Care should be taken to have holes bored in the bottom of the box to allow of free drainage, or the moss will soon become soddened and rotten, a condition not desirable either for the health of the plants or their owners.

### HOUSE PLANTS IN JARDINERES.

The fancy jardinieres so extensively used now for pot plants in house decorative work, are often the cause of the premature decay and loss of pot plants. Too often the plants are kept constantly—oftentimes when not necessary—watered, and no thought is given as to what the surplus water that the plant does not take up is doing, until perhaps the plant begins to look sickly, or maybe the unpleasant odor of stagnant water is detected, or in some very neglectful cases that I have known, the surplus stagnant water has actually run over the top of the jardiniere before it was noticed. More plants are injured both in winter and summer, especially palms, by the accumulation of stagnant water in jardinieres than is supposed, the summer months being the worst in this respect, as there is no fire or artificial heat to dry up surplus moisture.

Examine plant jardinieres at least once a week and throw out all the water found in them, and rinse them out with clear cold water. The plants, as well as the health of those living in the house, will not be endangered, as undoubtedly they are where plant jardinieres are neglected and not looked closely after.

The same remarks will also apply to cut flower vases and jardinieres. The water in these should be changed every day. If the ends of the flower stems are cut off about an inch every day it will help to preserve the flowers for a longer time than if the stems are not cut off.



Dahlias should have sufficient water given them at the roots to keep the soil always fairly moist. Soapy water is beneficial to dahlias applied to the soil near the roots. A solution of liquid manure made by diluting a pail full of cow manure in about ten gallons of water—or in that proportion if a smaller quantity is required—will also help dahlias considerably. An application of the liquid manure once a week will benefit them. Dahlias like a moist atmosphere to grow in. The foliage should be sprinkled or syringed every day if possible during very hot dry weather. Early morning or evening is the best time to sprinkle them, clear cold water being the best for this purpose. If large specimens are wanted on the dahlias, all the small weak stems should be cut out, as from two to four main stems is sufficient if large blooms are required. Some of the side or lateral bloom buds can also be picked off if the buds are very weak. If quantity rather than quality is required, more growth can be left on the plants. The growth of dahlias should be well staked up, as it is very brittle and liable to be damaged by storms.

#### ASTERS.

A mulch of long, strawy manure, or of short lawn grass trimmings spread thinly about an inch in depth around aster plants will help them to develop their flowers in very hot dry weather, and the plants will not require as frequent or copious supplies of water when the soil around them is well mulched. This mulching process is also very beneficial to newly planted fruit or shade trees, especially during the hot months of July and August.

#### AGAVES.

These succulent plants, which are often misnamed cactus, require very little water even during summer time. Being natives of tropical countries, where they grow and thrive on the almost arid deserts, where oftentimes there is no rainfall for months at

a time, they are particularly adapted for exposed sunny positions on the lawn. Good drainage at the bottom of the tub or pot they are in, and not too frequent waterings, are essentials necessary to be thoroughly successful with these plants. More agaves are injured or perhaps eventually killed by giving them too much water than from any other cause. Watering them once a week, even during the hottest weather, will usually be sufficient, unless the tub or pot they are in is very full of roots.

There is no class of plant that gives the lawn a more tropical looking appearance in summer time than a few agave plants. There are a great many species of agaves, the most common and probably the most serviceable being the plain green variety, *Agave Americanus*, or the variegated type of the same species, *Agave Americanus variegata*. The greatest objection to these agaves is that they are slow growing, and the points and edges of their thick fleshy leaves are very prickly, which make them difficult to handle.

The greatest enemies to successful agave culture are over-watering and a continued low temperature and frost, although the first light frosts of autumn or the white frosts of spring seldom injure them, as the thick fibre-like coating of their fleshy leaves is able to resist two or three degrees of frost very effectually. Agaves can be kept over winter in a warm, fairly well lighted cellar or basement. The dry heat of a furnace is not as injurious to them as it is to many plants. A dark, cold, damp cellar does not suit agaves in winter. If the plants are small it is better to keep them by the window in winter and give them very little water than to put them in a damp cellar.

#### OLEANDERS.

These plants like to be treated in almost a directly opposite manner to the agave, especially in summer time, as they like a good

supply of water at the roots and a partially shaded position during the hot summer months. An application of liquid manure, as recommended for dahlias, will also benefit them in summer, especially when the flower buds are beginning to show. The liquid manure application should be discontinued as soon as the first flowers open, or after the end of July, as the fertilizer would tend to induce a late sappy growth that would be difficult to winter over in a basement or cellar, where oftentimes these plants have to be kept in winter time. Oleanders are very subject to the scale, a small insect that infests both the foliage and stems of the plants, and will, if not checked, destroy the plant. On the oleander they are usually found at first on the underneath side of the leaf, close to the mid-rib, but are often found on the main stems of the

plants. When quite young they are of a whitish color, becoming brown and almost black as they reach their full growth. It is in the earlier stages of their growth they do the most harm. A good sponging with a strong solution of soapy water first, and then given a fairly hard brushing with an old tooth brush, so as to move all the scale from their position on the plant, is the best method to rid plants of scale. The great point to be gained in eradicating the scale from any plant is to rub the scale so as to move it from its position, as a scale once moved cannot attach itself to the plant. It is an old saying amongst plant growers, "Move a scale and it must die." The plant should be sponged with clean water immediately after the soapy water has been used on it, so as to remove any soap stains left on the foliage.



### The Prize Winning Garden in the Lady Minto Competition.

The main portion of the garden which won first prize in both the amateur and professional classes in the Lady Minto garden competition, held in Ottawa last year, is here shown. It is owned by Mr. W. G. Black, who may be seen in the illustration. Mr. Black has but little ground around his house, but he makes it a place of beauty and a joy to all who see it. His specialty is roses, of which he has a large number of varieties. The fact that there was strong competition for first place is proof of Mr. Black's ability as a gardener.

## OUR COMMON GERANIUM

CORA B. MORSE.

"Geraniums! Geraniums!  
With brave and steadfast eyes,  
Ye face the darkest day that comes,  
The bluest, sunniest skies;  
For shade and shine are one to thee,  
And come what may your blooms are free."

**E**VERYONE calls the geranium a common flower, yet there are those among us who can remember the furore the bright red flowers created when they first became known. It is a strange fact that the geranium, which grows almost everywhere and under about every condition, grows wild in but one corner of the earth, this being on the Cape of Good Hope, where it was found by the Dutch as far back as 1652, when over 600 species were discovered.

The ideal geranium is a thrifty strong grower, having thick woody stalks, many branches, making a broad circular plant, with branches from nearly every joint. Leaves should grow quickly and luxuriantly; flowers should be well shaped and full, broad and round. But, how frequently we see the plants straggling for an existence of some kind, often more dead than alive. Some geraniums may be seen at a standstill for months, one leaf dropping off as soon as a new one appears. Others are "nothing but leaves," while many remain splendid in their gay colors the whole summer through, but when winter comes have not a solitary blossom to gladden the hearts of those who care for them daily.

If grown as pot plants, the geraniums offer their greatest difficulties. One of the most frequent mistakes made in growing geraniums for pot plants is over potting them. Don't put a small healthy looking plant, only large enough to have a 3 or 4-inch pot, into a 6 or 8-inch one. If you do, you may expect them to stand month after month, scarcely growing an inch in that time. The first step then is to provide small pots. Geraniums from 4 to 6 inches

high require a pot only about 3½ to 4 inches in diameter. Drainage is the next essential, and a most important one. Drainage material is always easily obtained, a layer of broken pieces of pots, small stones, charcoal or even pebbles being all that is required. Through the chinks between these bits all surplus moisture will ooze, passing out of the small hole in the bottom of the pot. When placing the plant in the pot, leave about three-quarters of an inch at the top which is not filled with the soil.

A German authority gives as the best potting soil for geraniums one-third clean sharp sand, free from clay, one-third thoroughly rotted cow manure and one-third loam. Water plants well after potting, set them away in a dark closet, and leave for three or four days. Bring gradually to the light, not giving full sunshine for another week. Don't give your geraniums in pots too much water—they do not like it, neither do they require it. Water them when they need it. When the earth about the top of the plants is dry, give them a thorough soaking. This is easily and satisfactorily done by placing the pot in a basin or pail of water, leaving it there till it has soaked up all the water it needs.

As for potted plants, the ground must be well drained and in a good mellow condition. If it is a dry season, or a hot summer country, a mulch about the plants is found very desirable. The old fashioned scarlet, whites and good pinks are always in demand for bedding. Better still a bed with one color alone, or with colors harmonizing well, than a variety of colors of any and every hue.

In dusty times, spray the plants and water the leaves at night. The plants do far better cleaned of the dust they catch during the day. Keep the ground soft and do not let it become dry, baked and hard around the plants.

## A TALK ON PANSIES

SOME exceptionally fine large pansies were exhibited at the June meeting of the Toronto Horticultural society by M. Fogarty, of Toronto. A number of those shown were fully two and a half inches in diameter. So much interest was taken in the exhibition that a talk given the same evening by Mr. G. H. Mills on the growing of pansies was much appreciated.

"In growing pansies," said Mr. Mills, "a cold frame is needed; that is, a small piece of ground lined with a box, but not necessarily covered with glass. The glass does not need to be put on the box until real cold weather sets in. Before planting, secure a box about 6 feet square, or larger if a larger number of plants are to be grown. Sow the seed in a drill. One row of seed across one end of the box is all that will be required. Cover the seed with about one-quarter of an inch of earth. It is possible to secure 30 to 40 distinct varieties of pansies.

"After the seed has sprouted and the plants have two or three leaves, it is time to transplant them in the box. Each plant should have at least 4 inches of space around it. The frame in which the pansies are kept seldom needs covering until after Christmas. During the winter, should a solid week of

soft weather come on, the cover may be taken off the frame to give the plants air."

Being asked if he kept his pansies in the dark, Mr. Mills replied that he did. "A glass cover," he said, "is not necessary, as a door made of 1/4-inch stock makes as good if not an even better cover." Asked if he secured his seed in England or obtained it here in Canada, Mr. Mills replied it was possible to obtain good seed in this country.

"After you take the plants out in the spring," he continued, "do not let them dry out. See that they are given plenty of water. Keep the blossoms well picked, so that no seed can form, and they will bloom continually until cold weather. In the old country there are certain strains that growers do not allow to go to seed, propagating them instead by means of cuttings. These cuttings may be taken off in August by breaking off the top three joints. Put these in the ground, and they will root in two or three weeks, after which they should have the same treatment in the cold frame as the seedlings received during the winter. When planting cuttings, do not set them where the sun will be likely to wilt them, as they need a little shade and plenty of water. Pansies like a rich soil; a good sandy loam is about the best soil for them."

## BORDER FLOWERS

"BORDER FLOWERS" was the subject of an interesting illustrated address given recently before the Guelph Horticultural society by Mr. J. O. McCulloch, president of the Hamilton Horticultural society. People can, in Mr. McCulloch's opinion, be more easily interested in flowers by showing them pictures of actual growing plants than by talking about them. He therefore had prepared a set of lantern slides showing for the most part flow-

ers grown in the neighborhood of Hamilton.

The first pictures were of spring flowers, more particularly the Narcissi, as these are not grown to the extent they should be. The requirements are a soil rich in humus, but no barnyard manure should come in contact with the bulbs. Rotted leaves, with the addition of a small quantity of bone-meal, are the best fertilizers. A good half-dozen varieties are the Emperor, Empress, Barri Conspicuous, Sir Watkin, Poeticus and

Poeticus Ornatus, but the number of varieties is very large, and it is really all a matter of taste.

#### EARLY SUMMER FLOWERS.

Passing on to the early summer flowers. pictures were shown of Delphiniums, Foxgloves, Campanulas, and many others. The Campanulas were particularly recommended. Many failures with them, however, are caused by a lack of knowledge as to whether the plant grown is an annual, biennial or perennial. Campanula Medium, the true Canterbury Bell, is a biennial, and seed must be sown each season to have flowering plants the next. Of perennial

varieties, Persicofolia, Moerheimi, Carpatica and Pyramidalis were mentioned. Perennial Phlox is one of the best summer flowering plants and is easily propagated by cuttings taken in May or June.

Many varieties of annuals were shown, including asters, marigolds, scabiosa and antirrhinums. The last, while strictly speaking a perennial, can only be grown as an annual in this climate. Of fall blooming plants Japanese Anemones, Pyrethrum Uliginosum, Boltoma Asteroides and others were shown. Marigolds and antirrhinums were particularly mentioned on account of very late blooming.

### July Care of Dahlias

E. F. COLLINS, TORONTO.

**N**OW is the time to watch your dahlias and see that they do not suffer for want of water or stimulants. They are very gross feeders, and if you desire fine flowers you must feed them with manure water and attend to tying them up to stout stakes to prevent the wind blowing them about.

It is best to only allow about one stem to a plant if they are rather weak, but if good and stout, then two or even three may be allowed to grow, always keeping them tied up. When the flowering time arrives a little disbudding must be done.

The buds are usually produced in threes, and as the centre one generally makes the best flowers, it is wise to pinch the other two off, which will result in a much better bloom.

#### DIFFERENT VARIETIES.

The dahlias in cultivation to-day are divided into six distinct classes, viz., show, cactus, fancy, bedding, bouquet and single. These distinctions are somewhat difficult to define. The show varieties comprise all self-colored flowers, and those with dark colored tips. The cactus variety is now taking a place well to the front for cutting



#### School Children in the Garden.

In many sections of Ontario excellent work is being done in the direction of interesting school children in the growing of flowers. The illustration shows boys of the junior fifth class of Church St. School, Toronto, at work preparing a bed for planting Asters. The photograph was taken on Flower Day which was observed on the 3rd.

and decorative purposes, and appears to have derived their name from the fact that the Mexican variety, *Dahlia juarezii*, is the original type. The cutting of blooms from the cactus, and single varieties, does not injure or check them in any way. To comprise a fancy it must be striped or flaked with two distinct colors.

The bedding dahlias are free branching and dwarf, and have their flowers well above the foliage. The bouquet are sometimes known as the Pompoms, which have small but very double flowers, and produce large quantities of them.

## THE HISTORY OF THE ROSE

EDWARD TYRRELL, TORONTO.

THE history of the Rose is a subject worthy of most careful study and treatment. I have been at a loss to find a starting point, have searched many books to learn something of its history, but have not been very successful. The most ancient quotation I have read is a translation by Mr. Wm. Gaul from the writing of Sappho, the Greek poetess, who was born 600 years B.C.:

"Would love to point some flower to reign,  
In matchless beauty on the plain,  
The Rose (mankind will all agree),  
The Rose, the queen of flowers should be."

It is indisputably a flower of antiquity, although it graces alike the temperate regions of Europe, Asia, Africa and America. It has been a symbolic flower in every age, it was renowned for its medicinal properties, was abundantly used in joyous festivities and religious ceremonies, and enters into commercial life to a very large extent. Dean Hole writes, "the roses of all lands are here, but so changed, so strengthened by climate, diet and care, so refined by inter-marriage with other noble families, that they would no more be recognized by their kinsfolk at home than Cinderella at the ball of her sisters." Persia, China and Japan are the countries from which we have received our best originals. The *Rosa Centifolia* (Cabbage or Province Rose), the oldest of all, and one which exceeds all others in its beauty, form and odor; from Persia, 1569. Moss Rose, from Persia. Banksian Rose, named after Lady Banks, from China. China Rose (*Rosa Indica*), the old familiar monthly rose, from China, 1784. Fairy Rose (*Lawrenceana*, Miniature or Toy Rose), China, 1810. Tea Rose (*Indicata Odorata*), pink, 1819; yellow, 1824; the most celebrated group, and the true aristocracy of the Rose world, from China. The first person to exhibit tea-scented roses was the Rev. Mr. Hillingsworth in an exhibition at Hanover Square Rooms, London, in 1855. Noisette Rose,

named after Mons. P. Noisette, originated in America, supposed to be a cross between Musk and China. Musk Rose (*Rosa Moschata*), Persia, 1600. Polyantha Rose (*Rosa Multiflora*), Japan. Turner took the first prize in 1893 for the Crimson Rambler of this class. Ayrshire Rose (*Rosa Arvensis*), Europe. Stocks for budding are from the Dog Rose or Briar, (*Rosa Carmina*), Manietti or Wild Rose, from Italy about 1830.

To the French we are indebted for some of the choicest ornaments of the rose garden, as the rose is a pre-eminent object of horticulture with them, and the skill of the French has originated many new and beautiful varieties, yet England is considered to be the true home of the H. P. rose, and in growing perfectly those already known none can surpass the British. The English climate is better suited to its perfect development.

That the title of "Queen of the Flowers" is no modern assumption for the rose, has ever been seriously questioned, yet we find a Scotch poet (Dunbar) who lived about a century before Shakespeare championing the title for the rose, for he asserted the dignity and beauty of the rose to be superior to the Thistle of Scotland.

The rose appears to have first attracted attention for its medicinal properties. Pliny wrote about it more fully than any other of the ancient writers, and his system of cultivation is as necessary to-day as when he wrote, and for the garden is just as essential. He says that the genuine rose is indebted for its qualities to the nature of the soil, and considers that roses without perfume are not genuine roses. Pliny's writings, however, refer mostly to the medicinal properties of the rose, and he gives so many recipes that one would think the rose would remove or cure all the ills flesh is heir to. But a German writer (Rosenburg), in 1631.

surpassed Pliny by publishing a book of 250 octavo pages, giving receipts and describing the curative properties of the rose for almost every known disease.

Travelers who have visited Persia say that in no country of the world does the rose grow in such profusion as in Persia; it has been called the fatherland of the rose. In eastern literature there are many chaste and beautiful allegories. Here is one: "As this dark mould sends upwards and out of its very heart the rare Persian Rose, so does

hope grow out of evil, and the darker the evil the brighter the hope, as from a richer and fouler soil comes the more vigorous and larger flower." In a Persian legend we read that Sadi, the poet, when a slave, presented to his tyrant master a rose, accompanied with this pathetic appeal: "Do good to thy servant whilst thou hast the power, for the season of power is often as transient as the duration of this beautiful flower." This melted the heart of his lord, and the slave obtained his liberty.

## GROWING VEGETABLES UNDER CLOTH

W. T. MACOUN, HORTICULTURIST, CENTRAL CANADA EXPT. FARM, OTTAWA.

**A**T the Central Canada Experimental Farm last summer an experiment was tried in the raising of vegetables under cloth. A small enclosure, 24 x 14 feet in area, was made in which different kinds of vegetables were grown.

The same kinds of vegetables were raised just outside the enclosure for purposes of comparing the two. Owing to the very cool, wet summer, which was unfavorable to a test of this kind, the results in most respects were by no means conclusive, but the following notes are interesting and may be suggestive. All the vegetables inside grew better than those outside, and some continued to grow better until the end of the season.

### SOME INTERESTING RESULTS.

**Beets**—The tops were about as good inside as outside, but when pulled it was found that the crop of roots outside weighed 22½ pounds, while that inside was only 9 pounds.

**Lettuce**, sown June 10.—The plants grew almost equally as well inside as outside the enclosure. Outside they were from two to four days earlier than inside.

**Radish**, sown June 10.—Radish was ready for use inside, fully three days before those outside. The radishes inside were perfect-

ly free from maggots, while those outside were practically worthless. Those inside grew to be a large size before losing their crispness.

**Beans**, sown June 10.—The beans were ready for use three days earlier inside than outside, and the plants were about as vigorous. There were 11 quarts of green beans inside, as against 14 quarts outside.

**Egg Plants, Water Melons and Musk Melons**, planted June 10.—These were all failures as regards crop, both inside and outside, owing to the wet and cool summer, but all plants grew well in both cases. Hand pollination would be necessary to insure a crop even in a favorable season, as few or no insects could get into the enclosure.

**Cauliflower**, planted June 10.—The root maggot attacked those outside badly, while those inside, though injured some in the cold frame before transplanting, were not affected inside the enclosure.

**Cucumbers**, planted June 10.—Although the plants grew well, no cucumbers set inside until autumn, at which time a few roots in the cloth permitted insects to enter. There was only a very small crop outside owing to the unfavorable season.

**Tomatoes**, planted June 10.—The plants grew well inside, but were never as robust

as those outside. The first tomatoes ripened inside on July 15 and outside on July 21, six days later. The crop of ripe fruit was 55 pounds 2 ounces outside, and only 15 pounds 8 ounces inside, but there was twice as much ripe fruit before the middle of August inside as out.

Corn, planted June 10.—This grew more rapidly inside than out at first, but later on was not as robust.

**NO INJURY FROM FROSTS.**

The rain came through the enclosure as a mist, and hence the soil was not compacted the way it was outside. Light frosts which injured vegetables outside did not injure those inside. While the vegetables were

growing, daily records, with the exception of Sundays, were kept of the temperature inside and outside the enclosure. The average temperatures during the summer months up to September 1 were:

		No. of Readings.
Outside, 7 a. m. . . . .	58.4	26
Inside, 7 a. m. . . . .	58.3	26
Outside, 1 p. m. . . . .	72.8	68
Inside, 1 p. m. . . . .	76.23	68
Outside, 4 p. m. . . . .	74.7	52
Inside, 4 p. m. . . . .	76.9	52

As will be seen from the above, the temperatures averaged a little higher inside than out. The greatest difference was 9 degrees.

**THE VEGETABLE GARDEN IN JULY**

WM. HUNT, ONT. AGRIC. COLLEGE, GUELPH.

**W**EEDS! Keep them down whilst they are young by the constant use of the hoe. Surface stirring the soil amongst growing crops not only keeps down weeds, but keeps the soil cool during the hot weather. Surface stirring the soil without watering is, generally speaking, more beneficial to plant life during hot weather than giving water to plants without keeping the surface of the ground well cultivated and loosened up. Keep a loose earth mulch on the top of the soil around all growing crops.

It is best to water all newly planted plants once, as soon as they are planted. It settles the earth around the roots and gives them a fair start. Hoe a little loose soil over the moist earth as soon as the water has soaked away. This will help to retain the moisture in the soil much longer than if the moist soil was left exposed to the sun and air.

**SOWING AND PLANTING.**

There is not much to be done in sowing and planting during July. Late cabbage and cauliflower should be planted at once if not already attended to. Late celery

should be planted as soon as possible. A spraying or two with Bordeaux mixture without paris green will help to prevent "rust" in celery. The spraying should be discontinued as soon as the earthing up operation is commenced.

Celery should be planted early in July if wanted for autumn use, although fairly good celery can sometimes be obtained by planting as late as the first week in August. Celery can be planted after early peas or potatoes have been taken off, but the ground must be well manured before planting. Well rotted short manure is necessary. On very rich well prepared land celery can be planted 12 inches apart between the rows and 8 inches apart in the rows. This method necessitates not only very rich land, but also compels the use of land tile, cardboard, boards or some similar material to be used for bleaching the celery for autumn and early winter use, as earth could not be obtained or easily used for bleaching purposes if the rows were as close together as mentioned. As a rule, and especially where well rotted stable manure is scarce, it is best to dig out a trench about 12 inches in depth



and about 10 inches in width. Put about six inches of well rotted manure at the bottom of the trench, fill in about 5 or 6 inches of the top or richest soil taken out. This will leave a slight hollow or depression where the row of celery is to be set out. The hollow or depression will allow of the celery being easily and thoroughly watered during the summer months. If it is intended to bleach the celery with earth the rows should be at least 4 feet apart. The plants should be set about 8 inches apart in the rows. Double rows are sometimes planted where space is very limited. This is done by planting two rows about 6 or 8 inches apart. The plants should be set 10 or 12 inches apart in each of these two rows and should be planted diagonally and not directly opposite to each other, in the following manner, \* \* \* \* \* \* \* \* so that each plant forms the extreme point of a triangle. The trench, however, for a double row must be dug at least 12 inches in width.

Freshly planted celery should be kept well watered and shaded from the hot sun. In fact, during the hot days of July and August celery will be much benefited if a 12 inch board be placed over it on hot days for a few hours in the middle of the day, and removed after the hottest part of the day has passed. Any other material that will afford shade will answer as well as boards for the purpose of shading. All the soapy water should be saved and poured into the celery trench, as it is some benefit as a fertilizer as well as giving moisture to the plants. Although celery is very fond of a moist condition of the soil it is best not to plant or handle it when the foliage is wet. All celery growers seem agreed on this point, as handling it when the tops are wet induces rust and rot. A spraying of Bordeaux mixture without the paris green every two or three weeks during July and early August will prevent to a great extent the attack of rust. Paris Golden Yellow, Boston Market and the Giant Pascal are



**Celery Beds at the Central Experimental Farm, Ottawa.**

In the May, June and July issues of *The Horticulturist* considerable attention has been given to the growing of celery. While good money can be made raising this crop, success depends on close attention, suitable conditions and hard work. The illustration shows the celery beds at the Ottawa Experimental Farm.

good varieties to plant. The White Plume variety and Paris Golden Yellow are more subject to rust than the other varieties mentioned.

There is time yet to put in a row or two of dwarf beans, and some corn for late use. Sow the early varieties of corn, such as the Cory and Country Gentleman varieties, as these mature quickly. There will be scarcely time for the late varieties, such as Stowell's Evergreen, etc., to produce a crop, unless very favorable weather is experienced during early autumn.

#### BEANS FOR PLANTING

The best kind of beans to plant now are the Early Six Weeks and Early Valentine. These are both quick growing varieties and green in color, making them more useful for pickling than the yellow wax beans, if there is a surplus of them for table use.

If really good leeks are wanted they must be planted out in a trench prepared

exactly as recommended for celery. To secure the long white stems that make the leek so valuable for cooking as a vegetable, they must be watered and earthed up exactly in the same way that celery is grown. Leeks grown in this way are considered by many to be far preferable to onions when boiled. It is seldom that good well grown leeks are seen either in our markets or in private gardens.

Potatoes should be sprayed once or twice during the season when in full growth, with Bordeaux and paris green mixture. It will not only help to keep down the bugs, but will also destroy the fungus that produces the potato rot. Put the mixture on when the vines are dry.

Burn the old pea vines as soon as the last peas are picked. This will help to eradicate the pea weevil or pea bug that has become so destructive a pest to farmers as well as gardeners.

## A WHOLE HOST OF INSECT ENEMIES

PROF. H. L. HUTT, ONT. AGRIC. COLLEGE, GUELPH.

I have a number of Early Jersey cabbage plants set out in the garden. The ground was fall plowed, but in cultivating this spring I saw a number of large white grubs. What shall I do to prevent them from cutting the plants? What shall I use as a preventative against caterpillars on my cabbage plants? Should the grub cut the stems of my tomato plants what shall I do?—(E. G. Carp, Ontario.)

It is a difficult matter to deal with white grubs in the soil, as one never knows just where they are going to prove troublesome. Usually the best remedy is to dig them out and destroy them wherever they are seen. They usually show their presence below the ground by the injury to the plants above ground, so whenever a plant is found dying you may look for white grubs at the roots.

Sometimes to prevent these and cut worms from cutting off the plants, a small band of stiff brown paper is inserted in the soil around the plant, not so deeply as to in-

terfere with the roots, but merely to keep off worms in their attempt to reach the plant. After the land has been two years under cultivation from the sod, the white grubs are not likely to give any more trouble, as the Eggs from which they develop are laid by the May beetles in soft land.

The best protection against cabbage caterpillars is to spray with paris green or hellebore. Some have dread of using these poisons on plants like the cabbage, which are used for food, but when the method of heading the cabbage is understood it can readily be seen that none of the poison is enclosed in the head, but is instead deposited on the outer leaves, which are stripped off when the cabbage is prepared for the table. When tomato plants have been cut off by the worms there is nothing else to do but replant or patiently bear the loss.

# The Canadian Horticulturist

The Leading Horticultural Magazine in the Dominion.

1. **The Canadian Horticulturist** is published the first of each month.

2. **Subscription Price** \$1.00 per year, strictly in advance, entitling the subscriber to membership in the Fruit Growers' Association of Ontario and all its privileges, including a copy of its report and a share in its annual distribution of plants and trees. For all countries except Canada, United States and Great Britain add 50c for postage.

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7. **Articles and Illustrations** for publication will be thankfully received by the editor.

8. **All Communications** should be addressed:

THE CANADIAN HORTICULTURIST,  
TORONTO, CANADA

## FRUIT EXPERIMENTAL ORCHARDS WANTED.

Growers interested in the fruit possibilities of the Niagara peninsula are urging the Dominion department of agriculture to establish an experimental orchard, on a pretty extensive scale, somewhere in that portion of the province. These efforts are to be commended, but one argument that is being used by some of those who are active in the matter, should be dropped. With the object of strengthening their case they have claimed that the orchard at the Central Canada Experimental Farm at Ottawa is out of the fruit belt, that it is on very poor soil, and that generally it is not accomplishing the good it might were it located somewhere in the Niagara district. As this contention has been attracting considerable attention it may be well to examine the situation closely.

While it must be admitted that the orchard on the farm at Ottawa is rather exposed and that the soil is by no means ideal, most of it being a light sandy loam, with a compact sandy subsoil, the fact remains that most of the hardy varieties of fruits do well in it, and there is little actual proof that the soil is unsuitable for most of the fruits that will succeed in the climate of that district. So many varieties of apples, pears, plums and cherries tested at Ottawa have not proved hardy, and the orchard presents a very broken appearance. To one not acquainted with the circumstances the

blanks in the orchard where trees have died would certainly lead to the conclusion that the soil was the principal cause. It has, however, been found that varieties which do not succeed at Ottawa do not succeed in places where the climate is similar, whatever the soil. This proves that the conditions are not as unfavorable as might be imagined from appearances. A poor soil for experimental work is, in some ways, to be desired. Most of the tests with cover crops, spraying mixtures, methods of grafting and other experiments connected with horticultural work can be done as well at Ottawa as in a more favored section. There is, furthermore, the fact that as the apple trade is of the greatest importance to this country, the Niagara district has no more right to a station than the great apple, pear, plum and cherry growing districts along the Georgian Bay and Lake Ontario.

The truth is there is room for experimental orchards both at Ottawa and in the Niagara section, and possibly, also, in the Bay of Quinte and Georgian Bay districts. It is to be hoped the Dominion department of agriculture can be induced to take up this line of work. Care will, however, have to be taken to see the operations of the Ontario fruit experiment stations are not unnecessarily duplicated.

## SHOULD THE ACT BE CHANGED?

It is now practically assured that there will be a meeting of delegates from the horticultural societies of the province at the time of the big fruit, flour and honey show to be held in Toronto next November. A matter which may well engage the attention of this gathering is the basis on which horticultural societies receive their government grants. In the act granting government aid to provincial horticultural and agricultural societies both are placed in practically the same class. If a horticultural society is established in a town or village it means that the government grant to the agricultural societies in that division is reduced by the sum the horticultural society receives.

There are a number of places in the province where live, active horticultural societies are needed, but their establishment has thus far been blocked by members of the local agricultural society or societies who do not want to have their government grant reduced. In some sections where horticultural societies have been formed it has only been at the expense of hard feeling between the local societies. There are other sections where the horticultural societies have been induced to use all their funds to assist the horticultural exhibits at the agricultural society's annual fair. While this is good work in its way, it is not nearly equal to what can be done by a live horticultural society working along the lines of those societies whose methods of procedure have lately been described in *The Horticulturist*.

There is a large field for work in the province for both agricultural and horticultural societies, and the establishment of one should not attract

from the possibilities of work open to the other. General dissatisfaction is being expressed with the work of many of our agricultural societies, and a change in the act granting them aid seems probable in the not very distant future. Now is a good time for the officers of the horticultural societies to consider this whole subject. The convention proposed for next November will afford their representatives an opportunity to consider the matter fully.

#### HOW OUR READERS CAN HELP.

The management of *The Canadian Horticulturist* is endeavoring to publish a magazine that will be of direct value to fruit growers and all interested in horticultural subjects. As our readers must have observed, the amount of setting in each issue has lately been increased, and more attention is being given to all sides of the fruit and general horticultural interests, while every item each month is fresh, there being no clippings from other magazines or papers. If our readers and that section of the public which is interested in horticulture will show their appreciation by rallying to the support of *The Horticulturist*, the only magazine of the kind published in Canada, it will soon be possible to considerably increase the number of pages, add other departments, and make a number of further improvements.

There is one way in which readers can materially assist the management, viz., by buying from our advertisers and telling them that they saw their advertisement in *The Horticulturist*. This will encourage advertisers to continue and even enlarge their advertisements, which will mean more money for the management and the desired improvements in the magazine. Only high class advertisements from reliable firms are accepted. During the past two months several advertisements which savored of the fake nature, which had crept into *The Horticulturist*, have been rejected and will not appear again, although the money offered for their publication has been needed. Help us to publish a horticultural paper that will be a credit to Canada by telling your friends about the magazine and patronizing our advertisers.

**Marketing Small Fruits.**—Currants are handled in baskets and in quart boxes put up in crates. I have tried both ways, and find a better margin of profit from using the quart box in the 24-quart crate. In fact, all currants and berries pay best when put up in quart boxes and crates. In selling grapes I use a basket which holds two and three quarter quarts, and find that size of package pays the best.—(A. W. Peart, Burlington, Ont.)

We advertise in a large number of newspapers in Canada and can truthfully say that we obtain better results from our advertisement in *The Canadian Horticulturist* than from any other. —(The Smith & Reed Co., Dominion Nurseries, St. Catharines, Ont.)

#### A WELL PRESENTED CASE.

The fruit growers are to be congratulated on the excellent case they presented to the railway way commission. The transportation difficulties which have, to use the words of President Bunting, "harassed the fruit growers of the province for a number of years," were set forth so clearly, the proofs offered were so positive, and the spirit in which the evidence was given was so free from petty spite of any kind it was apparent, almost from the very start, that the commissioners were considerably impressed by the facts presented.

The praise given Mr. Bunting by Hon. Mr. Blair and Hon. Mr. Bernier for the clear and moderate manner in which he set forth the case of the fruit growers was well deserved. The evidence of Messrs. E. D. Smith, M. P., H. W. Dawson and Ex-Mayor Graham was also given in a manner deserving of every commendation. The whole case was handled so ably as to show plainly the care with which it had been prepared and the great amount of time those interested in it must have given the matter. Even if the fruit growers do not succeed in securing all the redresses asked for, an excellent start towards an improvement in existing conditions has been made.

Fruit growers owe considerable to the magazine, *Physical Culture*. This monthly, which is the foremost of the kind published, is constantly drawing attention to the value of fruit and vegetables as a food. The average person, according to *Physical Culture*, eats too much. If instead of eating hearty meals three and, as some people do, four times a day, more would satisfy their hunger by eating a little fruit they would both feel and be the better for it. Eat more fruit and vegetables and less meat is its constant advice. There is a great deal of common sense in what *Physical Culture* says. If the general public would only follow this advice it would be a splendid thing for the fruit industry.

Quite a little is being said by fruit growers in regard to which are the best sizes of boxes and barrels for the shipment of fruit. In this connection one point deserves attention. The two baskets most commonly used for the shipment of plums, cherries, etc., are the 11-quart and the 62-3 quart. The general public is inclined to consider the smaller package a half size of the larger and to refuse to pay more than half the price of the larger basket for it. This, of course, spells loss for growers who use the smaller basket. An effort should be made to secure the adoption of a straight 5½ or 6-quart basket.

There are a large number of horticultural papers published in the United States, but only one in Canada, and that is *The Canadian Horticulturist*. Help us make it a credit to Canada by recommending it to your friends and patronizing our advertisers.

## THE CANNED FRUIT INDUSTRY IN CANADA

"One of the greatest difficulties Ontario fruit growers have to contend with is the low prices at which dates, prunes, dried apricots, pears, etc., are shipped here from the south and California, and sold on our Canadian markets. The duty on this fruit is so low that it is no obstacle to the free sale of these goods, and consequently these goods are serious competitors against our canned Ontario fruit and vegetables."

These views were expressed recently to The Horticulturist by one of the officers of the Canadian Cannery Co., Hamilton. "Another difficulty," continued Mr. Innes, "lies in the fact that our Canadian cities are so small the demand for our canned fruits is very limited. Were the 35 canning factories owned by our company to work at their full capacity they could turn out enough goods in one year to supply the demand for two or three years. The output of our factories last year was about 40,000,000 cans.

"The duty on fine cane sugar, of \$1.26 for every 100 pounds, is quite a serious handicap to us when we compete for trade in the British market. In Great Britain, where our trade, although small, is growing, we have to compete against the goods offered from all parts of the world. It is necessary, therefore, that we should be able to offer our goods at as low a rate as possible, and we find the duty on the sugar we need for preserving purposes a serious handicap.

"There is no outlet in the United States for any of our canned fruit, as the duty is entirely prohibitive. The trade with the northwest is good and is growing. There is a great demand on the part of some small towns throughout Ontario for more canning factories. The people who advocate the establishment of these factories do not appear to realize how small the demand for canned fruit is. Were the demand large enough to warrant us doing so, we could readily establish factories in 150 towns in the province that are calling for them."

## FRUIT THE OTTAWA MARKET DEMANDS

G. W. HUNT, OTTAWA.

There are so many different views as to the varieties of fruit that sell to the best advantage in Ottawa it is difficult to enumerate them all. A few kinds, however, are known to always bring good prices.

In the past few years Clyde strawberries have sold remarkably well, with one or two exceptions, where the color has been very pale. The consignments of several shippers have sold at the top of the market. The William, while a good carrying berry, does not appear to have the sympathy of the buyers to any great extent. There are two or three other new varieties coming in which are not named on this market, or sold as any particular variety that sell well. If fruit growers would name their berries and all other fruit it would in the end be very beneficial to them. This applies particularly to peaches, as 90 per cent. of all the yellow flesh peaches sold on this market are sold as Crawfords, when in reality only about 20 per cent. of that class of peaches are Crawfords. The trouble is, the average householder either telephones his order or sends some person else to buy his peaches. He asks for Crawfords, and invariably the dealer sends anything that has yellow flesh like a Crawford peach.

When the peaches are canned and used the buyers find them very fine, and the next season still want Crawfords, believing they are using a Crawford peach, when it is some other variety. The naming of peaches would, of course, be detrimental to new varieties coming in, but in the end would be money in the pockets of the growers, as they would introduce every new variety permanently in that way.

In the demand for plums there does not appear to be any great difference so long as they are either blue, red or green. Buyers do not even ask for Green Gages, but when they do they are sold Reine Claudes, Washingtons, or anything else. To my mind the Reine Claude is much superior for canning purposes to the old-fashioned Green Gage, and it sells for more money.

The best selling varieties of pears are Bartletts, Clapp's Favorites, Louise Bonne, Sheldon's, Buerre d'Anjou, Buerre Clairgeau. The Keiffer is a very slow seller.

### FOLLOW THE CALIFORNIA STYLE OF PACKAGE.

It appears to be a difficult matter to change buyers' views on packages. My own impression is that if all the fruit were done up in the California style it would pay the grower in the course of a year or two. The only objectionable feature to the baskets is the fact they are too wide and not long enough. When they are piled eight to ten high the ends of the baskets are liable to sink into the fruit in the under tiers. If the baskets were half an inch narrower and an inch longer there would be a good firm basis for them to rest on the baskets underneath. No matter how high the baskets were piled there would be no danger of the bottom tiers being damaged in any way, providing of course they were not piled high enough to break the basket outright. The sooner the growers get down to using a six and a two-quarter quart basket, with no others, the better for all parties concerned, as ten-quart baskets are only injuring the trade.

We always read The Horticulturist with interest. It is worth reading.—J. J. H. Gregory, Marblehead, Mass.

We consider The Canadian Horticulturist a very valuable paper.—(German Kall Works, 99 Nassau street, New York City.

# FRUIT SHIPMENTS TO GREAT BRITAIN

NOTHARD & LOWE, TOOLEY STREET, LONDON, ENG.

The best way to ship apples is in barrels, with a thick pulp head on top of the apples to prevent bruising. A few extra fine varieties might do in cases if packed as the California fruit packers pack theirs, but we are opposed to the use of cases as a rule. Every steamer's hold, where fruit is carried, should have a thermograph. This should be opened and examined in the presence of your inspectors in London, and the temperature officially published for the benefit of the fruit growers and shippers. There would be no difficulty then in finding out which boats carried fruit in the most satisfactory manner.

## Varieties That Have Done Well.

The bulk of the apples we handle are from Nova Scotia, from which province we receive very large quantities. We have fruit houses in most of the principal stations from where fruit is shipped on the railways. The principal varieties that are shipped are Gravenstein, King Tompkin, Ribston, Spy, Baldwin, Greening, G. Russels, Fallawaters, Nonpareils, and this last season there have been quite a good few ship-

ped a new variety known as the Stark. This apple is growing in popularity here.

A few seasons ago we sent out a considerable number of grafts of the celebrated English varieties, the Cox's Orange Pippin and the Wellington. There have been a few hundred packages of Wellingtons shipped to us this season; they have made a very high price, and there have been a few packages of Cox's Orange shipped, also which made still higher prices. This latter variety appears to be a light bearer. The Ben Davis discolors badly.

There has not yet been any great improvement in the packing, although the Fruit Act is in force to prevent fraudulent packing. There are, of course, a great number of shippers who never pack inferior stuff, and there are also a lot of them who do pack inferior apples, and there were a great number of cases of this during the past season. The inspectors at this end should report every case they can trace of false packing, to the inspectors at the other end. No doubt this is done. It is the most effectual way of tracing false packing.

## BRITISH GROCERS DISCUSS THE PACKAGE QUESTION

At the quarterly meeting of the federation of the Grocers' Association, held in London, England during the early part of June, an interesting discussion took place on the subject of packing apples in boxes. The following report of the meeting is taken from *The Grocer* :

Mr. Dutton, on behalf of the Chester Association, moved :

"That in the opinion of those grocers in the General Purpose Committee who deal in fresh fruit, the movement in America in favor of the packing of apples in boxes of a reasonable capacity, instead of barrels, is deserving of the strongest support at the hands of all retail fruit dealers in this country, such reduced size packages having very many advantages, whilst the cumbersome barrels hitherto used have many disadvantages; and to recommend that this opinion be sent to all American fruit associations."

Mr. Dutton said he had noticed from time to time that there was such a movement in progress in America, and he had the advantage that morning of conversing with Mr. George Monro, one of the largest fruit dealers in Covent Garden, who thought it would be an excellent thing if they could send the resolution forward to the various authorities in America who were responsible on that side for the packing of goods. He had an article written by Mr. G. A. Cochrane, of Boston, on this barrel problem, in which the writer said: "I think this great scarcity of barrels is going to result in good to growers in the end. The barrel has always been a most unsuitable package to pack such delicate fruit in, as it gets an immense amount of abuse on all hands. In con-

sequence of its being so easy to move from place to place by rolling. Another thing, its contents, for one compartment, contain too great a quantity of fruit, and in order to carry well a pressure has to be used that virtually bruises every piece of fruit it contains.

"When one looks at the intelligence shown by the Californians and the Floridians in the matter of grading and packing of their fruits, as well as the inviting packages they use, one is forced to admit the utter lack of intelligence or an indifference on the part of growers of fruit in New England and the middle states in this matter. No advancement whatever is discernible, as they continue in the same old ways of their grandfathers in adhering to the barrel, and with a little less honesty in the matter of packing their fruit. There are no fruit growers in the world who have such a low standard of grading fruit and using such an unsuitable package as the barrel to pack in as the apple growers in the middle and New England States of America; and the Canadians are not better, except in better barrels, as they generally use new ones.

"They continue to try to market one-third to one-half of their apples that should never have left their orchards, and if they could only realize this, and that they would receive from one-third to one-half more for their perfect fruit than they do now, as well as saving the cost of packages, labor, freight, cartage, and other charges on this worthless portion of their shipments—when they realize this and bring up their standards of quality, they will find their apple trees will yield them a profit to exceed anything they can raise on their farms." It

was said that the barrel was handy for transit, but they wanted something that the average assistant could carry about, and by having different packages they could have four or five different kinds of apples.

Councillor Shirley seconded the motion, and said that if properly packed the apples would be worth double the price. Mr. Oliver supported the resolution, and suggested that the apples should be of uniform size, and the contents of the packages graded in a similar manner to California plums.

Mr. J. W. Thomas suggested that the pack-

ers should put the same apples in the bottom as on the top. (Laughter.) Mr. Weeden said that in Tasmania he saw thousands of boxes of fruit being packed, and the apples were packed in boxes and not barrels, which appeared to him much the better plan.

The chairman said he wished they could find some kind of package which would preserve the flavor of the apple. His experience lately was that when the apples got to him there was little of the flavor of apples about them. (Hear, hear.) The resolution was carried.

## PRIZE LIST FOR THE BIG FLOWER SHOW

The following liberal prize list has been prepared for the floral department of the provincial fruit, flower and honey show, which will be held in Toronto, November 3 to 12. Over \$1,200 is offered in prizes.

This part of the big show will be in charge of representatives of the Toronto Horticultural

Society, Toronto Gardeners' and Florists' Association, and the Toronto Electoral District Society, who are already hard at work in an effort to make the exhibition a great success. The fruit prize list will be ready for publication shortly. The honey prize list is already in circulation.

### CHRYSANTHEMUM—(PLANTS).

Section 1. Best 1 specimen, any variety or sized pot, 1st \$8, 2d \$7, 3d \$5, 4th \$4.

Sec. 2. Best 1 standard, any variety or sized pot, stem not more than 3 ft, 1st \$8, 2d \$7, 3d \$5, 4th \$4.

Sec. 3. Best specimens, white, pot not to exceed 10 inches.

Sec. 4. Best 3 specimens, pink, pot not to exceed 10 inches.

Sec. 5. Best 3 specimens, yellow, pot not to exceed 10 inches.

Sec. 6. Best 12, single stem and flowered, not less than four varieties, pots not to exceed 6 inches, 1st \$7, 2d \$5, 3d \$4, 4th \$3.

Sec. 7. Best 25, single stems and flowered, not less than eight varieties, pot not to exceed 6 inches, 1st \$12, 2d \$10, 3d \$8, 4th \$6.

Sec. 8. Best 3 specimens, Pompon Anemone or single flowering, pots not to exceed 3 inches, 1st \$5, 2d \$4, 3d \$3.

### PLANTS—MISCELLANEOUS.

Sec. 9. Best group of plants, arranged for effect, consisting of 'mums, palms, ferns and selaginellas, space not more than 90 sq. ft., 1st \$30, 2d \$25, 3d \$20, 4th \$15.

Sec. 10. Best group of foliage plants, arranged for effect, in which a few 'mums may be introduced, space not to exceed 90 sq. ft., 1st \$20, 2d \$15, 3d \$12, 4th \$10.

Sec. 11. Best 1 specimen palm, 1st \$10, 2d \$8, 3d \$6.

Sec. 12. Best 12 specimen palms, not less than four varieties, pot not to exceed 3 inches, 1st \$10, 2d \$8, 3d \$6.

Sec. 13. Best 30 ferns, not less than 3 varieties, not larger than 3-inch pots, 1st \$5, 2d \$4, 3d \$3, 4th \$2.

Sec. 14. Best 25 ferns, not less than 6 varieties, pots not to exceed 3 inches, 1st \$3, 2d \$2, 3d \$1.50, 4th \$1.

Sec. 15. Best 6 specimen ferns, 1st \$10, 2d \$8, 3d \$6.

Sec. 16. Best 1 specimen fern, 1st \$6, 2d \$4, 3d \$3.

Sec. 17. Best display of orchids, in which Nepenthes and any green foliage may be used, 1st \$25, 2d \$20, 3d \$15, 4th \$10.

Sec. 18. Best 3 orchids in flower, 1st \$6, 2d \$4, 3d \$2.

Sec. 19. Best 1 orchid in flower, 1st \$3, 2d \$2, 3d \$1.

Sec. 20. Best 6 cyclamen in pots, not to exceed 3 inches, 1st \$5, 2d \$4, 3d \$3.

Sec. 21. Best 12 primulas in pots, not to exceed 3 inches, 1st \$5, 2d \$4, 3d \$3.

Sec. 22. Best 6 pots of callas in bloom, pots not to exceed 10 inches, 1st \$5, 2d \$4, 3d \$3.

Sec. 23. Best 6 begonias in bloom, pots not to exceed 3 inches, 1st \$5, 2d \$4, 3d \$3.

Sec. 24. Best 6 flowering plants, distinct varieties and distinct from other entries, pots not to exceed 10 inches, 1st \$10, 2d \$8, 3d \$6.

### CLASS II.

#### CUT BLOOM—CHRYSANTHEMUMS.

Sec. 25. Best 25 distinct varieties, 1st \$10, 2d \$8, 3d \$6, 4th \$4.

Sec. 26. Best 12 distinct varieties, 1st \$5, 2d \$4, 3d \$3, 4th \$2.

Sec. 27. Best 25 any varieties, 1st \$10, 2d \$8, 3d \$6, 4th \$4.

Sec. 28. Best 12 one variety, 1st \$6, 2d \$4, 3d \$3, 4th \$2.

Sec. 29. Best 6 new varieties, 1st \$5, 2d \$4, 3d \$3, 4th \$2.

Sec. 30. Best 6 T. Eaton, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 31. Best 6 Col. Appleton, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 32. Best 6 Dr. Oronhyatekha, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 33. Best six white (Eaton excluded), 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 34. Best 5 pink, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 35. Best 6 yellow (Appleton and Oronhyakha excluded), 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 36. Best 6 crimson, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Cut blooms in this class, except sections 25 and 26, to be exhibited with stems not less than 1 1/2 inches, each entry to be exhibited in one vase. Sections 25 and 26 to be exhibited in individual vases.

CUT BLOOM—ROSES.

Sec. 37. Best 10 Perle des Jardir, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 38. Best 10 The Bl. Je, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 39. Best 10 The Bridesmaid, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 40. Best 10 The Meteor, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 41. Best 10 Mrs. Pierpont Morgan, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 42. Best 10 Golden Gate, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 43. Best 10 Ivory, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 44. Best 10 Canadian Queen, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 45. Best 10 any other variety, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 46. Best 10 American Beauty, 1st \$5, 2d \$4, 3d \$3, 4th \$2.

Sec. 47. Best 10 new varieties, introductions 1904, 1st \$6, 2d \$4, 3d \$3, 4th \$2.

Sec. 48. Best vase of 50 roses, arrangement to count in judging, not necessarily grown by exhibitor, American Beauty excluded, 1st \$15, 2d \$10, 3d \$6, 4th \$3.

Sec. 49. Best vase 25 American Beauties, 1st \$15, 2d \$12, 3d \$10, 4th \$5.

An Interesting Move for Supplies.

The St. Catharines Cold Storage and Forwarding Company has recently purchased 250,000 baskets, with an option on 200,000 more, getting 10 per cent. discount from the regular price. Two carloads of apple and pear boxes have also been purchased at very good prices, enabling members to procure these supplies at very reasonable rates. New members are being received continually, about five a week being the average for some time past, at \$50 each, thus bringing quite a goodly sum into the society's treasury. The company has a good supply of wooden berry boxes and crates on hand at the storage. Baskets, fasteners, nails and other supplies will be secured at liberal discounts for the members who hold five shares of stock.

We arranged our first exhibition of fruit and flowers for June 28. This was the first event of the kind in the history of the city, and no pains were spared by the directors of the society to make it a great success.—(St. Catharines Hort'l Soc.)

CUT BLOOM—CARNATIONS.

Sec. 50. Best 25 white, named, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 51. Best 25 red, named, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 52. Best 25 light pink, named, not darker than Scott, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 53. Best 25 dark pink, named, not lighter than Scott, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 54. Best 25 yellow, named, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 55. Best 25 fancy, named, 1st \$4, 2d \$3, 3d \$2, 4th \$1.

Sec. 56. Best 50 blooms, one variety, arranged loosely in vase, 1st \$8, 2d \$6, 3d \$4, 4th \$3.

Sec. 57. Best 50 blooms, any varieties, with any foliage, arranged loosely in vase, arrangement to count in judging, not necessarily grown by exhibitor, 1st \$8, 2d \$6, 3d \$4, 4th \$3.

Sec. 58. Best 25 new varieties, introductions 1904, 1st \$5, 2d \$4, 3d \$3, 4th \$2.

CUT BLOOM—VIOLETS.

Sec. 59. Best bunch 50 violets, double, 1st \$3, 2d \$2, 3d \$1.

Sec. 60. Best bunch 50 violets, single, 1st \$3, 2d \$2, 3d \$1.

FLORAL DESIGNS.

Sec. 61. Best hand bouquet, any flowers, 1st \$10, 2d \$8, 3d \$6, 4th \$4.

Sec. 62. Best funeral design, standing anchor, any flowers, anchor frame not to exceed 24 inches, 1st \$15, 2d \$12, 3d \$10, 4th \$8.

Sec. 63. Best presentation basket of 'mums, 1st \$10, 2d \$8, 3d \$6, 4th \$4.

Sec. 64. Best presentation basket of any flowers, basket not to exceed 14 inches, 1st \$10, 2d \$8, 3d \$6, 4th \$4.

Sec. 65. Best flat basket of 'mums for table decoration, not to exceed 20 inches, 1st \$10, 2d \$8, 3d \$6, 4th \$4.

A New President.—The members of the Kingston Horticultural Society have chosen a new president, the new officer being Col. R. E. Kent, who was unanimously elected to fill the vacancy made by the former president leaving the city. Mr. Kent is sure to do well for the society at Kingston, as he is much interested in horticulture and has been a hard and faithful worker in the interests of former shows. He has one of the finest gardens in Kingston. A meeting will be held shortly to determine the advisability and probability of the society holding a show next fall.

Broken Apple Boxes.—Mr. John Brown, inspector of the Department of Agriculture at Glasgow, reports to the Fruit Division, Ottawa, that a shipment of over 1,200 boxes of Canadian Baldwins and Greenings recently landed in that city with a large number of the boxes broken. This condition of affairs seemed to be due to the fact that the boxes were made with only a straight dovetail, simply matched, as it were. The advisability of having the boxes made with the regular fan-shaped dovetail or else strongly nailed is therefore apparent.



## HORTICULTURAL SOCIETIES ARE FALLING INTO LINE

The suggestion made in the June issue of *The Horticulturist* that a provincial horticultural association might be formed at the time of the big flower, fruit and honey show, to be held in Toronto next November, is being generally endorsed. The need for better organization on the part of horticultural societies appears to be recognized. The following societies have been heard from since *The Horticulturist* appeared in June:

### WHAT THE SOCIETIES SAY.

Our president, as well as our secretary, have been giving some consideration to this question, and also to pages 268 and 269 of *The Canadian Horticulturist* for June, the perusal of which so favorably impressed us both in regard to the importance of the proposed new association that I am advised to write you stating our society will appoint one or more delegates to the big fruit, flower and honey show to be held in Toronto next November. That the organization proposed will be successful in every sense we feel convinced. You may count on the cooperation of the Kincardine Hort. Society.—(Joseph Barker, Sec.)

I think the idea of sending delegates to the fruit, flower and honey show to be held in Toronto in November next, a capital one. There is no reason why an organization such as you suggest, viz., for horticultural societies, should not only prove a success but also of lasting benefit to all interested in horticulture. No doubt whatever but our society will be represented at such a meeting.—(C. J. Foy, Sec. Perth Hort'l Soc.)

I think it would be a good idea to have such a meeting in Toronto next November.—(C. W. Schierholtz, Sec. Elmira Hort'l Soc.)

### Tree Protectors

During June *The Horticulturist* wrote to the fruit experiment stations of the province which are using the Arndt tree protectors, asking them how the protector is working. Replies received from several of the stations are to the effect that it is still too early in the season to announce what results will be derived from these protectors. At one or two of the stations the protectors have not yet been put on the trees.

Mr. Murray Pettit, of Winona, writes as follows: "I think the Arndt tree protector will be valuable where the canker worm is troublesome. The female crawls up the trunk of the tree, and as there are two forms of them, one of which deposits its eggs in the fall and the other in the spring, it will require a full year to test the protectors."

Mr. Nicholas Young, of Richard's Landing, writes that he believes the Arndt tree protector just fills the bill as far as preventing crawling insects from going up the tree is concerned. "It is," he writes, "about perfect, being easily

The president of the Port Dover horticultural society desires me to say that he heartily concurs in the proposal to hold a provincial meeting of delegates from horticultural societies in Toronto next November. The combined show it is purposed to hold is a good idea, and should be largely patronized. There is no doubt but that this society will be glad to send delegates to such a meeting. Personally I shall be glad to do what I can to promote the success of the same. Success to *The Horticulturist*.—(S. L. Butler, Sec.-Treas.)

I am instructed by the directors to say that they heartily approve of the idea of forming a provincial association of horticultural societies. Delegates will be sent when the time arrives. I wish the movement every success, and trust every horticultural society will see the matter in its true light.—(S. Richardson, Sec. St. Catharines Hort'l Soc.)

We believe that a provincial horticultural association could be so managed as to greatly improve the work and the results of our local societies. We heartily approve of the proposal.—(S. W. Howard, Sec. Hagersville Hort'l Soc.)

I have brought this matter to the attention of our horticultural society, and they heartily cooperate with the sentiment of your communication. I will report later to you who the delegates may be.—(T. T. Thrasher, Sec. Stirling Hort'l Soc.)

I consider the proposition to form a provincial horticultural association a move in the right direction. We may not appoint delegates, but I hope to be present for one day at least.—(W. Sanderson, Sec. Stratford Hort'l Soc.)

applied. It would have saved me many an hour's work five years ago, when I had an invasion of forest tent caterpillars."

### Ottawa's Successful Rose Show

Roses ran riot at the June exhibition of the Ottawa Horticultural Society on the 21st ult. A splendid showing of peonies was also made, while strawberries were well to the front. An interesting and instructive talk on Roses was given by Mr. W. G. Black, a full report of which will be published later in *The Horticulturist*.

Out of 50 odd varieties of roses tested by Mr. Black, a group of hybrid perpetuals for some years past have supplanted all others, they being hardy and having a beautiful bloom. The principal exhibitors of herbaceous perennial blooms were W. H. Snelling, J. Thorne, E. B. Whyte; of roses, W. G. Black, J. Rowley, G. A. White and Mrs. John Laing. Peonies were shown by Messrs. F. Oster, MacGrady, Snelling, H. P. Carstensen, T. Judd, S. Short, E. B. Whyte and Miss V. Keyes.

## BETTER TRANSPORTATION OF FRUIT ASKED FOR

A strong case was made out by the representatives of the fruit interests of Ontario at the sessions of the Railway Commission, which met in Toronto during the week beginning June 20. The commission, as is generally known, was recently appointed by the Dominion Government for the purpose of hearing and determining complaints in regard to the service rendered by the railway companies. For years there has been general complaint on the part of fruit growers in regard to the treatment they have received at the hands of the railways. It has been felt that the development of the fruit industry has been seriously retarded in consequence.

The fruit interests represented included the Ontario Fruit Growers' Association, the Niagara Fruit Growers' Association, and the International Apple Shippers' Association. The principal witnesses were Mr. W. H. Bunting, of St. Catharines, the president of the Ontario Fruit Growers' Association; Mr. E. D. Smith, M. P., of Winona; Mr. H. W. Dawson, the well known commission dealer, of Toronto, and ex-Mayor R. J. Graham, of Belleville, who was the representative of the Apple Shippers' Association. The railways were represented in part by Mr. G. M. Bosworth, the vice-president of the Canadian Pacific Railway; Mr. John Pullen, general freight agent of the Grand Trunk Railway; Mr. B. B. Mitchell, of Detroit, general freight agent and traffic manager of the Michigan Central Railway; A. Patriarche, general traffic manager of the Pere Marquet system; Mr. Hinton, of the Canadian Atlantic Railway, and several others.

The case for the several farming organizations was introduced by Mr. W. D. Gregory, barrister, of Toronto, who quoted statistics which indicated that during the past 26 years increased from \$29,000,000 to \$83,666,000, while the total earnings of Canadian railways have the working expenses have only increased from \$22,390,000 to \$57,343,000. This expansion of business and increase in profits, he claimed, may be fairly advanced as a justification for the demand for the reduction in rates and a better service. Reference was made to the fact that Canadian roads gave lower rates on American traffic carried through Ontario than they do on Ontario traffic carried over the same lines.

### MR. BUNTING'S EVIDENCE.

Some strong evidence was given by Mr. Bunting, who stated that the fruit growers have not taken the stand they have through any spirit of hostility to the railways. The complaints of fruit growers are, he said, divided into three classes, "Equipment," "Despatch," and "Rates."

Owing to the McKinley tariff having shut Canadian fruit out of the American markets, Mr. Bunting showed how dependent Ontario fruit growers are on the services they receive from the railroads in the transportation of their fruit to their distant markets. The shutting off of this market and the great increase in production

has caused prices for fruit to fall greatly during the last 10 or 12 years. It is therefore imperative that transportation charges shall not be excessive. Cases were quoted which showed how little margin fruit growers frequently have for their products. On 2,502 baskets of mixed fruits, shipped by express from the St. Catharines district, to points between Montreal and Toronto, the gross returns were \$539.27, the express charges were \$335.00, and the commission for selling \$83.90. The gross returns from the fruit were about equally divided between the grower, the express company, and the commission man. Many cases, he claimed, could be given where growers actually realized nothing for their product.

In reply to the claim that in only about one year out of two is there a good fruit crop, figures were quoted which showed a steady and marked increase in the shipments from St. Catharines. These shipments, which in 1898 only amounted to 256 tons of tender fruits, had increased in 1903 to 2,465 tons. It is natural, he claimed, to believe that the general increase throughout the province has been in about the same proportion. The express charges are so high it is impossible to send much in that way. Although speed is essential in the shipment of fruit, the railways refuse to accept any responsibility for delays unless negligence can be proved, which is generally impossible. Owing to delays on the road fruit frequently misses the market it is intended for and consequently has to be sold at a great sacrifice.

Mr. Bunting asked that the classification of mixed fruit in baskets in less than car loads be reduced from first to third class, and in car lots from third to fifth class. If this is granted, instead of it costing growers 33 cents per hundred pounds to ship to Montreal in car lots it will only cost 22 cents. A higher rate is charged for the shipment of pears than for apples. In the case of mixed shipments in the same car the high rate is charged for the entire shipment. Mr. Bunting asked that pears be charged at the same rate as apples.

A material reduction in the cost of icing cars was requested. It was stated that fruit growers will be satisfied if they are simply charged the actual expense of icing each car instead of a flat rate of \$16 per car as at present. On the conclusion of his evidence Mr. Bunting was highly complimented by Commissioners Blair and Bernier for the able manner in which he had presented his case.

### DELAYS IN SHIPMENT.

Evidence along a slightly different line was given by Mr. E. D. Smith, M. P., of Winona, who asked for quicker transportation, better equipment, and the ability to get cars when they are wanted.

Last fall Mr. Smith said he had to wait three weeks at Port Perry for cars for apples. Thousands of barrels were frozen because of the lack of cars. In the moving of less than car lots of fruit there is almost no system at all. A number of cases of slow delivery were mentioned,

including a shipment from Winona to "Woodstock, a distance of 60 miles, which was on the road six days; to Port Perry, a distance of 100 miles, which took 13 days.

Only 25 per cent of Mr. Smith's shipments were on a par with those mentioned. This results in frequent and heavy loss. He asked that if the railways cannot supply cars when called for they should at least state the precise time, two or three days later perhaps, when they could furnish them. Shippers are charged demurrage when they delay cars over a short time, and he thought this rule should work both ways.

#### SOME INTERESTING INFORMATION.

Mr. R. J. Graham, of Belleville, disputed the statement of the railroads that the apple business is confined to two months of the year. Last year between April and August almost 150,000 apples were shipped, the entire export totalling over 1,000,000 barrels. He asked that cars be shipped within at least one week of the order and that the fruit shall be delivered at its destination in a reasonably good condition. A statement from the Dominion Steamship line was quoted which showed that none of their ships from November 28th to March 6th carried freight which was not receipted for as "partly frozen," "frosted" or "chilled," owing to the lack of proper equipment. Apple shippers, he claimed, must have proper equipment or they will be obliged to go out of business.

Complaints were also made of the character of the agents' receipts, which are given at the owner's risk. Shippers are willing to accept the risk if they can get proper cars, but if the equipment is inferior the companies ought to bear part of the risk. Shippers also desire to receive receipts for the exact count, and not "owner's count, more or less."

#### LITTLE ATTENTION PAID TO CLAIMS.

Troubles of the fruit growers in regard to the failure of the railways to furnish satisfactory information concerning claims were described by Mr. H. W. Dawson. These claims are often thrown back to the shippers by the railroads with a disclaimer of all responsibility. He presented over 1,000 claims, about which no satisfaction could be secured.

Mr. Dawson favored a flat rate on fruit shipments, no matter what the value of the shipment. It should not make any difference to the railways whether a car load of peaches is worth \$1,000 or \$400. He had examined his books and found that the claims which were settled by the railways had averaged over a year in settlement. The rate on apples is 150 per cent greater, considering weight, than that on flour, which is given much more protection en route and in transhipping.

#### WHAT THE RAILROADS SAID.

In their replies the representatives of the railroads admitted the correctness of most of the charges that had been made, but claimed that the railroads are doing their best to grapple with the situation.

Mr. Pullen admitted that there is a deficiency of cars, both in number and quality, in spite of the fact that the company has added greatly to its equipment of late years. He could not, however, give any particulars as to the additions that have been made. He claimed that demands for cars for small fruit have been fairly well met. One reason for damage to fruit is that growers will not organize and erect warehouses for the proper storage of their fruit. He read a letter from Mr. J. M. Riddell, local freight agent at Montreal, to the effect that 65 per cent of the fruit cars reaching Montreal last summer up to the close of navigation were in refrigerator cars, which went through in 36 hours.

Mr. Pullen claimed that much of the fruit shipped is over ripe, and that one cause of low prices is the fact that shippers flood the market. The modern air brake causes cars to stop suddenly, which frequently results in the breakage of frail packages. The chief cause of delay in the shipment of fruit is the numerous transfers at junction points. Mr. Pullen would not admit that lack of ventilated cars is responsible for much of the loss complained of. The great cause of delay in train service is due to facilities at stations not having kept pace with the growth of traffic. The railroads are endeavoring to improve these.

#### OBJECTED TO THE PROPOSED CHANGE.

Mr. Bosworth objected strongly to the request of the fruit growers to have the classification of small fruits reduced. Montreal, he claimed, is a dumping ground for fruit, and it is reasonable to expect small returns there. The reduction asked for would put small fruits in the same class as sugar, soap, iron, nails, etc., and as the latter are not subject to injury by delays, the railroads, if forced to handle fruit on the same basis would naturally give these other goods the preference. Fruit growers, he said, want more and better cars, but ask that their fruit shall be carried at a lower rate, although to furnish the improved cars will require money. This he did not consider fair. Were the change made in the classification it would spoil the existing harmony, as the canned goods man, for example, would have a good case to come before the commission and also ask for a reduction. If the fruit growers and the rates will not leave a fair margin of profit the companies are willing to consider the cases on their merits. Mr. Bosworth asked the commission not to make a change in classification, which will effect business from Halifax to Vancouver.

Further evidence will be taken by the Commission.

There are a large number of horticultural papers published in the United States, but only one in Canada, and that is The Canadian Horticulturist. Help us make it a credit to Canada by recommending it to your friends and patronizing our advertisers.

### Average Yield of Apples Probable

Prospects for a liberal yield of apples next fall throughout the province continue bright. In many counties a full crop of most of the leading varieties is expected, while there are very few counties in which a medium yield is not anticipated. The Lake Huron and Georgian Bay district promise to give almost a full crop of the early varieties, conditions in Grey and Simcoe counties being particularly favorable. In Bruce most of the correspondents look for at least a medium crop. Fall varieties do not appear to be doing quite as well. In Lambton, Gravensteins, Fameuse and Bellfleurs will be about a medium yield. Alexander and Colvert promise better. Gravenstein, Fameuse and Alexander in Bruce county will also be only about a medium crop, with brighter indications for Colvert and Bellfleurs. In Grey and Simcoe counties there will be a medium to full crop of all fall varieties. All these counties will probably produce a medium to full crop of the winter varieties, such as Baldwins, Greenings, Spys, etc.

#### THE LAKE ONTARIO DISTRICT.

Counties bordering Lake Ontario promise a medium yield of the early varieties, a medium to full yield of fall apples, and a light to medium yield of winter sorts. Only a light production of the winter varieties is anticipated in Lennox, Hastings and Leeds counties, most of the others reporting that there will be at least a medium crop. In Northumberland many of the fall varieties appear to have been more or less injured.

#### THE SOUTHERN SECTION.

In the Niagara district and along the shore of Lake Erie a medium to full crop of early apples is expected. Kent and Essex counties do not send in as favorable reports. Such fall apples as are grown will probably be a good yield in the best named counties, Essex and Kent running light. Winter apples promise better in all these counties. The yield of apples throughout the province as a whole seems likely to be almost if not quite up to the average.

### Cherry Trees Injured

Cherry trees have been badly injured in almost all the northern counties, particularly in the Georgian Bay district and along the shore of Lake Ontario. Most of the growers reporting to *The Horticulturist* from these sections believe the crop is likely to prove almost a total failure, although some expect to have a light to medium yield.

In the southern portion of the province prospects are more favorable. In Wentworth county a medium yield is probable, although in some sections there has been heavy loss. On the other hand, quite a few reports from this county estimate there will be a full crop. In

the Niagara and Lake Erie counties correspondents expect a light to medium yield.

A report from Wentworth county states that the black aphid has been more destructive this year than ever before. Sour cherries have come through the winter in much better condition all through the province than the sweet.

### Light Yield of Plums Probable

In the June issue of *The Horticulturist* it was announced that the plum crop this year would probably be a light one. A large number of reports received since indicate that this estimate was a correct one. In many sections of the province the crop is reported to be an utter failure, while in others correspondents do not expect anything more than a light yield. Very few of the sections heard from look for much more than a medium crop.

In the Georgian Bay district Simcoe county will probably have a light to medium crop. Reports received from Grey and Bruce counties indicate that the yield will range from a failure to a light one. Along Lake Ontario and in eastern Ontario the severe winter has killed and badly damaged a large proportion of the trees. Some growers are taking their trees up, having concluded that the crop is not a sure enough one for their district. The majority of the reports received from Ontario and York counties indicate that plums will be an almost general failure, while in Halton, Durham, Hastings and Northumberland counties a light to medium crop is expected.

In the southern portion of the province reports are more favorable. Wentworth county will have a medium to light crop, while Welland and Lincoln counties will not yield 50 to 70 per cent of a full crop. Brant county will produce a moderate crop, while Norfolk and Lambton counties will range low. In Essex and Kent counties a moderate yield is anticipated.

### A Small Crop of Strawberries

Reports received as late as June 23 show that the yield of strawberries throughout the province as a whole will be a rather light one. The northern counties, in some sections, promise almost a full crop, but in some of the larger producing districts the crop will be very small. Along Lake Erie and in the Niagara peninsula correspondents expect a light to medium yield. Little more than a medium crop is looked for in eastern Ontario, or in the counties bordering Lake Ontario. Prospects are brighter in the Georgian Bay and Lake Huron sections, where a full production is generally anticipated.

Summing up the reports received from the correspondents in the different counties, the yield will be about as follows: Wentworth medium; Welland and Lincoln, light; Brant, medium; Norfolk, light; Lambton, light to medium; Elgin and Kent, light, and Essex a full yield. Along Lake Ontario light crops are

expected in Lennox and Northumberland counties, and medium ones in Durham, Ontario, York and Halton. Simcoe will have a medium to full crop.

A large yield is expected in Grey county, nearly all the correspondents out of a large number heard from estimating a full yield. Prospects are almost equally as bright in Bruce county. One grower writes that the fruit is of good quality, the first berries having been picked in this section about the middle of the month.

### Pear Orchards Promise Moderate Yield

Prospects for a fair crop of both early and late pears are promising. While many trees were badly injured by the severe weather last winter, orchards as a whole appear to be in pretty good condition. In the Niagara and Lake Erie sections a moderate crop of the early varieties is anticipated in all the counties. Late varieties have not done quite as well, although conditions indicate that there will be a pretty full yield.

In Lincoln Duchess and Anjou pears have suffered considerably; Bosc and Keiffer promise better. Reports from Welland indicate all varieties of late pears will be a light yield. This is also the case in Brant county, with the exception of the Duchess variety, which it is thought will be a medium crop. Essex and Kent county orchards will bear moderately. A very good yield of the late varieties is looked for in Wentworth county, and almost a full crop of early pears. Along Lake Ontario both early and late varieties will be a light crop, except in Halton, which will likely produce a moderate crop.

### Peach Crop Will Be Light

The reports received by The Horticulturist during the latter part of June bear out the correctness of the announcement made last month that the peach crop will be light, especially in Brant, Essex and Kent counties. In Wentworth, Welland and Lincoln counties, and one or two of the light producing counties, correspondents estimate there will be at least a fair to medium crop. Only one correspondent in Essex county places the peach crop as a total failure. Others indicate that the prospects are for a light crop. One grower writes there will be a medium yield where trees were not winter killed.

In Kent county growers expect a light crop. All the reports from Brant county estimate the crop as a total failure. Welland county growers look for light to medium returns, while the Lincoln peach men hope to have a fair to medium yield. In Wentworth county prospects appear to be the brightest of any section, as a large number of the growers expect at least medium returns. It is quite evident that the severe winter has played havoc with the peach orchards as a whole, and that in spite of the fact that there are few insect pests reported to speak of, the crop will be a light one.

### The European Fruit Crop

The Fruit Division, Ottawa, has received from Champagne, Freres Limited, the largest fruit dealers in Paris, the following report: "From special information that we have taken all over Europe, it appears there will be very heavy crops of all classes of pears and apples in France, Germany, Bohemia, Austria, Switzerland, etc., so that they will no doubt injure to a great extent the sale of your Canadian fruit."

Garcia, Jacobs & Co., London, say that the prospects of the English fruit crops are not so good as at first reported. The apple crop is doubtful at present, cold winds affecting the fruit. The best late pears are said to be a failure, with common fruit fairly good. Early pears are falling rapidly and promise only a light crop. The plum crop will not be as good as expected; some districts will have a fair yield, others an entire failure.

### MANITOBA WANTS FRUIT.

Inspector Philon writes the Fruit Division that in Winnipeg the coming demand for first-class fruit, especially apples, will be the greatest in the history of the trade. He, however, repeats previous warnings that inferior fruit is not wanted at any price; only the best will give remunerative returns.

### Something About Apples

"For export, the Baldwin apple," said William Rickard, M. L. A., of Newcastle, Ont., to The Horticulturist recently, "takes first place, everything considered, mainly on account of its first-class carrying qualities and its good color. For home consumption and the United States and western markets, the Spy easily comes first as a winter apple, due to its real and acknowledged merit. In flavor it is the best dessert winter apple we grow."

"The King realizes the best prices of any apple shipped to the old country, but it is not a very profitable apple on account of its poor bearing qualities. The McIntosh Red is not much grown in my section, but it stands high as a shipping apple. The Greening is growing in popularity, although at one time no person wanted it. To-day it stands among the first. It always does well on the Glasgow market, being almost if not quite as good a seller as the Baldwin. It is also the best cooking winter apple we grow in Ontario."

"If I could grow the Snow apple free from scab and well colored, I would want no other variety. They bring good money and will continue to do so for a long time. The trouble is that in my section it is practically impossible to grow them free from scab."

I have about 1,000 apple trees, of which 700 are in bearing. No trees have proved so profitable with me as the Spys. I think the country is selling too many Ben Davis.—(J. W. Jones, Brighton, Ont.)

### Officers Were Elected

Preliminary arrangements for the big fruit, flower and honey show, to be held in Toronto next November, were made at a meeting of the joint committee, appointed by the different organizations interested in the show, which took place Wednesday evening, June 8. Those present included Messrs. Edward Tyrrell, J. McP. Ross, Chas. Chambers and W. G. Rook, of the Toronto Horticultural Society; J. H. Dunlop, T. Manton and W. H. Foord, of the Gardeners' and Florists' Association; Bernard Saunders, of the Electoral District Society; P. W. Hodgetts, representing the Fruit Growers' Association, and H. B. Cowan, representing the Ontario Department of Agriculture.

The first business included the election of officers, which resulted in the appointment of Mr. R. J. Score as president, J. McP. Ross as vice-president; H. B. Cowan, secretary, and P. W. Hodgetts, treasurer. On motion of Mr. Rook, seconded by Mr. Saunders, Mr. George Mills was appointed to act as the superintendent of the floral exhibition at the time of the show. It was decided it would be necessary to have sub-committees. Messrs. Charles Chambers, Franklin, Bunting and Dunlop were appointed to act as a finance committee, and Messrs. Rook, Manton, Hodgetts and Simmers as an advertising and printing committee. On motion of Mr. Manton, seconded by Mr. Dunlop, it was decided that the chairmen of the

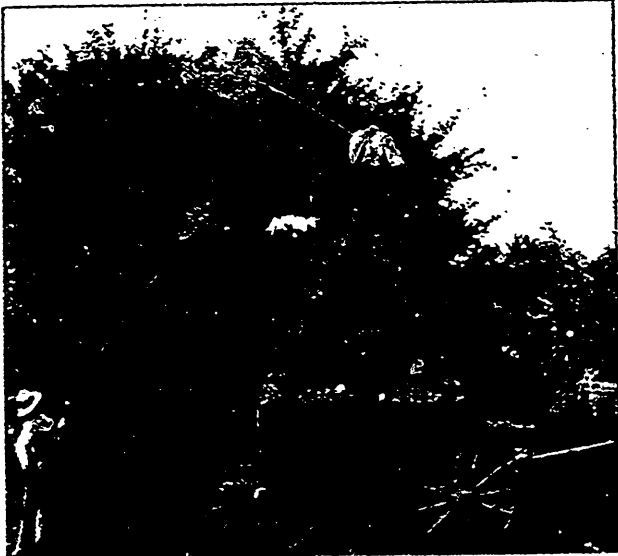
various sub-committees must be members of the general committee, but that the sub-committees would have power to add to their numbers. A prize list for the floral show was submitted and adopted on motion of Mr. Manton, seconded by Mr. Foord. This prize list is published in this issue. A motion by Mr. Manton, seconded by Mr. Rook, was carried, instructing the secretary to engage the two Church street rinks for the purpose of the exhibition on the terms agreed upon between the representatives of the rink and the representatives of the different associations.

### Holding Garden Competitions

There has been a great increase in the number of entries this year in the garden and lawn competitions held in the city of London.

There are eight classes, including one for the best front lawn and surroundings, for which \$57 are offered. Class 2 is for the best back garden, \$57 in prizes being offered for this class also. The third class is for the best new premises, showing the greatest improvement, where the house was not occupied before October 1. Other classes include best window boxes in business premises and best window boxes in private houses. Prizes will also be given to residents of a block which as a whole presents the best appearance during the season.

In a school competition \$120 in plants, bulbs and seeds will be divided in twelve prizes.



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**Our Monthly Weather Report**

**REPORT OF THE WEATHER TO JUNE 20.**

The mean temperature of the first ten days of June was below average, excepting in Algoma and in districts lying near the Georgian Bay and Lake Huron, where there was a mean positive departure of 1.5 to 2.5 degrees. The negative departures, which were the more widespread, prevailed from the southwestern counties northward and eastward along Lakes Erie and Ontario to the Ottawa and St. Lawrence valleys, being most pronounced (two or three degrees) between Ottawa and Montreal and near Toronto. During the second ten days Algoma alone showed a positive departure, all the remainder of the province being below average by amounts ranging from about two degrees near Lake Ontario to half a degree in the Ottawa valley and near the Georgian Bay.

While very few June reports have been received to date, it is probably approximately true that the rainfall of the 20 days has been excessive in nearly all parts of the province, excepting the Ottawa valley, where it was just average, and in most counties of southwestern Ontario and immediately to the east of Lake Huron, where there has been a considerable deficiency.—(R. F. Stupart, Director Dominion Meteorological Service.

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MUSHROOM SPAWN**

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When applying for the \$10 bonus they must inform this office of the name or names of the advertisers they dealt with and the value of the goods they purchased from each. Application for this bonus must be made to this office on or before August 18th, 1904.

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Its rays have the same spectrum as daylight; it is therefore superior to electricity.

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is removed in large quantities from the soil by the growing of crops and selling them from the farm.

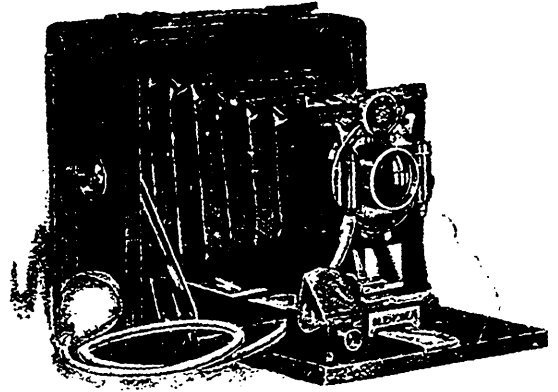
Unless the Potash be restored to the soil, good crops can not continue.



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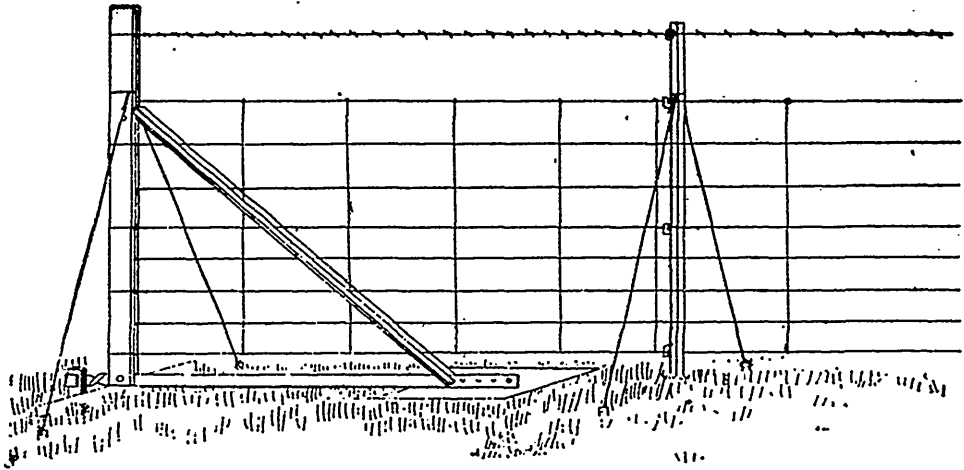
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100 rods of PORTABLE FENCE is of more use than 300 rods of STATIONARY FENCE,  
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