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# The Canadian Horticulturist

Vol. XXXVI

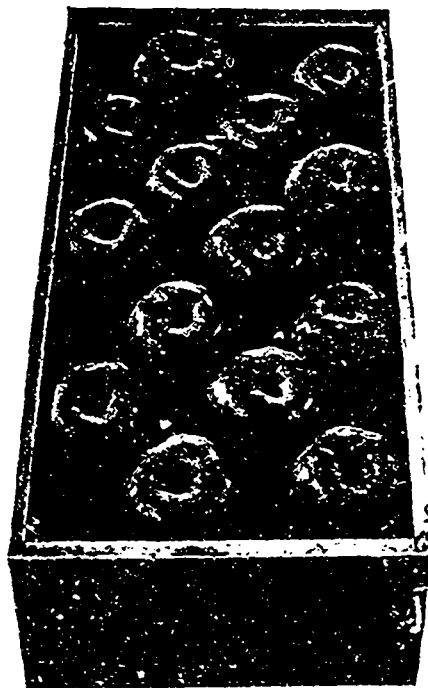
NOVEMBER, 1913

No. 11

## Hints to Box Packers

E. T. Palmer, Ont. Dept. of Agriculture Toronto, Ont.

**P**ACKING is placing fruit of the same size solidly in boxes in such a manner as to insure uniformity of appearance, neatness and protection from bruising. The purpose of careful packing is to make the box of fruit as attractive as possible to the purchaser, and obtain thereby for it the highest possible price. The few hints here given are intended as a help and a guide in obtaining a good commercial pack.



The 2-2 Diagonal Pack. Fig. 1.

I would emphasize first the point that only neat and clean boxes of properly gauged lumber should be used. It is a faulty plan to use packing boxes "just once" for packing the fruit in.

If the fruit is not to be wrapped it is advisable to line the box with lining paper cut especially for this purpose. Two pieces are required for each box, and in placing the paper in make allowance for the bulge on the box after it is nailed up.

A convenient packing table is important. The surface area of the table should not, as a rule, be greater than three feet by four feet, as anything larger will not allow two packers to reach all points of it without unnecessary stretching. Larger tables may be used if there

are four packers to a table, but as a general rule their use is to be avoided. There is too much fruit in one pile, and furthermore two packers at one table can work to better advantage than can four.

### THE METHOD

The fruit should be carefully graded before packing, particularly for inexperienced packers. Good packers, too, will do better and faster work where this is done. Unless the fruit is sized properly it cannot be made to fit evenly and snugly. It is essential that a man be able to size an apple properly, else he will never make a packer. One should grade for color as well as size and freedom from blemish.

Stemming the top and bottom layers of the box is a practice that has been given more prominence than it deserves. When apples are being packed in barrels stemming is quite possibly an economic operation, but for box packing, where practically half the apples would have to be stemmed, it is not—it is too costly. It means an increase of approximately one-third in the cost of packing. Rather than stem the apples for the top and bottom tiers, pack the fruit calyx-end up or on its side.

Space will not permit of a discussion of styles of packs. The accompanying illustrations show the principal style, the diagonal, figure one, shows a two-two diagonal pack, and figure three, a three-two diagonal. The other two principal styles of packs, the straight and offset, are defective, and should be avoided. But remember that the style of pack is not so important as having the fruit packed well. That is a uniform, neat and attractive pack with the least amount of bruising possible. Vary the style of pack to suit the shape and size of apple so that the fruit may always be shown to advantage in a good commercial pack. It becomes almost absolutely necessary to use such packs as the riff-ruff and offset at times, as certain sizes and shapes of apples will not pack to advantage any other way. But, as previously stated, such packs are defective and therefore to be avoided whenever possible.

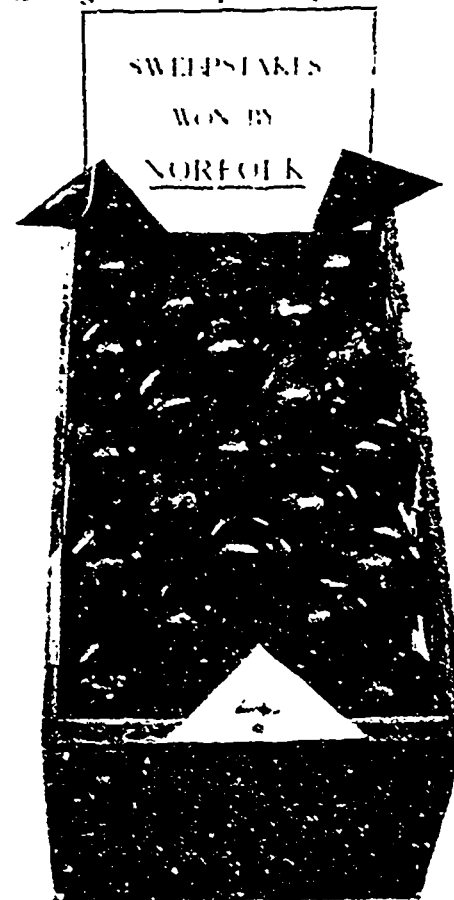
### ESSENTIALS OF A GOOD PACK

Whatever the style of packing used—whether it is straight, diagonal or offset—the essentials of a good pack—firmness, regularity, correct bulge, smoothness and finish—should be kept constantly in mind

by the packer. The pack must be so firm that there is no chance for the fruit to shift in any way. To prevent this it is almost necessary that each apple touch all those surrounding it in the proper way. This means that one style of pack, and practically one size of apple, must be used throughout for each box. On no account should a box be started with one size of apple and finished with another, nor should the style of pack be changed, otherwise unnecessary bruising is almost sure to result.

### PROPER BULGE

Proper bulge is one of the hardest things for a beginner to secure. A bulge of one and a quarter to one and one-half inches, counting both top and bottom, is sufficient. A bulge of two inches or more is unnecessary and undesirable, as the fruit is more liable to be bruised. As bulge is an important point and one



A 3-2 Diagonal Pack. Fig. 2

This was the sweepstakes box, packed by the Norfolk County Fruit Growers' Association and shown at the Ontario Horticultural Exhibition in 1912.



### Grading and Packing

Orchard of Charles Patchett, Cooksville, Ont.

of the hardest for the beginner to master, it will be dealt with more in detail.

In the straight pack, before the lid is nailed on, the apples at either end of the box should come up a little better than flush with the top. With the diagonal the ends should be a little higher—about one-fourth to three-eighths of an inch in all. Then from either end there should be a gradual bulge amounting at the middle of the box to about one and a half inches. Thus, when the lid is nailed on, there will be a bulge of practically three-fourths of an inch each on top and bottom. Less bulge is desirable with the straight packs on account of their unyielding nature. There is no settling of the apples into the crevices as in the diagonal.

The proper bulge is obtained, in the straight pack especially, by selecting apples that are a trifle smaller for the ends. With apples that are being packed on the cheek, it sometimes becomes necessary to turn the end rows flat to secure the desired bulge, and, at the same time, have the ends low enough. When it becomes necessary to do this, the ends of two layers at one end of the box, and the ends of the other two at the other end of the box should be turned, otherwise one end will be two high and the other too low.

#### SECURING THE BULGE

In the diagonal pack, the small spaces left at the end of each layer aid materially in securing the proper bulge. This, and pulling the apples tighter towards the centre of each layer, is sufficient to give the necessary bulge in wrapped fruit. By packing closer in the centre you close the pockets between the apples more, the next layer will not sink so deep, and, therefore, the centre is built up. The

ends being left a little looser, the pockets are opened a little more, the apples drop in further and do not build up so high. Practice will give the knowledge of just how high to pack the centre or how loose to pack the ends.

When the fruit is not wrapped, this difference in firmness cannot be made and the packer has therefore to take advantage of the small irregularities and differences in size of the apples. This difference in size must not be so great as to attract attention. It is essential to begin the bulge with the first layer of fruit and to pack each layer with the same end in view.

In finding a pack too flat it is usually no use to repack the top layer, as the trouble probably extends through the box. The bulge should form an unbroken arch so that the pressure of the lid will be equally distributed over the fruit. A bulge high in the centre and dropping off to the sides will not be held firmly in place by the cover, causing the whole pack to become loose.

#### WRAPPED AND UNWRAPPED FRUIT

In wrapped fruit the top of the box should be packed last, while in unwrapped fruit the top is packed first. Packing the top of wrapped fruit first is a poor method and should be discouraged, as the smooth side of the wrapped fruit has to be turned down, and the consequent loose ends projecting, are very confusing to the packer, making his work considerably slower.

Only number one fruit and possibly number two of the winter varieties should be wrapped. All fruit intended for distant markets as Great Britain, should be wrapped, unless unwrapped fruit is desired, as the fruit carries much better. Wrap, too, for markets where there is no competition with wrapped fruit from other districts.

Smoothness and finish to a pack are very essential. Contrary to a fairly common belief, the box alone will not sell the apples. The high prices rely in a large measure on the appearance of the pack, which should be regular in size and perfect in alignment. If the fruit is wrapped, smoothness of wrap is of great importance.

#### PILE BOXES ON THEIR SIDES

Nail the lids on the boxes as they are packed, and pile them on their sides, as the sides, having no bulge, do not bruise the fruit.

Clear the packing table several times during the day so that no fruit becomes bruised from continually "pawing over."

Avoid turning the stem of one apple to the cheek of another, for the stem is likely to puncture the cheek and destroy the apple, especially for storage. This is the objection to the riff-raff pack.

When wrapping use the proper size paper for the apple. Using paper too large or too small increases the labor of

wrapping, and further gives a defective pack. Use paper nine by nine inches for fruit of the general size of Snows, ten by ten for medium sized fruit—that is fruit of about two and three-quarters to three and one-quarter inches diameter. For larger fruit use ten by twelve and twelve by twelve.

Mark the number of apples in the box, rather than the tier. The designation by tiers is misleading to buyer and consumer alike.

One last point: Keep your pack above the requirements of the "Fruit Marks Act."

### Why Norfolk Apples Lead

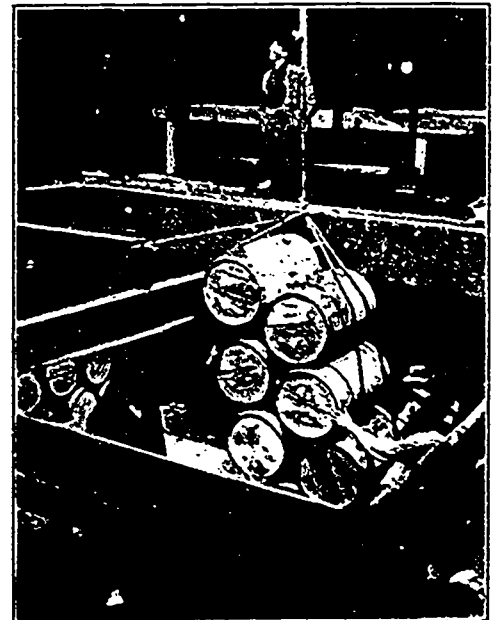
J. E. Smith, B.S.A., Simcoe, Ont.

For several years past Norfolk county has occupied the premier place with her fruit at the Ontario Horticultural Exhibition. Ever since the inception of this big fair, she has invariably had a wide margin on the remainder of the province with her splendid display of high quality apples.

The outsider naturally is led to believe that Norfolk county must be one large orchard with something exceptional about the soils and climate that gives to the fruit its high color and quality. But have you ever visited old Norfolk? When you do, you will not be impressed with the extent of her bearing orchards. The outsider must conclude after a trip through the county that it is a mixed farming district, with a slight emphasis on wheat and dairying in some of the townships.

#### FRUIT COMES FROM OLD ORCHARDS

True it is that large areas—even as high as five hundred acres—have been and are being set out to fruit throughout the county, but the older bearing orchards are but of a few acres such as are found almost anywhere over the pro-



Loading Apples on the Steamer at Montreal



#### Ontario Apples Ready for Shipment to the Western Markets

Some idea of the extent of Ontario's consignments of apples to the west may be gained from this illustration, which represents one day's shipments at Point Edward, Ont., to the west.

vince. There is, however, this difference: Norfolk farmers have learned that the small area on which their orchards stand could be made the most profitable part of their farm. It took time and patience to show this, but under the practical stimulus of Jas. E. Johnson, the energetic manager of the Fruit Growers' Association, this has been realized.

It is from these orchards, scattered all over the county, that the high class fruit is secured for the Toronto Fruit

Show. How do they select it? This is done very systematically. In estimating the amount of fruit the association will have to market, notification is given where the best fruit is being produced for that season.

In doing their picking and packing in the fall, these growers are able to forward some of their best to the central storage in Simcoe where it is later carefully sorted and packed in the boxes as you see it each year at the Exhibition held in Toronto in November.

### More Anent Fall Plowing

F. W. Brady, Kamloops, B. C.

I have read with interest the article on fall plowing which appeared in the October issue of *The Canadian Horticulturist*. As my first experience with fruit was obtained in the Cornwallis Valley of Nova Scotia, I know that with the conditions under which Mr. Blanchard writes, fall plowing may have some advantages. In the interior of British Columbia, and in the colder parts of Nova Scotia, New Brunswick, Quebec or Ontario, however, I would not advise fall plowing under any circumstances. It is directly injurious.

The practice of sowing a cover crop has become general in these colder districts. The great advantage of this cover crop is that it holds the snow, prevents deep freezing of the soil and thus protects the roots during winter.

During the winter of 1907-9, I demonstrated in the Kootenay district the benefit of having a cover crop. Of two orchards side by side, one had a cover crop the other had not—in the latter about

twenty-five per cent. of the trees winter-killed. When plowed under in the fall the protection which a cover crop affords is lost. Then, too, fall plowing opens up the soil, the roots dry out, and winter killing results.

#### DANGER IN MILD DISTRICTS

Even in such favored sections as the Annapolis Valley or the Niagara District fall plowing has its disadvantages. If begun too early, as in September or early October, the trees may take on renewed vigor and not become fully dormant, hence winter injury results.

With cover crops which live over the spring, much additional humus is added to the soil if they are not plowed down in the fall. Although fall plowing increases the amount of available plant food it is an open question in my mind if any gain may not be lost by washing and leeching of the soil. When fall plowing is practiced the furrows are generally thrown against the trees. Quite often the soil freezes to the trunks, the bark is injured

and collar rot or canker may set in. Should the orchard be in bearing it is a much easier matter to work under the trees in the spring because in the fall the branches have not had time to gain a more upright position after having been bent down with a load of fruit. Late fall or early spring spraying with concentrated lime sulphur or white wash is a much more pleasant operation when one is not obliged to drive over furrows.

#### A DIFFERENT VIEW

Whether or not time is saved by fall plowing is, I believe, a debatable question. More particularly when a large crop is to be handled, the energy and equipment of the grower are then taxed to the limit to get the crop picked, packed and marketed. Under such conditions it is advisable to put off plowing until the spring and begin then as early as possible.

### The Fall Web Worm

A pest frequently noticed in the orchard during the month of August is the fall web worm (*Hyphantria textor*). This insect should not be confused with the tent caterpillar (*Malacosoma americana*), which builds its nest earlier in the season. At the time when the web worm appears on the branches of the trees the tent caterpillar is in the egg stage.

Close observation will reveal that these two insects are quite dissimilar in habits. Probably the most notable difference is in the character of the web. The web of the tent caterpillar is usually found in the crotch of limbs, while that of the web worm is generally seen on the ends of the branches. The tent caterpillars remain in the web during the night, or when resting, and emerge only at feeding time. The web worm does not leave the web at all and extends the web as new feeding ground is required. For this reason the web becomes very unsightly, being filled with the cast-off skins and excrement of the insects. In feeding habits these two insects are also quite different. The tent caterpillar devours the whole leaf, while the web worm feeds only on the upper surface, giving the leaves that characteristic brown appearance.

The parent moth of this caterpillar is pure white in appearance with occasional black spots. It spends the winter in a cocoon and appears in early summer. The eggs are laid in patches on the under side of the leaves. The caterpillars emerge in July and August, and at once proceed to form their web. When full grown they are about one inch in length. They then spin their cocoon and pass the winter in this stage.

The most convenient method of combating this pest is to cut off the webs as soon as they are noticeable. As the webs are usually found at the ends of



Gathering the Apple Crop—Orchard of E. J. Hibbert, Kentville, N.S.

the branches little damage is done to the tree by removing them. Spraying with arsenate of lead or Paris green just before the caterpillars are due to make their appearance is an effective remedy, but most orchardists do not care to spray this late in the season. Sometimes enough poison remains on the leaves from the last spray for codling worm to be effective in destroying this pest. Keeping a sharp lookout for the webs and removing them is about the only remedy necessary.

### Storing Fruits

Henry Gibson, Staatsburg, Ont.

Fruit as a general thing is best when it fully ripens on the tree, but the winter sorts of course do not ripen until some time after being gathered. One cannot be too careful in gathering fruit. Careless picking and packing may show no bad results at the time, but every bruise, no matter how slight, is liable to develop into a rot spot under the first favorable circumstances, and spread ruin to the lot.

Apples and pears should be kept in a cool, dark place where the air is cool, but never wet, and where the temperature will not go below freezing. They should be stored loosely and not more than half a foot to a foot thick on slatted shelves. If such conditions do not obtain with you and they must necessarily be kept in a dry, heated place, pack, using only perfect fruit, in tight boxes or barrels, or in sand, moss, or leaf mould to prevent shrivelling.

The man in the orchard is always a good citizen

### Varieties of Plums

Prof. J. W. Crow, O.A.C., Guelph

In plums, the three most profitable varieties in the best plum districts are Burbank, Bradshaw, and Reine Claude. As an early plum of fine appearance and quality, Shiro is coming into favor. Burbank is valuable for early shipment, but should not be marketed until it has attained a fair degree of maturity. If placed on the market in an immature condition, it will sell because of its splendid color, but is a disappointment to purchasers.

In cherries, the one variety of greatest value is Montmorency. Richmond is also valuable on account of its earliness, but I know of no other varieties which are worthy of extensive planting. Sour cherries, such as the two varieties mentioned, may be successfully grown in all the lake districts and throughout most of older Ontario. The sweet cherry is capable of much less extensive cultivation in a commercial way; in fact, there are very few districts in the province which can grow sweet cherries successfully in comparison with the sour varieties.

The orchard should be cultivated as early in the spring as possible.—Prof. J. W. Crow, O.A.C., Guelph, Ont.

The shot-hole borer cannot reproduce in a healthy tree. It will attack a tree lacking vigor. To prevent infection, it is a good thing to see that the dead trees are taken out before the first of April.—Prof. L. Caesar, O.A.C., Guelph, Ont.

### Ontario Fruit Wins

D. E. Lothian, B. S. A.

To successful fruit growers in Ontario the announcement lately made that the province had achieved great success, first at the Cleveland, and later at the Canadian Apple Show in Winnipeg, will not come as a surprise. Time and again the provincial fruit authorities have told us that Ontario fruit so far as flavor is concerned, is quite as high, if not higher in quality than the best fruit in the West. It is still the old complaint that the only thing which deters Ontario fruit from taking its rightful place, in the competitions, is the lack of care in packing, and handling the fruit before packing, on the part of those engaged in the business.

Those who were chiefly successful in the late show at Winnipeg, were W. L. Hamilton, of Collingwood, and The Bethen Break Orchard Co. of Waterdown. The Ontario government also got a first prize for their show of apples, peaches, grapes, pears and plums.

While we do not expect that Ontario growers can make any sudden change from the barrel to the box pack, in order that their fruit may compete successfully with that of British Columbia and the Western States, still we think that these results should tend to bring them around to the idea that the box is not too high a class package for well cared for fruit grown in this province of Ontario. Our best growers have no doubt long recognized this as the actual state of affairs, but commercial success is dependent not on the few recognizing the situation aright, but rather on the combined effort of the masses towards adopting cooperative packing of a high class nature.

### Destroy Tent Moth Eggs Now

David Roxburgh, Montreal

For many years past we have been troubled in the early summer with the caterpillar scourge. Each successive year has proved to be more severe than its predecessor. In past years we have always been too late in dealing with this pest. As a timely suggestion now that the trees have undergone defoliation, in the case of young orchards at least, we would recommend that the egg clusters which are laid on the younger twigs of the trees, be removed.

The egg clusters are very clearly visible and appear like thickened abnormal wood growth, but when observed more closely they are found to be white, with a brownish covering. In the case of older orchards, where the branches are too high, it is probably better to wait till the early spring and to burn the tents immediately they are formed by the young caterpillars.

# Seasonable Suggestions for Garden Work

Henry Gibson, Staatsburg

**T**HERE is no time of the year that offers greater opportunities for getting ahead with the work in the garden than the fall. Work done at this season will facilitate operations when nature rouses the occupants of the garden from their winter's rest in the spring. If work is left over until then, it will probably not be done at all.

There is no better time for preparing the ground for the roses you intend to set out next spring. An open, sunny position, sheltered from boisterous winds, is an ideal location for a rose garden. Roses will do tolerably well in almost any good garden soil, but for best results a fairly strong, retentive loam, such as will keep the roots cool and moist, is essential. Spade out the soil to a depth of two feet. In the bottom place six inches of clinkers, brickbats, or other material that will ensure good drainage. Over this, to prevent the finer soil clogging the drainage, place a layer of marsh grass, hay or straw. Fill up with the remainder of the soil, to which should be added a liberal dressing of thoroughly decayed barnyard manure. Raise the bed somewhat higher than it was originally to allow for settling during the winter.

Continue to harvest vegetables, clean and spade the land. Nothing looks worse than an untidy vegetable garden. Old leaves and rubbish left lying round make the finest possible medium for insect and fungus pests to hibernate in during the winter, only to give you more trouble next year. Therefore, clean them out and save yourself a lot of need-

less worry, and perhaps some valuable crops.

If your garden has received large quantities of barnyard manure year after year, a good dressing of lime will be beneficial, in fact a necessity. Lime disintegrates or lets loose, as it were, valuable plant foods in the soil which are otherwise unavailable. Half a ton per acre of fine ground or air-slaked lime will be enough. Spread it on as evenly as possible, and then rake it in.

Potash manuring is indispensable if you would have your garden produce a maximum yield, but there is danger from burning if a high grade of sulphate or muriate of potash is used in the spring, hence it is better to do it now. An average of two hundred pounds per acre of either of the above-named forms of potash will be sufficient, and the harmful liming qualities will have been washed away before next growing season.

Basic slag is to be recommended as the means of supplying phosphoric acid to the soil, and it is generally conceded to be the best and cheapest means to this end. Where results are expected the next growing season, it should always be applied in the autumn. A finely ground sample is the most quickly available, and produces the best results. About one thousand pounds per acre or a little more will be all right.

These suggestions are just as applicable to the orchard and small bush fruits such as gooseberries, currants and raspberries as they are to the vegetable garden.

Pruning of the small fruits, such as currants, gooseberries, and raspberries, should not be overlooked. This work is



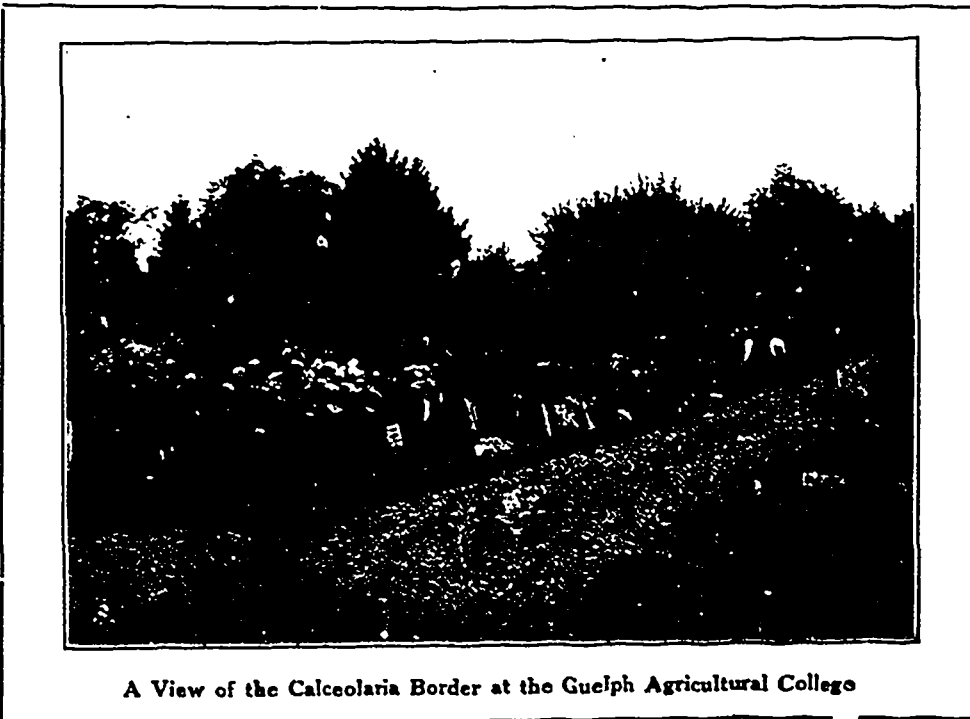
An October Blooming Rose

This rose bush, on the lawn of Mr. R. W. Turner, Peterboro, Ont., produced some 100 blooms last summer, and bloomed again last month.

best performed during mild weather, and the amateur with only a small collection may easily choose his time for this. In pruning currants, the new wood should be kinned out, where it is very dense, to allow free access of light and air to the centre of the bush, the main shoots shortened back about six inches, and the spurs cut close in. Red and white currants carry their crop on spurs, and shortening back the main shoots encourages the formation of these. With black currants, however, the case is different. They bear next season's crop on the wood produced during the past season, and in pruning every effort should be made to preserve the young wood so as to replace the old which does not produce good fruit. Black currants should not be pruned to spurs. With gooseberries the spurs should be preserved and the strong ripened shoots of the previous summer retained as far as practicable.

## CANE FRUITS

Raspberries should have all the old canes cut away. The young canes which are to fruit next year will stand the winter all the better for the ripening they will get by the increased exposure to the sun as a result of cutting away the old canes. Raspberries that are tender



A View of the Calceolaria Border at the Guelph Agricultural College

should be laid down and covered with soil for the winter.

Do not mulch the strawberries until the ground freezes. If you do the field mice will make winter quarters under the mulch and will feast on the buds, destroying next year's crop.

Likewise mulch the bed of tulips, hyacinths, and other bulbs that have been set out this fall. Do it when the surface of the beds is nicely frozen. Leaves are useful for this purpose and can be kept in place by old pine boughs.

Speaking of leaves, have you gathered any for making leaf mould for potting purposes? Do it now; you couldn't have a better time. There's lots of them blowing about just now. Collect all those that lie about the house and on the lawn, pile them up in a quiet corner where they are not likely to be disturbed by the wind. They will make fine material for using with your potting soil next year.

Then there's soil for potting purposes which you will no doubt require before the snowflakes have ceased to fly, especially if you grow plants in the house, or you happen to have a small greenhouse. Quite a few bushels may be stored under the greenhouse bench, or if you have no such structure, it can easily be kept in the cellar, and will always be handy.

The lawn, too, requires some attention in the way of protection. Last year you covered it with stable manure. This not only looked unsightly until Dame Nature came to your assistance and hid it under her mantle of white, but it left unsightly patches of yellow, where the manure happened to be rather thick, which took some time before it disappeared in the spring.

This year try some pulverized sheep manure. It is dry and pleasant to handle, and can be spread on very evenly. It does not look offensive. In the spring rake it in instead of off as you did the stable manure. Sheep manure is a valuable fertilizer, and will greatly benefit the lawn.

As long as the weather keeps open so that outdoor operations are possible, just look round the grounds and see if there are not some improvements that could be made. Is there not some track across the lawn leading to a flower bed or some shady spot where a neat path would look better than an uneven track? You can do the work yourself or supervise some unskilled laborer. There's no need to call in a professional landscape gardener. If a straight path, mark it out with a string, or if a graceful bend then use some small stakes, which can be moved in or out at will until your curves are just right.

Cut the hedges evenly with a sod edger or sod cutter, and remove the sod

and soil. This can be used for the compost heap or for some bed that needs raising a little. The width of the path will, of course, depend on what it is used for, and on its harmonizing with other features of the place.

Dig the soil out to the depth of fifteen



#### Angels Trumpet

This magnificent plant, owned by Mr. Bernard Baker, Whitby, Ont., has borne as many as fifty perfect flowers at one time. The average size was twelve inches in length and five to six inches across.

inches. place into this excavated path clinkers, coarse gravel, coal ashes, or other coarse material, filling it to within two inches of the top. Pound down thoroughly and then fill in with fine gravel a little above the surface of the lawn, taking care to have it well rounded up in the middle. If possible, let the lower layer stay a while before putting on the top one, but the other should be in place and pounded down before the ground freezes. The advantage of making paths in the fall is that they have a chance to work down into a permanent position before the spring.

#### Wintering Roses

By an Amateur

The only winter protection necessary for hybrid perpetuals or hybrid teas is to hill them up after the ground has been frozen once or twice in the fall. Too heavy an application of manure at this season is apt to hold too much moisture. It is well to stop cultivation about the middle of August in order to give the plants time to ripen up their new wood.

The matter of pruning is something which must be learned by experience, as all roses do not require the same treatment. In the fall after the first frosts, all long canes should be cut back to about three feet. This prevents the plants being whipped about by the wind and loosened. In spring, before growth begins, the regular pruning should be given, always bearing in mind the general rule that weak shoots should be cut back more severely than strong, vigorous ones. The longer the wood is left, the more blooms, but at the expense of quality. All dead wood should, of course, be removed, and it is well to treat all very weak stems the same way.

Climbing roses being grown chiefly to ornament the garden and not for their value as cut flowers should only have the dead canes removed and probably one cane cut back each season in order to have some foliage near the base of the plant. Nurserymen's catalogues contain long lists of varieties in the several classes, and while it is no doubt interesting to test a number of varieties, the finest rose beds are not composed of great mixtures of color. Beds of one color make the finest display. The question as to what are the best varieties is a hard one to answer, as tastes differ, but the following list will prove satisfactory to most people:

Frau Karl Druschki, the finest white rose grown. It only lacks perfume to be perfect.

Clio, flesh colored, somewhat deeper in color at centre.

Mrs. John Laing, soft pink, one of the free flowerers.

Mrs. Crawford, similar to Mrs. J. Laing.

Paul Neyron, deep rose of the largest size.

Captain Hayward, scarlet crimson, large and very sweet-scented.

Hugh Dickson, crimson, very free bloomer.

Ulrich Brunner, cherry red, large size and fine form.

Mrs. P. Wilder, cherry red, free bloomer, and very fragrant.

Killarney, a hybrid tea, very free blomer, having long pointed buds of a beautiful pink and white color.

A bed of ten each of these varieties will be a very handsome addition to any garden.

Peachblow Hibiscus does not flower well in the window in winter. They require rather high temperature for flowering. All of this class of Japanese Hibiscus are best partially rested during the winter in a very cool window or in a cellar, temperature forty to forty-five degrees, and should be re-potted in the spring to flower during the summer.—Wm. Hunt, O.A.C., Guelph, Ont.



## Perennials Grown as Annuals from Seed

Wm. Hunt, O.A.C., Guelph, Ont.

**T**HERE are a great many kinds of perennial plants that can be grown from seed, and give good flowering returns the first summer. Many of them are among the most effective summer flowering plants we have. To secure the best results, the seed should be sown early indoors in the greenhouse, hot bed or window. Unless the seed is sown earlier in the season than it can be sown out of doors, the plants do not flower until the season is well advanced; often not until the early frosts mar the beauty of the most tender kinds, so that it is very necessary to sow the seed early in the spring indoors.

Some of the best kinds that will help to make the border gay and bright, and that are easily grown from seed, are petunias, verbenas, antirrhinums (snapdragon), pentstemons, salvia, ageratum, golden feather, centaurea gymnocarpa (Dusty Miller), and lobelia. These are all suitable for planting in masses, rows, or groups in flower borders. Antirrhinums, pentstemons and salvia grow from two to three feet in height. Salvia splendens will grow to a height of three feet or more, while the variety "Zurich" or "Bonfire" grows to only about half that height. Petunias and verbenas are lower growing, about twelve to fifteen inches, while the four last named are dwarfed, growing six to eight inches, and are more suitable as edging plants for the border. All of these plants named are also suited for window or verandah boxes or for hanging baskets, if they are not placed in a too shaded position in summer.

Salvias particularly like an open, sun-

ny position to produce their long, brilliant, scarlet spikes in late summer and early fall. The pentstemons are very attractive border plants, the gloxinoides type having long spikes on which grow numerous large, bell shaped flowers, beautifully marked in a variety of shades and tints varying from almost pure white to a deep purple. The beautiful flowers of the pentstemons and their ease of culture, fully warrant their being grown more extensively than they are at the present time. The improved types of antirrhinums that have been introduced of recent years have also brought these old-fashioned plants into great prominence as bedding plants. These can be had in tall and dwarf growing kinds, one foot to nearly three feet in height. The dwarf kinds make a beautiful massed bed of themselves.

The large flowering "Giant of Califor-

nia" petunias have beautifully marked flowers of immense size, the fringed type of petunias are also very attractive. Some of the smaller flowering compact growing petunias are also becoming very popular as bedding plants. There is probably no plant that will give a larger quantity of flowers and more continuous than the petunia. The large flowering type of verbenas make a very effective border plant. Their bright flowers can often be found late in the autumn, long after the other summer flowering plants have been blackened and killed by frosts. This makes the verbenas doubly acceptable as a summer bedding plant.

The dwarf blue ageratum like a rather sunny position, while the rich blue flowers of the lobelia are produced best in a not too sunny position. The Tom Thumb or Crystal Palace type of lobelia is the best for an edging plant, while the taller loose growing kinds are better for the front of windows or verandah boxes.

## The Culture of Flowering Bulbs

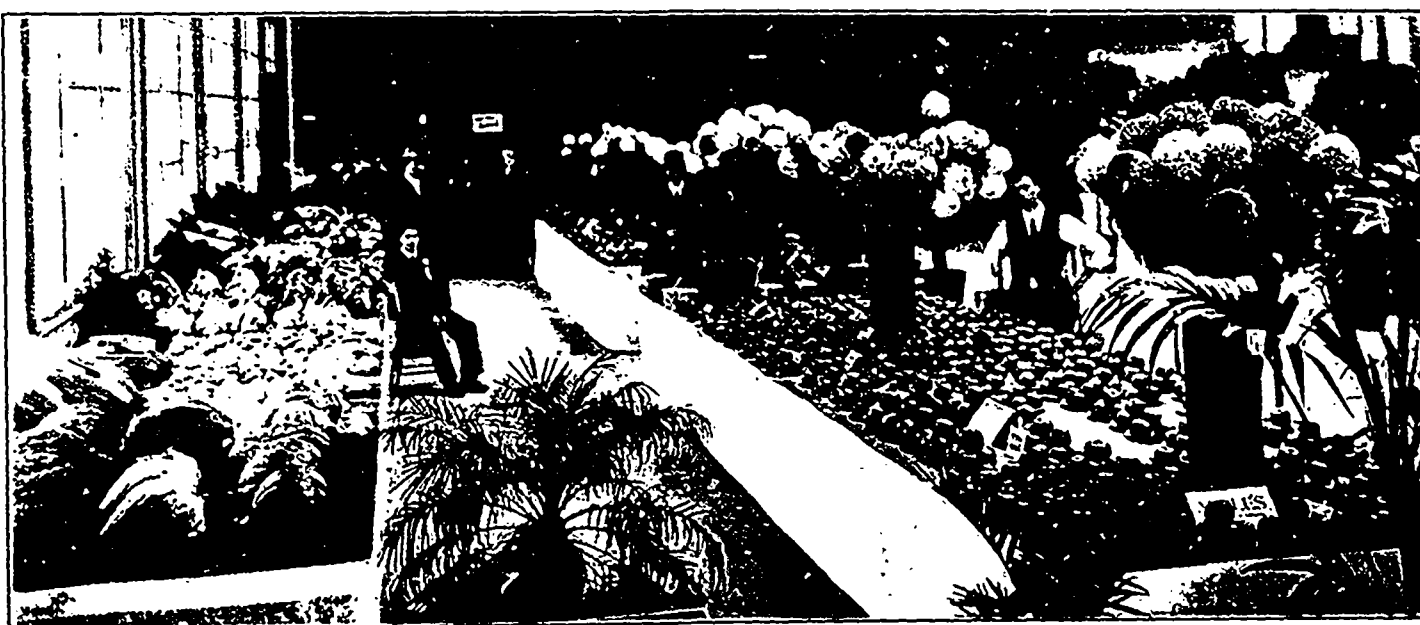
By H. F. East, Davisville, Ont.

Our popular flowering bulbs are obtained from many lands. They are exceedingly diversified in character, and they bloom at different periods of the year. Each variety has a value of its own, and answers to some special requirement in its proper season under glass or in the open ground. Not least among the merits of Dutch bulbs is the ease with which they can be forced into flower at a period of the year when bright blossoms are particularly precious. Bulbs endure treatment that would be fatal to many other flowers. They can be grown in small pots or be packed together in boxes or seed pans.

When near perfection they can be shaken out, and have their roots washed for glasses, ferneries, or for a small aquaria.

Their hardiness, too, is an immense advantage, and permits of their being grown and flowered with the least aid from artificial heat. Small beds and borders may be made brilliant with these flowers, and the number of bulbs that can be planted in a very limited space is somewhat astonishing to the novice. Unlike many other subjects, bulbs may be crowded without injury to individual specimens.

For the decoration of windows, no



Some of the Flowers, Fruit and Vegetables shown at the Ontario Horticultural Exhibition 1912. The Exhibition this year will be held November 16th to 22nd.



other flowers can compare with Dutch bulbs in variety and brilliancy of color. The secret of their accommodating nature lies in the fact that within the hyacinth or tulip every petal of the coming flower is already stored. During the five or six years of its life in Holland, all the capacities of the bulb have been steadily conserved, and we have but to unfold its beauty, aiming at short growth and intensity of color. Of course, there is an immense difference in the quality of imported bulbs; they vary according to the character of the season. The most successful Dutch growers cannot ensure uniformity in any one variety, year after year, because the seasons are beyond human control. But those who regularly visit Holland can always obtain the finest roots of the year, although it may be necessary to select from many sources.

Such bulbs as Lilies, Iris, Moubretia, Hyacinths, and Alstroemeria, suffer in deterioration after the first year's flowering. Indeed, it will be the cultivator's fault if they do not increase in number and carry finer heads of bloom in succeeding years. As outdoor subjects, some of them are not yet appreciated at their full value. Magnificent as *Lilium auratum* and *L. Lancifolium*, *Album*, and *Rubrum* must ever be in conservatories, they exhibit their imposing proportions to greater advantage and their wealth of perfume is far more acceptable, when grown among handsome shrubs in the border. Very little attention is needed to bring them along year after year, in ever increasing loveliness. I doubt if there are many readers of *The Canadian Horticulturist* who have seen the workings of the bulb industry of Holland. The writer feels at this point that a few remarks would be of great service after having held a position with a noted Holland grower on a two hundred-acre bulb farm, and with four acres of glass for the early production of flowers.

#### CLASSIFICATION OF BULBS

Bulbs are classified as parents, and they are graded as first, second, and third size parents, so that each three year is the lengthy period for the bulb, although each year some acres are lifted. Most of the work is done by the plow, which works very easily on the Holland silt. At most places the silt is only four inches deep, the subsoil being hard cement rock. I have seen some hundreds of acres of land without a stone or a hard piece of earth.

The bulbs are planted with the plow, women and girls being largely employed. The women work about twenty-five feet apart, and as the plow turns over the spit, the women plant the bulbs in the furrow. Then each one waits for the plow to come back again so that she can plant her allotted piece again. When

the planting is completed the fine harrow and roller are used and the surface becomes as flat as a table. This applies to daffodils, narcissus, and tulips. When the bulbs make their appearance, artificial manure is sown broadcast. It is a grand spectacle to see a large staff of girls with their long digging forks, turning the top right over. The Dutchman has a special fork that enables the prongs to go in only a certain distance.

The first year the bulbs are put down, a crop of turnips is often grown, as the importance of the bulbs is not reckoned on until the second year. Lifting is done by means of the plow. They are thrown into nets, taken to the warehouse to be weighed, and after being dried are hand-picked by women into three sizes.

Space does not permit me to dwell upon so lengthy a subject. I should like to mention that it may surprise the reader as to the time it takes to put up these orders for all parts of the globe. The Dutchmen have a stock size board. The same weight of the same size of bulbs will contain the same number of bulbs. The weights are put to the particular size and the order is executed by weight. For instance, at any bank in England, if one wants twenty pounds in gold, it is weighed and the count is correct.

Another question may arise, what do they do with their flowers? In the early part of the year, when narcissi and daffodils are scarce on second size stock, women go with carts and crop all the buds. It is an amazing sight to see five or six cartloads of buds coming across the fields to be stood in vases of warm water and placed in a temperature of 85 degrees with steam, to burst open for markets on the Continent.

A word as to the greenhouse department on one of these bulb farms. The commercial line is one of the greatest importance. Unless one can see the workings of that enterprise, these few rambling remarks will prove but a poor description. When I say that I have had sixteen women, with men and boy helpers, for six weeks boxing, the extent of the industry may be realized. At times three thousand boxes, three feet by two feet and three inches deep, are laid out and covered with ashes.

When forcing bulbs in Holland, record is kept of the time at which the bulbs go in the houses, also the temperature of each house, three times a day, together with the outside temperature, velocity of the wind, and weather forecast. This procedure is essential during the flow ring period, as the strength of the bulb is kept up to a pitch. Tulips are forced in Holland simply by placing the boxes on benches covered with straw.

The industry is a profession by itself

--one that needs careful study. On the farm where the writer was, some two hundred hands were employed. Everything was kept scrupulously clean. Cleanliness is their motto. The greenhouse walls, pipes, and four acres of glass were washed by girls and men. To go around at the night time through twelve large houses, each full of bulbs, with thermometers at both ends and the middle and to record all temperatures and weather conditions is by no means an easy task during the bulb season.

#### Roses from Cuttings

With proper greenhouse conditions, roses can be propagated from cuttings at almost any season of the year, although the summer months are not preferred. To get good results from cuttings of any kind bottom heat is usually necessary. At the same time the air temperature must be comparatively cool. A temperature of sixty-five to seventy degrees for the former and fifty to fifty-five degrees for the latter gives the best results.

Florists propagate most of their rose cuttings during the winter months. During that time the greenhouse temperature is not too high and bottom heat can be applied to the cutting bed by a steam heating system. If the greenhouse temperature becomes too high, the buds start out before the cuttings are properly rooted and failure results.

In the case of roses that are grown out of doors, cuttings four or five inches long and of the new wood are cut in the late fall when the plant has become fully dormant. These may either be buried in sand for several weeks until the ends become caloused, or they may be placed directly in the cutting bed. Sand, three inches deep, and firmly packed, makes the best bed. The cuttings are placed in the sand with only one bud above the surface. Bottom heat is applied and the bed kept well watered. In from two to three weeks roots half an inch to an inch long will be formed and the cuttings are removed to three-inch flower pots. When the plants become too large for the small pots they are transplanted to more suitable quarters.

Cuttings from roses that grow in the greenhouse during the winter are handled in much the same way. Sometimes one leaf is left on and other times the leaves are removed. For the amateur, who grows roses entirely out of doors, the best method is to take the cuttings of the new wood in the early spring while the plant is still dormant. These may then be started in an ordinary hot bed, the bottom heat being obtained by the use of horse manure. Sand is the best surface material. The bed must be kept well watered and on warm days the sash should be slightly raised to prevent the temperature from becoming too high. When the cuttings are properly rooted they can then be potted.

# How to Utilize the Small Greenhouse

By Henry Gibson, Staatsburg

THESE are a number of crops that are easily within the reach of the amateur who has at his disposal a glass structure, such as was described in the pages of the August number of *The Canadian Horticulturist*. Many are apt to feel that something more elaborate than the simple structures described therein is required to produce the handsome flowers and beautiful ferns that one sees in the florists' windows. True, many things are beyond achievement, as in such a place one cannot have long-stemmed American beauties nor the most delicate orchids to present one's friends with at Christmas, but he can very easily have carnations, more beautiful because they will be fresh, if not quite so large as those you get from the florists. You may also have cyclamen, as beautiful and much more serviceable than the best orchid that ever graced a table.

To accomplish such results requires not so much elaborate equipment as unremitting care and attention, not eternal "fussing," but consistent thinking.

There is, perhaps, no more well-beloved flower than the carnation, which entirely deserves the place it has won in the flower-lover's heart. It is equal, if not ahead, of the rose. As a plant it will stand a good deal of abuse, and yet under the care that an amateur can give it will produce an abundance of fine blooms.

To be grown at its best, the carnation should have rather cool treatment, and plenty of ventilation, two factors which place it within the reach of even the smallest greenhouse operator. A night temperature of fifty degrees Fahrenheit should be maintained, with a rise of from fifteen to twenty degrees on bright, sunny days. Avoid cold draughts when ventilating, and on dull days keep the temperature round fifty-eight to sixty degrees.

If you have room for only a few dozen plants, grow them in pots. Probably the local florist has a few left over that he potted up when he had finished planting his benches. Get a few of these, put them into six inch pots, using a good rich soil, say four parts of soil to one of well-decayed barnyard manure. When the pots get full of roots, give them frequent applications of liquid manure. Don't let them starve, but don't overfeed them, and you will be rewarded with a surprising number of blooms from even a single dozen.

If, however, a part of a bench can be allotted them, the results will be more satisfactory, besides entailing a good deal less work by way of attention.

The bench should be well drained and contain about five inches of soil such as

that recommended for pot culture.

For early blooming the plants should be put in early in August, the earlier the better; but for one's own use later planting will do. Select a cloudy day for planting, and be very careful not to plant too deep, as stem rot is almost sure to develop as a result of this very common error. Water thoroughly, and keep them shaded for a few days, with frequent syringings every day until they become established, when they should have full sun and an exposure. Watering should only be done, and done thoroughly, when the soil begins to dry out. Practise syringing regularly on bright days, but never on dull ones, and always have the foliage dry overnight.

## TRAINING THE CARNATION

As the flower stems grow up, some support will be needed. If you can get one of the many forms of wire supports used by commercial florists, so much the better; but should you not have these on hand, the old method of stake and raffia will do very well.

To get the best and largest flowers, the flower stems must be "disbudded"—that is, all but the end or terminal bud must be pinched off, thus throwing all the strength into the one large flower. If on the other hand the terminal bud is taken off and several of the side buds allowed to develop, the result will be a beautiful cluster of blooms, more pleasing to many than the single large

flowers. There are any number of wonderfully good varieties of carnations to choose from, but the white, pink, and light pink *Enchantress*, with a good standard red, should meet the requirements of the average amateur.

## VIOLETS

Requiring less heat than the carnation is the old-time favorite, the violet. The essential thing is to get good plants. As with the carnation, if only a few are required, they can be grown in pots, using the six-inch size. The soil, whether for pots or benches, should be slightly heavier than that used for carnations, about one-fifth well-rotted manure to the soil used. If you can use a bench for them, select one as near the glass as possible, and set the plants about fifteen inches apart if they are field-grown stock and of good size. Water well and keep the house moist and shaded for a few days as you did with the carnations.

## GIVE PLENTY OF LIGHT

Violets outdoors grow luxuriantly in deep shade, but to be successful in a greenhouse during the winter months, it is necessary to allow them all the light possible. Keep all the dead leaves picked off, also any useless runners. Syringe on all bright mornings to keep down red spider. The night temperature will be better at forty-five degrees than anything above, with a rise of very little above fifteen degrees during the daytime.



Inside View New Horticultural Pavilion, Allen Gardens, Toronto

# Two Common Wilts of Vegetables

B. Blanchard, O. A. C., Guelph, Ont.

**T**WO diseases which often cause considerable loss to the gardener are the wilt (sometimes called black rot) of cabbages and other members of cruciferae family, such as cauliflower, kale, brussels sprouts, and the wilts attacking the cucurbits, as instanced in cucumbers, pumpkins, melons and squash. Both of these diseases are caused by bacterial organisms and in most respects are somewhat similar.

In cabbages, the characteristic symptom of the disease is a yellowing of a portion of the leaf. The most common point of entrance for the bacteria is through the water pores at the edge of the leaf, especially through the drops of water which may be seen on the edge of the leaf in the early morning. From these pores the bacteria make their way through the veins, the mid ribs and the stalk, feeding on the plant juices. The tiny tubes which carry these plant juices are technically known as the vascular bundles.

## ACTION OF THE DISEASE

From the vascular bundles the spread of the disease is comparatively slow. The yellowing of the leaves is not caused so much by the presence of the bacteria in the tissues as by the stoppage of the supply of nourishment. It sometimes happens that the leaves become yellowish because of drought. To determine the exact cause of the wilting, if the stem or mid rib of the leaf is cut across just below the yellow portion, the vascular bundles are found to be blackened, appearing as black spots on the cross section, then the disease may be safely said to be caused by the bacteria. A few trials will make even a novice expert in detecting the cause of the trouble.

The blackening of the leaves, from which comes the name "black rot," is not caused by the bacteria but by a fungus which attacks the plant after it has been weakened by the bacteria.

From plant to plant the disease is most commonly spread by caterpillars and other biting insects; also by the cultivator. The bacteria have been known to live in seed from an infected field for eight or nine months. Infection also takes place by handling diseased plants and then healthy ones. To this end the seed may be soaked for fifteen minutes in a one to one thousand solution of corrosive sublimate, a five per cent. solution of formalin or a five per cent. solution of carbolic acid. After handling diseased plants the hands and implements used should be washed in one of these solutions. Young plants showing any signs of the disease should not be planted. All diseased plants should be gathered and burned. Keep insects under control.

Cucumbers grown in the greenhouse

the most susceptible of the cucurbit family to attacks. A whole greenhouse crop will sometimes be destroyed in two or three weeks. The organisms enter the vascular system of the leaves in the same manner as in the cabbage, but the disease spreads much more rapidly through the leaf which becomes dry, dull in color and droops. The presence of the disease can be determined by making a

cross section of the leaf stem or stalk and scraping the end of the stalk. If the plant is infected the plant juices will be found to be slimy and stringy, instead of watery.

The most common means of infection is by the cucumber beetle. These insects therefore should be kept in check. Other control measures are similar to those mentioned for cabbage.

## How to Judge Potatoes

By Prof. F. M. Straight, B. S. A.

**M**OST of us farmers think that we know a good potato when we see it, and we do; but not every one of us can pick out prize winners at one of our exhibitions. In judging potatoes, fancy points are hardly considered. They are examined from the standpoint of utility. Quality and economy are the points kept to the fore. Potatoes excelling in these, win. Some external points, apparently unimportant, are emphasized only because they are indications of the interior quality or economy when prepared for the table.

## SIZE AND SHAPE

Under the heading of external appearance we consider the size. Very large potatoes are as undesirable as very small. Both are classified as unmarketable. Very large potatoes must be cut when prepared for cooking. Even then they do not cook evenly and never present a pleasing appearance. Potatoes ranging from eight to ten ounces in weight are right in size.

Markets demand potatoes slightly oblong in shape, but not drawn out as the black kidney, once so popular. Again there is a reason for this. The percentage of weight is much less with potatoes of this shape than with others. Potatoes with recessed ends with knobs or protuberances, and irregular in shape, are annoying to the housewife, and far from economical when prepared for the table.

## UNIFORMITY THE MAIN FEATURE

Every judge considers uniformity. A plate of potatoes pleases no one if not uniform. The same is true of a barrel. A barrel of potatoes containing ten per cent "away off" in shape and size will throw discredit on the whole package.

In truth color amounts to nothing. A red potato is as good as a white one, and a black one as either. The demand on the various markets changes with the years. On most markets white potatoes take the lead at present, but not because they are really superior. The best farmers have learned that it never pays to quarrel with a customer. They produce and sell what the market demands. They agree with the voice of the market even

when its demands are not backed by reason.

## EVIDENCES OF QUALITY

Netting of the skin is one of the minor external points which speaks of quality within. By netting of the skin we mean that russeted appearance, caused by the rupturing of the outer skin in two or more directions. When skin is smooth and more or less transparent, the potato is usually deficient in starch. It is soggy. The amount of netting varies with varieties, but with a given variety the more russeting the better the quality.

From the standpoint of the household-er, if potatoes had no eyes so much the better. That being impossible, selection is made from tubers having a comparatively small number. For any purpose, even that of the seedsmen, a sufficient number of eyes is always present. The eyes are a nuisance. It is difficult to breed deep eyes out of some varieties; but when best potatoes of any variety are on exhibition, deep eyed specimens are never among the prize winners.

Freedom from blemish and disease scarcely requires discussion. A potato partially peeled is blemished, as it also is if marred with the fork in digging. Scabs and rots disqualify; a scabby potato can never win, or should never win, if it is the only specimen displayed. The internal appearance counts practically for the same as the external. We put the premium on white potatoes, without red or blue streaks. A faint suspicion of blue or yellow when freshly cut is objectionable.

## TEXTURE

"Breaking as short as a pipe stem," is an apt phrase when applied to texture in the best potatoes. Sponginess and coarseness are never associated with good quality. If a very thin section is cut across a potato and held to the light, it will be readily seen that the section readily divides itself into three parts, these are the cortical layer next the skin, an external and an internal medullary area. Each one of these layers is unlike the other in texture, owing to the fact that different percentages of starch are found present in each as here shown:

	Starch per cent.	Protein per cent.	Water per cent.
Cortical Layer . . .	19.42	1.99	74.79
External			
Medullary Area . . .	16.29	2.14	77.44
Internal			
Medullary Area . . .	11.70	2.31	82.16

These figures represent the average percentages found, but potatoes vary much.

#### INTERNATIONAL STANDARDS

On starchiness, quality in America chiefly depends. In Europe, what Canadians would call a sticky, soggy potato, is prized; but in America mealiness is sought and obtained. Mealiness is dependent upon the percentage of starch. It follows that mealiness, starchiness and quality are intimately associated.

When a potato is cut the starch dries on the cut surface. From the amount found there, a fair estimate of the starchiness of the specimen may be obtained. For very exact work sections are stained with iodine and placed under the microscope. Each starch grain so stained becomes a deep blue color.

It will be noted by referring to the table that the cortical layer (that is the part next to the skin) is the richest in starch. The other areas are slightly richer in protein, but the digestible protein in these areas is not greater than that found

in the cortical. The cortical layer is most prized because of the food (starch) found there. This layer varies in thickness. Other things being equal a potato with a thick cortical layer wins. From this it becomes apparent why smooth potatoes with few eyes are most prized. In peeling rough specimens the most of the cortical layer is cut away with the consequent loss of the most nutritive portion.

All vegetable tissue is composed of cells. These cells are boxes with wooden walls. The box contains a large amount

of water and other substances. One of the principal of these, in the potato, is starch. When starch comes in contact with heat it expands wonderfully. If these starch grains are numerous enough the expansion is so great that the cell wall is ruptured, producing that mealiness so much desired. In some cases the starch is so much greater on the outside that it becomes mealy and "cooks away," while the interior remains hard. This happens only when the cortical layer is very thin and not ideally blended with the deeper seated layers.

## Advertising Vegetables

W. H. Munday, London, Ont.

Why don't we advertise our vegetables? The product is fresh from the workshop of nature. It is pure, undiluted, unexcelled, and capable of keeping the system in tone. Doctors tell us that asparagus is good for the kidneys, tomatoes are stimulating for the liver, onions for the stomach, spinach for the blood, and so on. Well, why not advertise our vegetables when they have such recommendations?

#### CHANGE THE DIET FASHION

There are thousands of people in Canada who fare on meat, and pie and cake,

who never realize what health-giving properties are contained in fresh vegetables. Properly cooked they digest easily, and are assimilated rapidly. Plenty of vegetables means pure blood, good appetite, freedom from disease and long life. These thousands of people must be told. If necessary these facts should be constantly held up before their eyes through advertising. Our business as growers of vegetables makes this a matter of duty. Let us not only advertise our product, but let us grow a better article and more of it. By all means let the people know

about it. There is a secret in growing good vegetables; there is also a secret in selling them. Notice how the Californians advertise their raisins, oranges, and celery.

Don't you think that if our apples were advertised they would sell better? Good advertising starts a fashion. If there is a fashion in dress, there is also one in diet. Start a fashion in eating vegetables and fruit, and it will mean larger sales if not higher prices.

We are told to put up our products in neat, clean and attractive packages. That is all right, but it is not sufficient. We must impress the public with the fact that we have the goods.



Ginseng Beds of Dr. MacKendrick, Galt, Ont.

Dr. MacKendrick commenced growing ginseng a few years ago. "By raising your own seed and planting them," says Dr. MacKendrick, "each three-year-old plant will give about fifty, a four-year-old seventy-five and a five-year-old about one hundred seeds."

The Canadian Horticulturist
COMBINED WITH
THE CANADIAN HORTICULTURIST
AND BEEKEEPER

With which has been incorporated
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Published by The Horticultural
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PETERBORO, ONTARIO

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New York Office—236 5th Avenue.

1. The Canadian Horticulturist is published in
two editions on the 25th day of the month
preceding date of issue. The first edition is known
as The Canadian Horticulturist. It is devoted
exclusively to the horticultural interests of
Canada. The second edition is known as The
Canadian Horticulturist and Beekeeper. In this
edition several pages of matter appearing in the
first issue are replaced by an equal number of
pages of matter relating to the bee-keeping in-
terests of Canada.

2. Subscription price of The Canadian Horti-
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6. Advertising rates, \$1.40 an inch. Copy re-
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CIRCULATION STATEMENT

The following is a sworn statement of the net
paid circulation of The Canadian Horticulturist
for the year ending with December, 1912. The
figures given are exclusive of samples and spoiled
copies. Most months, including the sample cop-
ies, from 13,000 to 15,000 copies of The Canadian
Horticulturist are mailed to people known to
be interested in the growing of fruits, flowers
or vegetables.

Table with 3 columns: Month, 1912, Circulation, and 1911. Rows include January, February, March, April, May, June, July, August, September, October, November, December, and October 1913.

Table with 3 columns: Year, Average each issue, and Total. Rows include 1907, 1908, 1909, 1910, 1911, 1912, and October 1913.

Sworn detailed statements will be mailed
upon application.

OUR GUARANTEE

We guarantee that every advertiser in this issue
is reliable. We are able to do this because the
advertising columns of The Canadian Horticulturist
are as carefully edited as the reading
columns, and because to protect our readers we
turn away all unscrupulous advertisers. Should
any advertiser herein deal dishonestly with any
subscriber, we will make good the amount of
his loss, provided such transaction occurs with-
in one month from date of this issue, that it is
reported to us within a week of its occurrence,
and that we find the facts to be as stated. It
is a condition of this contract that in writing to
advertisers you state, "I saw your advertise-
ment in The Canadian Horticulturist."

Rogues shall not ply their trade at the expense
of our subscribers who are our friends, through
the medium of these columns; but we shall not
attempt to adjust trifling disputes between sub-
scribers and honourable businessmen who ad-
vertise, nor pay the debts of honest bankrupts.

Communications should be addressed
THE CANADIAN HORTICULTURIST,
PETERBORO.

EDITORIAL

PROTECTION OF SHADE TREES

"The Province of Ontario sets a good ex-
ample in legislation for the protection of
shade and street trees to the rest of the Do-
minion. Under the Tree Planting Act of
the province trees planted or left standing
on the public highways (and also on toll
roads) become the property of the owner of
the land adjacent to the highway and near-
est to such trees. Thus any company or in-
dividual destroying or damaging in any way
(even tying a horse to) such trees without
the owner's consent, is liable to a fine not
to exceed twenty-five dollars and costs, or
imprisonment for not more than thirty days
half of the fine to go to the informant. Tele-
phone companies, who, in the stringing of
wires, very often seriously injure and muni-
late shade trees are apt to justify them-
selves to the property owners by asserting
their legal right to do such 'pruning' be-
cause of established precedent. In this case
no such practice however long it has been
tolerated by property holders, becomes leg-
ally justifiable. However long a wire may
have been attached to a tree, the owner if
he has property in the tree, can compel its
removal.

"While even the owner may not re-
move shade trees on highways without the
consent of the municipal council, yet on
the other hand, not even the municipal
council may remove any live trees without
the consent of the owner of the property
in front of which the tree stands, unless
such tree is within thirty feet of other
trees, and even then the owner must be
given at least two days' notice and can
demand compensation if he has planted
and protected such tree or trees.

"The property owner who is aware of
his rights in these respects will take great-
er interest in and greater care of the trees
bordering the highway opposite his prop-
erty. He will also have more incentive to
plant shade trees."

The foregoing is an extract from a bul-
letin issued by the Dominion Forestry
Division. It proves that we are making
progress in our journey towards the beau-
tification of our roadsides. It is evident,
however, that such a by-law is only a pre-
ventive measure, a measure which owing to
the lack of trees on many of our highways,
will never effect a complete remedy.

We hope the day is not far distant when
steps will be taken by municipal bodies to
encourage the planting of trees, to im-
prove the aspect of our highways and by-
ways, thereby broadening our aesthetic
taste.

APPLES FOR QUEBEC

Though many of the best varieties of
apples grown in Ontario will also grow in
Quebec, experience, as evidenced by old
plantings, teaches us that Quebec is not
suited to the rearing of Northern Spies,
Blenheims and such like.

The French-Canadian province is learn-
ing another lesson, a lesson which does not
alone apply to her, that the planting of
too many varieties is not profitable from a
commercial standpoint.

It is now generally admitted that the
McIntosh Red, Fameuse, Wealthy, and Mil-
waukee are among the most suitable for
the province. No large exporting or ship-

ping business can be successfully accom-
plished until the community agrees to go in
for a few of the best varieties. The for-
mation of cooperative societies, in the
pomological districts, which would give spe-
cial attention to this phase of the business,
would go a long way towards concentrat-
ing the choice of varieties on these com-
mercial types already mentioned.

THE UNITED STATES TARIFF

The new United States tariff, as it re-
lates to fruit and vegetables, is bound to
have an important influence on the fruit
and vegetable growing interests of Canada,
particularly in Ontario and the east. The
southern counties of Ontario are particu-
larly well adapted for the growing of many
tender varieties of fruit, as well as early
vegetables. These products, hitherto, have
been shut off from the United States mar-
kets by the high tariff wall that has pre-
vailed. It will take some years before our
growers will ascertain what the new United
States market will mean to them. Ulti-
mately a great increase may be expected
in our trade with the chief cities of the
northern and eastern States. In seasons
of scarcity across the border hundreds of
thousands of barrels of eastern apples will
cross the border with advantage to our
growers.

It is altogether likely before long that
Canadian consumers will agitate for a re-
duction in the Canadian tariff. It will be
time enough to deal with this situation
when it arises. In the meantime our
growers should profit materially by exist-
ing conditions.

BROWN ROT OF PEACHES

During the ripening season many peach
growers may have found that their fruit
instead of ripening became brown. On
closer examination, these brown fruits will
be found to be decayed underneath the skin.
This is a very serious disease of peaches,
and these fruits, though they do not all fall
from the tree in winter, should be re-
moved and carefully destroyed.

The reason for this is that the fruit is
responsible for carrying the disease over to
next year's crop, and if left to remain in
the tree may even affect the twigs and
branches to the detriment of their vitality.
Infected fruits which are found on the
ground should not be allowed to remain
there, as the wind is capable of carrying
the spores of the disease to the next year's
crop. This infection can only be prevented
by the absolute destruction of all diseased
fruit in the fall.

It is only natural to expect that with
the decided shortage in the world's fruit
crop, prices will be higher. The Ontario
crop will not be over half of a full yield.
In Nova Scotia early varieties are excep-
tionally light, while late kinds will only
be a fair crop. The average for the whole
Dominion is estimated at only forty-eight
per cent. of a full crop. The United States
crop is estimated at fifty per cent. of last
year's. Nova Scotia growers are expect-
ing extra good prices for the few Graven-
steins that will this year be shipped. They
also expect the later varieties to be in
good demand. English orchards recent-
ly sold have commanded unprecedented
prices. If proper marketing methods are
followed there is no reason why Canadian
apple producers should not receive remuner-
ative prices.



The fact that the Ontario Horticultural Exhibition this year will be held in conjunction with the National Dairy, Live Stock and Poultry Show, should lead to a great increase in the attendance. It is probable that the Ontario Horticultural Exhibition under the new arrangement, will lose a good deal of its identity. This is to be regretted. The object of the exhibition, however, is to accomplish the greatest good for the greatest number. If the new arrangement enables this to be done no valid objection can be taken to it. It deserves to receive a fair and sympathetic trial.

## PUBLISHER'S DESK

The front cover illustration on this issue of *The Canadian Horticulturist* shows a St. Thomas school, which won first prize in the competition conducted by the St. Thomas Horticultural Society, among the schools of the City for the most attractive floral arrangement. Does it not set an excellent example for hundreds of other town and city schools?

The December issue of *The Canadian Horticulturist* will be to some extent a Special Christmas Number. An unusually attractive cover design has been prepared for that issue. It will be printed in colors. In addition the fruit, flower and vegetable departments will contain extracts from the most interesting papers read at the conventions which will be held in Toronto this month in connection with the Ontario Horticultural Exhibition by The Ontario Fruit Growers' Association, Ontario Horticultural Association, and the Ontario Vegetable Growers' Association. As these papers will be prepared by a number of Canada's leading authorities on the subjects which will be dealt with, our December issue will be an unusually instructive and helpful one. In addition, full reports of the exhibits of fruit, flowers and vegetables will be published. Watch for our December number.

## Ontario Horticultural Exhibition

The Ontario Horticultural Association is holding its annual exhibition this year in conjunction with the National Live Stock, Horticultural and Dairy Show, which opens at Exhibition Park on November 17. Under the influence of this new and larger organization it is expected that the fruit, flower and vegetable departments will receive an added impulse and support in maintaining their fall shows.

The importance of this year's event is emphasized by the scope taken by the new organization. The name "National" is intended to have far-reaching significance. The need of a national show has been a growing necessity the last few years, and the cooperation of the various branches of the great agricultural industry will make for its immediate and permanent success.

Entries in the fruit, flower and vegetable sections will not close until November 10, and from communications so far received an unusually large number of exhibitors will be represented.

The show occurs at the same time as the annual convention of the Women's Institutes of the province, and this event in itself will make for added interest.

In the poultry department a competition has been established for dressed fowl, and a demonstration of egg handling with appropriate lectures will also be a feature.

## SOCIETY NOTES

We invite the officers of Horticultural Societies to send in short, pithy reports of work that would interest members of other Horticultural Societies.

## School Competitions

Many horticultural societies in Ontario have obtained excellent results through the holding of school competitions. One of the most successful societies in the province is located in Galt. The Galt Society has held this contest. Eight prizes are offered to each school separately, the prizes being as follows: \$2.00, \$1.75, \$1.50, \$1.25, \$1.00, 75c, 50c, 25c.

The rules of the Galt Society are as follow:

Section 1 (a)—That all competitors be required to plant and cultivate a plot of ground equal to one hundred square feet, preferably ten by ten.

Section 1 (b)—That the Galt Horticultural Society provide them with two kinds of flower seeds and two kinds of vegetable seeds, to be grown by them in rows.

Section 1 (c)—That each competitor is required to exhibit two or more of his or her products at the Society's show, to be held on August 28th and 29th next, when each will have another chance of a prize in section three.

Section 1 (d)—That competition be confined to scholars in 3rd and 4th books.

Section 2—Any scholar not competing in Section 1 may obtain from the Society either two packages of flower seeds or two packages of vegetable seeds, to be sown and tended to by themselves, and some of their products must be exhibited at the Horticultural Show in competitions for prizes.

Section 3—A first and second prize, 75c and 50c, will be given to each school for the two best vases of Asters exhibited. Prizes donated by the President.

Section 4—A first and second prize, 75c and 50c, will be given to each school for the best two vases of Nasturtiums exhibited.

## St. Thomas

The season of 1913 has proved the most successful in the history of the St. Thomas Horticultural Society. On September 6, the two big windows of the Baldwin Robinson's Co.'s store on Talbot Street were

filled with a beautiful display of flowers. Some magnificent asters were shown by Joseph Howard, and Mrs. D. Caughell, North Yarmouth, had some beautiful dahlias. In addition, there were a number of vegetable entries, and the cup, medals, and prizes donated by city merchants were also exhibited.

In the Lawn and Garden competition, there were one hundred and fifty entries. The quantity and quality was far ahead of last year's standing. W. R. Rewbotham, J. H. Still, F. E. Bennett, W. H. Jagoe, and Dr. Guest were the heavy prize winners in the home lawn classes. For floral beautification of the home, first honors went to W. R. Rewbotham and J. H. Still. Col. E. H. Caughell won the silver medal for the best perennial garden. W. R. Rewbotham was first on best rose garden. Balaclava Street School again won the first prize for the best kept school lawn. The best vegetable gardens were those of Jas. Graham and Alfred Walker. Pere Marquette railway shops had the best kept factory lawns, and the Merchants' Bank the finest looking business place.

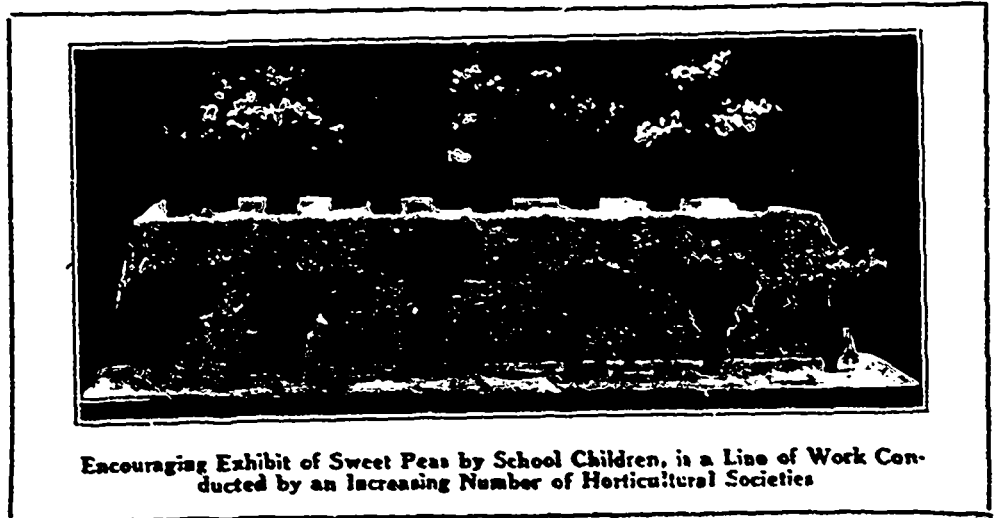
The St. Thomas Horticultural Society has issued its list of options for 1913-14. In a brief introduction the officers point out that during the past season the society more than doubled its membership, planted fifty-two public flower beds, held four flower shows, and paid over three hundred dollars in prizes for competitions. They assert that a membership of two thousand is not an unreasonable wish for 1914. In all some sixteen excellent options are offered.

## Perth

The school children were a live factor at an exhibition held recently by the Perth Society. Over forty children made entries in sweet peas and asters. The St. Catharines Horticultural Society sent an exhibition of prize gladioli which had been grown by W. B. Burgoyne, Mr. and Mrs. J. A. Abbs, Mr. and Mrs. W. H. Nicholson, and Mr. C. A. Hesson. There were also some choice prize grapes and peaches from W. H. Bunting, W. J. Furminger and C. and A. Blungell, of that city.

Music was furnished, including selections by a male choir and home made candies and cut flowers were offered for sale. The society is now planning for the holding of an even better exhibition next year.

If we could get everybody in the Dominion educated to our standard box, I do not see any reason for adopting the Oregon box.—Jas. Gibb, British Columbia.



## The New United States Tariff and the Canadian Fruit Industry

**W**HAT effect will the new United States tariff on fruit have on the Canadian fruit industry? This is a difficult question to answer. The production of fruit both in Canada and the United States varies so greatly year by year and also by districts there is certain to be an almost equally great variation in the effect of the new tariff. On the whole, it cannot help but be beneficial. In years of heavy production in Canada it will mean hundreds of thousands of dollars a year to our fruit growers.

The fruit growers of British Columbia will benefit the least. The great fruit producing states of the Pacific Coast more than supply their local demands with the result that there is not likely to be much of an opening for British Columbia fruit in the adjoining states. At times fruit from British Columbia will cross the border, especially into the north-western states, and be sold in some of the large cities of the middle west.

### THE EAST WILL BENEFIT

Ontario will benefit to a marked extent. Had the change in the tariff taken place six weeks earlier it would have meant many thousands of dollars to the peach growers of Ontario. Each year large quantities of Ontario fruit will find a market in the states. The Niagara District will benefit especially as will also the counties bordering along Lake Erie, and the St. Clair River.

Nova Scotia should find a market for considerable of its fruit in the New England and Atlantic Coast States, particularly in seasons of scarcity on the other side. The short haul will effect a great saving in the marketing of this fruit.

### THIS YEAR'S SALES

The change in the tariff came into effect too late this year to be of much benefit to Canadian growers. Practically all of the Ontario apples, and the same is largely true of Nova Scotia's crop, had been sold by the first of October to go either to the west or to Europe. The crop of apples being short both in the United States and in Canada, sales were made early at good figures.

### GROWERS' OPINIONS

Desiring to ascertain how leading growers and commission men looked on the situation, The Canadian Horticulturist wrote to a number of them. Among the replies received were the following:

Robert Thompson, Manager, St. Catharines Cold Storage and Forwarding Co.:—"In seasons of scarcity of fruit and vegetables in the states, there will be a greater demand for produce from Canada, should we happen to have a good crop. We will also create a demand for fruit and vegetables that are grown here in greater abundance and to better perfection owing to our late seasons. We will for the present not have to contend with any shipments from across the line owing to the high Canadian tariff. But I can see trouble ahead for the Canadian fruit growers and producers. There will be a demand from the Canadian public for the duties to be lowered or taken off the same lines coming into Canada. The Canadian fruit and vegetable growers will never be satisfied to allow the Canadian Government to take the duty off fruit and vegetables coming into Canada and at the same time continue the high duties on our supplies, such as spray material, pumps, baskets, lino for covering baskets, and everything that they use in connection with

the business. The unfairness of any proposal to take the duties off fruit and vegetables coming into Canada while retaining the high protection on supplies, would mean that our growers would have to pay from twenty-five to thirty-five per cent more than growers in the states.

"I will give you a few instances: The St. Catharines Cold Storage Co. bought this season two hundred thousand Lino covers from the manufacturer on the other side, and paid thirty-five per cent. duty, or exactly one-third of a cent each or six hundred and sixty-six dollars duty more than the grower on the other side of the line is charged. Several hundred thousand baskets had to be purchased, on which a duty of thirty per cent. is levied. On basket fasteners they charge thirty per cent.; on spray pumps from twenty-seven and a half to thirty-five per cent. So you can readily see how we are handicapped.

"When our growers are assured that these duties will be lowered then we will be willing to consider the lowering of the duties on fruits and vegetables. Every one, growers and consumers alike, would be benefited by such a general reduction, but not by such a one-sided reduction as I can see the Canadian consumer is getting ready to demand.

"This season is one permitting the Canadian grower to ship his produce to the other side with profit, but possibly next season we might not be favored with such excellent crops, and the American produce might then come in here in competition. As one of the growers I am in favor of a reduction on all duties but not any one-sided affair in which the grower will get the worst of the bargain."

### SHOULD BE A BENEFIT

J. W. Smith & Son, Winona, Ont.:—"The new tariff regulations of the United States should have a good effect on account of the large markets opened to the grower. It should raise the prices to a certain extent, but if they had made it free entirely it would have been much better. The business that will be done now will be mostly through wholesale houses, and the consumer on the other side will not get the benefit as he should. Had they taken the duty off entirely our producers then would have gone after the retail trade. As it is the tariff will so interfere with business we will have to direct our shipments through wholesale houses and they will look after the tariff. The new arrangement should benefit the majority of fruits, particularly the tender fruits, such as peaches, berries and grapes, especially at the points where there are large cities just across the border."

### WILL HELP FRUIT GROWERS

H. W. Dawson, Brampton, Ont.:—"The new United States tariff will be a benefit to the fruit industry in Canada but it would be much better for the producers if Canada could adjust her tariff so as to take advantage of all the benefits. As I am not so closely in touch with the shipments here as formerly I cannot give you particulars. One of the largest growers of peaches who was a strong opponent of reciprocity in 1911, told me recently that the biggest mistake he ever made was to vote against reciprocity; that if he had had access to the markets of the United States this one season he would have been hundreds of dollars ahead. That, he said, applied to all peach growers in the district. The freer exchange of perishables we can have with

the States the greater will be Canada's benefit."

W. J. Kerr, Ottawa:—"The new United States tariff arrangements on the vegetables of Canada, I do not think will make any great difference to us except in the vicinity of large American cities. At Prescott there may be some trade worked up with Ogdensburg, and at Windsor with Detroit. Canada is not likely to become a vegetable exporting country in the near future. We are buying hundreds of thousands of dollars worth of vegetables from the United States annually. Every large city in Canada buys large quantities from the United States. The Soo, Port Arthur and Fort William import very large quantities. The great truck gardens of the Atlantic coast states, as well as parts of western New York and Ohio, as well as several other parts of the Union, grow enormous quantities of vegetables and will likely continue as in the past, to use Canada as a dumping ground for great quantities of their surplus, so unless Canada removes her tariff walls conditions will likely remain much as they are. Were Canada to remove her restrictions we would in a very few years see the growers on this side practically put out of business by the growers in the more southern country, where two and often three crops a year can be grown in the open ground."

## The Barrel Package--Some Defects to Remedy

D. E. Lethian, B.S.A., Peterboro Co., Ont.

We cannot change the taste of the market in a day. Those experienced in any commercial enterprise, no matter what the nature of it may be, will testify to the correctness of that statement. Though it may ultimately come to pass that we shall change from the barrel to the box package in the shipping of apples, we need not expect that this will occur in a day either. It therefore behoves us to improve as far as is possible meantime the commonly accepted package and to attempt in every way to make perfect the condition of that package.

One common imperfection, a fault which can be easily remedied, is due to the fact that orchardists commonly leave their barrels exposed to weather conditions with the result that the inner side of the staves becomes warped and uneven. This may not necessarily be obvious to one examining only the outside of the barrel. Again many barrels when they are manufactured are set up with staves of uneven thickness with the result that considerable shoulder may be found to project on the inside. It was found last season by some of the fruit inspectors that some of these barrels had a shoulder of three-sixteenths of an inch projecting almost the whole way from the head to the tail of the barrel, with the result that when the barrels were packed and the press applied the whole row of apples extending along this shoulder was pressed against it and sufficiently bruised to make them unfit for human consumption. The erection of a rain shelter and the inspection of the new barrel will correct these defects.

### BETTER QUALITY LABOR

At a time when we hear so much about distributing labor, on the farm, the orchardist may not be made any exception to this requirement. In order to spread his labor over the season, it is advisable to erect a home cooperage building. The whole outfit need not cost more than fifty to seventy-five dollars. Such an outfit will help to provide the laborer with work all the year round.



**ARE YOU GOING**  
To Build  
**GREENHOUSES**  
We Design and Manufacture  
**Iron Frame, Pipe Frame and All Wood**  
We Use Only The Best  
**All Heart Red Gulf Cypress Woodwork**  
We Also Supply  
**Ventilating Machinery, Bench Material and all kinds of Greenhouse Hardware**  
Write to  
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**Beeswax Wanted**  
BEST MARKET PRICE  
CASH OR EXCHANGE  
**THE HAM & NOTT CO., LIMITED**  
BRANTFORD, ONT.

**Fruit Machinery Co.**  
INGERSOLL, ONT.  
Manufacturers of **Sprayers** and a complete line of  
**Apple Evaporating Machinery**  
Installing Power Evaporators a specialty  
**OUR LEADERS**  
**Ontario Power Sprayer**  
Model 2-B, and the  
**Improved Pacific Apple Parer**  
Write for catalogue on *Spraying and Evaporating*

**Record Your Shipments**  
G. E. Mcintosh, Transportation Agent, O.F.G. Association, Forest, Ont.

**T**HE shipping season is now on, and I take this opportunity of again urging fruit growers to keep specific data of all their shipments. A number did this last season, and these records were of great assistance to our Transportation Committee.

The ordering of cars should be done in writing, keeping a duplicate copy, a record of date ordered; on the back of this a record of date supplied, giving car number and initials, destination of each car, when and where shipped, date of arrival, etc.

For all car lots, the shipper should notify the agent when he will start loading and the agent must then give the shipper a clear bill of lading without notation "Shipper's Count". Insist on getting such, otherwise loss by pilfering, etc., returns to shipper L.C.L. The railway company must load.

There is no additional charge for heaters supplied for carload traffic. The proper heating equipment for each car is four heaters.

**MAN IN CHARGE**

The privilege is granted of sending a man in charge of heated refrigerator cars, free, and the railway company will allow him a return at the rate of one and one-half cents a mile.

In transit the local agent should supply gratis a report of car shipments passing divisional points.

Refrigerator cars or box cars when refrigerators cannot be supplied should have slatted floors, but when shippers have to

**Douglas Gardens**  
OAKVILLE, ONT.

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Belated Orders for

**Pæonies**  
**Irises**  
**Delphiniums**  
**Heleniums**  
**Phloxes**  
**Aquilegias**  
Etc., Etc., Etc.

Will be filled promptly and planting may still be done successfully.

☛ Fall Planting List sent Free on request

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**JOHN CAVERS**

**Apple Shippers**  
Read this before disposing of your Apples



**IT'S ONLY NATURAL** to give your own property **THE PREFERENCE** — Blood is thicker than water.

Having no bought apples of our own, we are in a position to look after your interests. Consign your apples to us—we can take care of them for you.

Have ample storage to hold for improved market.

**Dawson-Elliott Co.**  
32 West Market St., TORONTO  
PHONE MAIN 1471

**Greenhouse Glass**

We manufacture a special line for greenhouses. It is of good quality, flat, squarely cut and even thickness, virtues which cannot be dispensed with for lapping or butting.

Shall be pleased to quote prices on application to any of our Canadian depots:

<b>MONTREAL</b> Basy Lane	<b>TORONTO</b> Mercer St.	<b>WINNIPEG</b> Market St.	<b>VANCOUVER</b> Powell St.
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**Pilkington Bros., Limited**  
Works at St. Helens, Eng.

# FAVOURITE FLOWERS From the BEAUTIFUL OLD-FASHIONED GARDENS of ENGLAND

**K**ELWAY'S famous Hardy Herbaceous Plants are modern developments of the old English favourites. The cottage "Piny Rose" has become the Pæony, incomparable in form, colour and fragrance. The old-fashioned Larkspur has developed into the stately blooms of the Delphiniums; Gaillardias, Pyrethrums and the rest, all serve to bring back the charm of the old-world English garden. Special care is taken in packing plants to arrive in Canada in good order, and they can be relied upon to thrive with a minimum of attention.

Full particulars and illustrations given in the Kelway Manual of Horticulture mailed free on receipt of 60c by

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England

Send - now - for a copy  
of the Kelway Book -  
and make your Garden  
glorious



furnish such, the railway company must allow him three dollars for each car.

**LAKE AND RAIL SHIPMENTS**

Regarding the handling of apples from Eastern Canada to points in Ontario, Manitoba, Saskatchewan, and Alberta, the rail way companies claim they cannot furnish refrigerator cars to take care of all carloads delivered at their Lake Superior terminals. They will not assume responsibility for damage by frost after October fifteenth. Refrigerator cars, supplied with heaters, will be furnished as far as possible. When box cars are used, the shipper will be permitted to line and place stoves or other means of heating in them and the rail way companies will furnish free transport in both ways for attendants accompanying such for looking after the heating. This privilege, however, does not apply on all rail shipments, but we are endeavoring to have it apply on such when refrigerators cannot be supplied. If granted, growers will be advised.

**CHANGING DESTINATION**

Agents when requested, will undertake to change in transit the destination of carload traffic from one place to another, charging three dollars for each change, plus the difference which may exist between the rate billed and the rate from shipping point to ultimate destination. If out of the direct run an additional charge per ton per mile (minimum twenty miles) will be made for such extra haul.

Our Transportation Committee has neither the power nor the desire to make any binding upon fruit shippers to keep records and to send them to me, but the effort to improve conditions is in your interest, therefore I confidently expect your cooperation.

**San Jose Scale in Nova Scotia**

The Nova Scotia Department of Agriculture is leaving no stone unturned in the effort to stamp out San Jose scale, which has made its appearance in the province. This pest was first discovered in the Annapolis Valley in the spring of 1912 by G. E. Saunders, who was then in charge of the Brown Tail Moth inspection work. The scale was found on trees that had been planted at Aylesford the previous year.

Steps were immediately taken to ascertain the extent of the infection. It was found that the pest had been introduced in many localities. Inspectors were immediately sent out with authority to destroy all infested trees. During the year one hundred and fifty thousand trees were inspected on over seventeen hundred properties, and seven hundred and twenty-three trees were destroyed.

This season the inspection work was continued and it is hoped that all infested stock was located. Legislation has been enacted making it imperative that all infested stock be either destroyed or shipped out of the country. All nursery stock coming into the province must bear a certificate of inspection, stating that the nursery in which the crop was grown had been inspected the previous year and found free of all injurious pests and diseases. All such stock must be shipped by Digby or Fruit where it is inspected and fumigated.

Concentrated lime sulphur, applied before the buds open in the spring, is the best known remedy. Concentrated kerosene emulsion is also effective on dormant trees and a diluted solution can be applied to the trees when the lice hatch during the summer. The females do not lay eggs, the young being produced alive. It is estimated that each female will produce one hundred living young in a single season.

# The Call of the North

DO you know of the many advantages that New Ontario, with its millions of fertile acres, offers to the prospective settler? Do you know that these rich agricultural lands, obtainable free, and at a nominal cost, are already producing grain and vegetables second to none in the world?

For literature descriptive of this great territory, and for information as to terms, homestead regulations, settlers' rates, etc., write to

**H. A. MACDONELL**

Director of Colonization

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## Sprayers

## Sulfur Dusters

For Fighting Every Disease of Cultivated Plants

Knapsack, Pack Saddle or Horse Drawn Power Sprayers

Send for Catalogues and particulars to: **VERMOREL** Manufacturer, VILLEFRANCHE (Rhone), FRANCE

# UNSURPASSED COLD STORAGE

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## APPLES IN BARRELS OR BOXES

Fruit unloaded direct from cars shipped via any railroad. Handled exactly the same as our own supply. Rates Reasonable.

FRUIT DEPARTMENT

**THE WILLIAM DAVIES CO. LTD.**  
Toronto R. INNES, B.S.A., Manager Ontario

**SPECIAL No. 26** Sent to your Express Office carefully packed, for \$5.00  
**8 Beautiful House Plants**  
AND  
**100 Choice Winter Flowering Bulbs**  
All for \$5.00

We stake our reputation on this Special Bargain. The most careful buyer cannot select better quality or get more for the money. The plants are all thrifty and healthy; of full blooming size, and such only as will do well in the ordinary home atmosphere. The bulbs are those that are sure to bloom and thrive and give delight to the inmates of the home all through the long Canadian winter. Send us \$5.00 and we will express to you as follows:

**PLANTS**

- 1 Choice Ostrich Plume Fern.
- 1 Fine Boston Fern.
- 1 Splendid Chinese Primrose.
- 1 Beautiful Oyclamen.
- 1 Rare Begonia.
- 1 Fine Cineraria.
- 1 Strong Asparagus Fern.
- 1 Large Kentia Palm.

Our regular selling price of these plants will average 50c each, and some of them we retail at One Dollar each.

**BULBS**

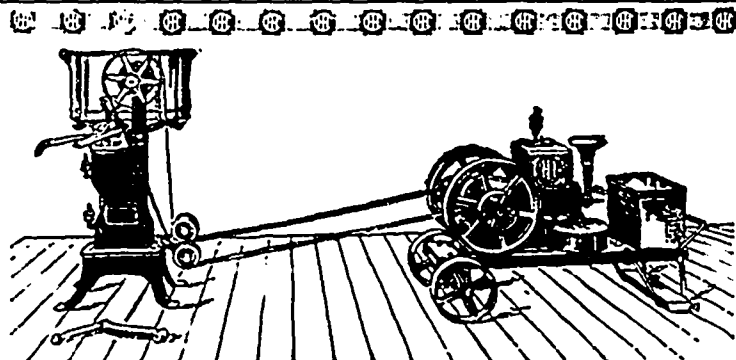
- 12 Early Narcissus Paper White.
- 12 Early Roman Hyacinths.
- 12 Freesia Mammoth etc.
- (The above are for early Xmas bloom).
- 12 Dutch Hyacinths (all colors).
- 12 Choice Single Tulips (all colors).
- 12 Superb Double Tulips (all colors).
- 12 Double Daffodils, a choice assortment.
- 12 Single Daffodils, a choice assortment.
- 2 Chinese Sacred Lillies.
- 2 Bermuda Easter Lillies.

Cultural directions for these Plants and Bulbs are found in our Catalog, which we mail free.

The above bulbs will give continuous bloom until Easter Catalogue prices of these bulbs is \$4.00.

This Order is Not Good after December 15th.

**The Hay, Floral & Seed Co.**  
Seedmen and Florists  
**ROCKVILLE - ONT.**



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POUR your milk into an IHC cream separator.

Out of the cream spout will come close to 9,999 parts of cream for only one part that goes into the skim-milk pail. That's marvelously close separation; it means every possible dollar of dairy profit from your cows.

It takes an IHC separator to do such efficient work. Every detail has its use, every mechanical point its purpose. Shafts and spindles are the strongest made for separators. Bearings all have phosphor bronze bushings. Gears work without back lash, and they are protected from dirt and grit. In short, everything in

## IHC Cream Separators

### Dairymaid, Bluebell, or Lily

makes for great strength and durability. Perfect adjustment and balance mean smoothness and ease in operating, hence continued satisfaction during long life. All parts are easily accessible for cleaning. There are four convenient sizes of each style.

Then if you have a one-horse power back-gear IHC engine to complete your separator outfit, you will soon find that an indispensable helper on the farm. It will run steadily and at the proper speed to pump water, run washing machine, churn, grindstone, etc.

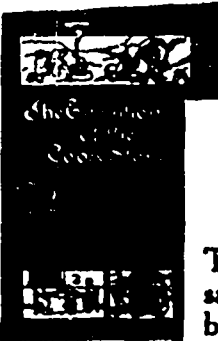
Study IHC separator outfits at the local agent's. Catalogues may be obtained from him, or, write to

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At Hamilton, Ont.; London, Ont.; Montreal, P. Q.;  
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Let us send you our book "The evolution of the Cookstove"—an interesting history of cooking. It also gives a clear, simple description of the Dominion Pride Range—complete in every detail. Reading this book is like examining the range itself.

Send for a copy.

**COUPON**

Canada Malleable & Steel Range Manufacturing Co., LIMITED OSHAWA.

Send a free copy of your book "The Evolution of the Cookstove."

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**Save 30% on your New Range**

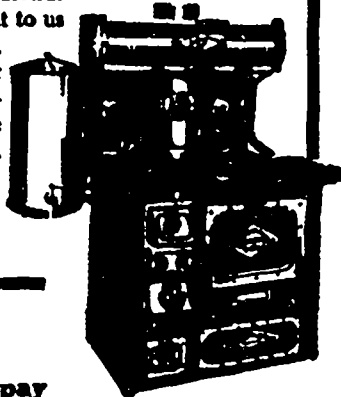
That's about \$20.00 isn't it? And you can save it by ordering direct from the factory (the biggest malleable range plant in Canada.)

Dominion Pride Range is the range you would choose at any price—a beautiful steel range with unbreakable doors, castings and lids of malleable iron—a range that saves coal—a range so solidly built that with care it will last a lifetime.

And you can secure a Dominion Pride Range by making a small payment with your order—the balance on terms to suit your convenience.

**Dominion Pride Range**

Thousands upon thousands of Canadians have sent to us direct for their ranges, and we have yet to hear a complaint. Our unconditional guarantee goes with every range.



Wepay Freight

**DAVIES' FERTILIZERS ARE MONEY SEEDS!**

"AS YOU SOW THEM, SO SHALL YOU REAP"

WRITE FOR OUR LITERATURE PATRONIZE OUR AGENTS

**THE WM. DAVIES CO. LTD.**

WEST TORONTO

ONTARIO

**CAN BE SOWN WITH GRAIN DRILL**

(AN UNSOLICITED TESTIMONIAL FROM ONE OF OUR MANY SATISFIED CUSTOMERS)

THE WM. DAVIES CO., LTD., WEST TORONTO, ONT. SPRUCELEA FARM, Sept. 22nd, 1913. GENTLEMEN:

My Fertilizer came to hand all right and I thank you for your promptness in making shipment.

I had no trouble in sowing it as a top dressing over my wheat. I have a Massey Harris No. 5 disk drill. I took the disks off and sowed it with the drill in that shape. The dangling of the coil steel tubes, caused by the unevenness of the ground, scattered the Fertilizer over every inch of the ground.

A Massey Harris Agent told me it was impossible to sow Fertilizer with a grain drill—but if your Fertilizers always come as dry as this I bought, then the grain drill will do quite nicely for me. Now for results.

Kindly quote on the following Poultry Foods, etc., etc. Yours very truly, (Signed) W. H. WATERBURY.

It isn't a question as to whether you should use Fertilizer or not—the question is, can you afford not to use Davies. Take the word of thousands of Ontario Farmers for it—you can't.

**Programme Arranged**

An unusually helpful and instructive programme is being prepared for the convention of the Ontario Horticultural Association, which will be held in Toronto on Thursday and Friday, November 20th and 21st, at the same time as the Ontario Horticultural Exhibition and the first National Live Stock and Dairy Show. At a meeting of the directors of the association held in Toronto this fall, it was decided to hold the convention on the Exhibition Grounds, provided suitable arrangements could be made and that the other conventions that would be meeting about the same time meet there also. It is understood that dining privileges are to be arranged for on the Exhibition Grounds.

The programme this year will devote more attention than usual to the work of the individual societies in order that the delegates who attend may be enabled to obtain helpful ideas regarding the work that may be undertaken by the societies. Speakers are to be secured from societies that have made a distinct success holding lawn and garden competitions, regular exhibitions, and of other similar work.

Among the leading speakers it is expected will be Mr. John Nolan, of Cambridge, Mass., who is an authority on civic improvement, and whose address will be illustrated. Mr. H. J. Moore, of Queen Victoria Park, is to be asked to give an address on the "Ornamentation of Town Boulevards and Country Roads."

In addition, Park Commissioner C. E. Chambers, of Toronto, will be asked to give an address on "Parks and Boulevards for Small Towns." An effort is to be made also to have an address by an authority on school gardens. Copies of the programme, as finally completed, will be mailed to the horticultural societies at as early a date as possible.

**Results from Pre-cooling**

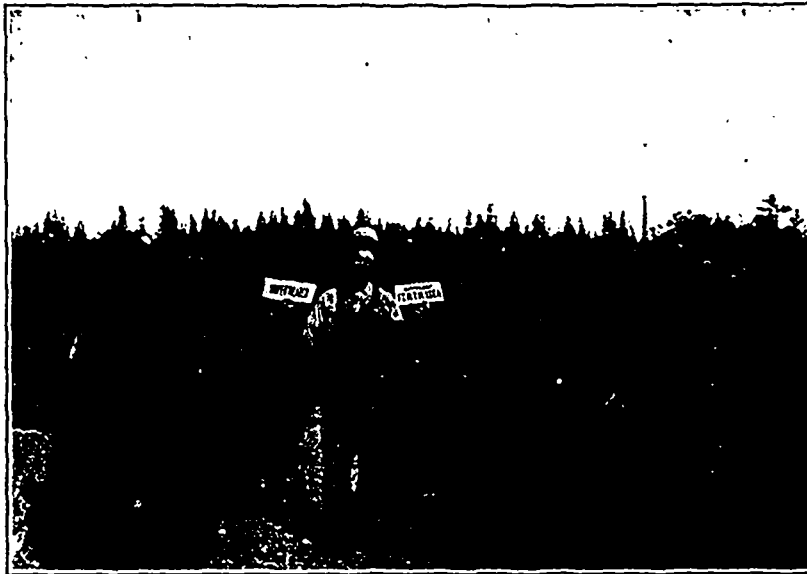
Several car loads of fruit this fall were shipped from the pre-cooling plant which was established last summer at Summerland, B. C. The first car which went to Edmonton arrived in fine condition, selling at \$1 a box. A thermograph placed in the car showed considerable fluctuation of temperature en route, going as high as 70 degrees. Another car did not arrive in such good condition, but the thermograph record was better. The temperature of the fruit was from 4° to 65 degrees. After loading the car, the temperature dropped rapidly, going down as low as 50 degrees.

Tests of the plant have shown records as low as 23 degrees. The fruit itself registered 45, which is about as low as is advisable to bring the temperature. A different plan is to be adopted—that of cooling the fruit before it is wrapped and packed. Ripening will thus be checked that much earlier.

Recent bulletins and circulars received by The Canadian Horticulturist include: Special Bulletin 61, Spray and Practice Outline for Fruit Growers, 1913; Special Bulletin, 60, Celery Culture in Michigan; Special Bulletin 59, Small Fruit Culture; Circular No. 20, Starting a Lawn; all four issued by the Michigan Agricultural College Experiment Station. Bulletin No. 134, A Dry Rot of the Irish Potato Tuber, and Press Bulletin No. 40, Potash Pointers, are issued by the University of Nebraska Agricultural Experiment Station. Facts about Flies and Mosquitoes, and How to Prevent Them, are two pamphlets issued by the Provincial Board of Health for Ontario.

# POTASH MEANS PROFIT

EXPERIMENT ON THIMBLEBERRIES  
 Conducted by Messrs. Cruise Bros., Kootings, B. C.



The following materials were applied to the fertilized plot:—  
 200 lbs. Muriate of Potash  
 400 .. Acid Phosphate  
 140 .. Nitrate of Soda, per acre

BECAUSE—

**Potash Improves Quality  
 Potash Increases Quantity  
 Potash Promotes Maturity**

THESE THREE IMPORTANT FACTS have been proved to the satisfaction of a large number of Market Gardeners and Orchardists throughout the Dominion.

Government statistics show a large increase in the consumption of POTASH during the past fiscal year. The above FACTS are the REASONS for this INCREASE. CAN YOU AFFORD TO OVERLOOK THEM?

Write us for FREE copies of our educative and illustrated Bulletins on the important subject of fertilization, which include:—

- “Fertilizing Orchard and Garden”
- “Artificial Fertilizers, Their Nature and Use”
- “Principal Potash Crops in Canada”
- “Farmer’s Companion”
- “Fall Application of Fertilizers”

**THE GERMAN POTASH SYNDICATE, 1102-5-6 Temple Bldg. Toronto, Ont.**

## PUBLIC DISCLAIMER

**KELWAY & SON**, Wholesale Seed Growers, Langport, England, hereby give notice that they have no Agents in Canada for the sale of their Seeds and Plants, and it having come to their notice that A. W. Smith, of Beachville, Ontario, also trading as

Riverview Nursery Co., of Woodstock, Ont.  
 Smith’s Nurseries, “Ingersoll  
 Imperial Seed Co., “Woodstock

are advertising themselves as “Agents,” find it necessary to insert this disclaimer.

We state most emphatically that any person or persons making use of our name in the sense of an Agent does so without our permission and we are taking steps to protect our rights.

**KELWAY & SON** cater for the requirements of bona fide members of the Seed and Nursery trade, and any enquiries and orders sent direct to them at Langport, England, will receive prompt and careful attention.

## **KELWAY & SON**

Wholesale Seed Growers and Merchants

**LANGPORT, ENGLAND**

Estd. 1851

## WARNING

It has been brought to our notice that a so-called Nursery and Seed concern is representing itself as a branch of the “Helderleigh Nurseries.” To protect our interests, and to preserve a good reputation of over thirty years, we feel it necessary to advise the general public that we have no connection whatever with any firm trading under the name of **Smith**, and operating from different points in Western Ontario.

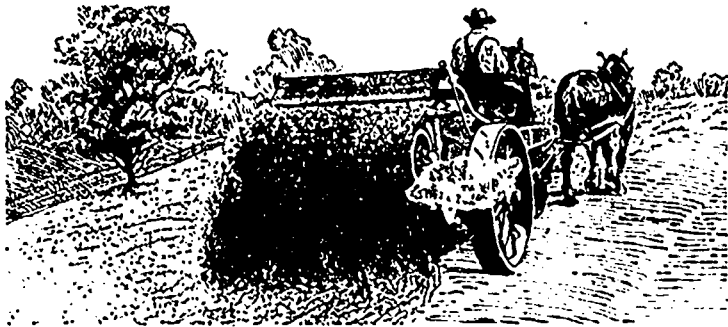
Parties knowing of such representations being made will confer a favour by advising us immediately.

**E. D. SMITH & SON, Limited**

NURSEYMEN, ETC.

WINONA (Wentworth Co.)

ONTARIO



## Seven Solid Reasons

**S**EVEN solid reasons why each farm needs a manure spreader are these, in the words of a farmer who has devoted much time to correct soil feeding. 1. It saves disagreeable and hard work. 2. It pulverizes and mixes the manure mass. 3. It distributes manure evenly over the field, insuring a good even stand of grain. 4. It prevents loss of nitrogen through fermentation or leaching in the pile when manure is hauled directly from the stable. 5. With it manure can be put on plowed ground in winter to be disked as soon as the ground is fit in spring. 6. It will put manure on meadows as a moisture-preserving mulch and to furnish the grass roots with the liberated plant food. 7. Indirectly, the ease with which it can be handled encourages the owner to care for the manure and place it where it will do most good instead of dumping it anywhere for lack of time or inclination.

## I H C Manure Spreaders

Deering and McCormick

will do all these things for their owners. They will do them well and satisfactorily. Choose the right machine for your work and conditions from the complete I H C line. You will find them all styles and sizes, high and low, endless apron or reverse.

I H C manure spreaders are exceedingly durable, strong, correctly built to stand all conditions and all strains they may meet. Each feature has its purpose. Uphill or down, or cutting corners, they spread all kinds of manure evenly, in a light or heavy coat at the choice of the driver. The beater drive is strong and simple, beater teeth are square and chisel pointed to pulverize the manure, and the large diameter of the beater prevents winding. The wide-rimmed rear wheels, carrying a large percentage of the load, insure ample tractive power.

But see all these things yourself at your local agent's. He will explain each one, and many more we have not space to mention here. The agent has catalogues for you, or, write the

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We have a large stock of all sizes on hand, and can ship orders without delay.

Order Now Before the Rush

Our pots are smooth and well burnt. We have our reputation to keep up.

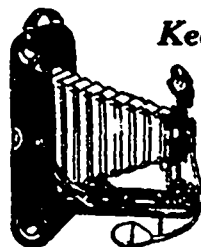
Send for Catalogue & Price List

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Have a Garden Straight from England

**KELWAY & SON**

The Royal Horticulturists  
Langport, Somerset, England



Keep an

accurate

**Kodak Record**

There's a practical common sense use for photography in the work of every business farmer—and photography by the Kodak system is both simple and inexpensive.

Catalog free at your dealers or by mail

**Canadian Kodak Co., Limited**  
TORONTO

## Quebec Pomological Society

R. A. Rousseau, B.S.A., Acton-Vale, Que.

The summer meeting of the Quebec Pomological Society took place at Rougemont, the centre of the well-known fruit growing county of Rouville, on September 8th and 9th. The meeting was presided over by Rev. Father Leopold of the Monastery of La Trappe, Que., who delivered a practical address on "The Way to success in the Production of Fruit."

Mr. J. A. Jacobs, the president of the Cooperative Society of Rouville County Fruit Growers, welcomed the members. He was followed by R. A. Rousseau, B.S.A., who spoke on "Pruning the Orchard."

Mr. J. C. Chapais, the well known lecturer, described a new emulsion for insects and diseases. Every nurseryman, every fruit grower, knows how difficult it is to apply the petrol emulsion to check the aphid or plant lice on nursery stock and fruit trees. If we have also to kill caterpillars, we are obliged to make two applications—one for the plant lice and one for the caterpillar. Hence it would be very economical if we could control both of them, with only one application. Mr. Chapais described a new emulsion which has been tested in France with excellent results, and proposed that a small quantity be imported next spring and experimented with in the demonstration orchards. The suggestion was carried unanimously.

Mr. Chas. P. Byers, of St. Paul d'Abbotsford, spoke on "Cultivation in the Orchard," and Henri Cloutier, B.S.A., superintendent of the demonstration orchards for Rougemont and St. Hilaire, dealt with "The Harvesting and Conservation of Fruits."

Ben Richardson, B. S. A., superintendent for Abbotsford and Covey Hill demonstration orchards, spoke on "Insecticides and Fungicides—the Best Practical Methods to Prepare and Use Them." This is a timely subject for our fruit growers who, practically, have only recently realized the great benefits of a liberal spraying. The demonstration orchards have done a great deal to induce fruit growers of Rouville and elsewhere, in the province to spray and spray again.

F. M. Clement, B.S.A., told about his trip through New York state and Western Ontario.

Mr. Clement was confident that we are progressing and that our district is not surpassed regarding all conditions best suited for the production of fruits. He was pleased to note that the Cooperative Society of Rouville is erecting at Rougemont, near the railroad track, a large warehouse, which will be used to grade, to pack, and to keep for the fruit growers and consumers' best interests our two famous Quebec apples—the Fameuse and the McIntosh Red.

Rev. Father Leopold, speaking English as well as French, closed the convention by saying good words to all those who are devoted to fruit growing and who had worked so hard to make our summer meeting a real success.

The carriage of fruit by post is being introduced in New Zealand by the New Zealand Government. Arrangements have been made with the railways, and carrying companies whereby the fruit can be shipped direct from producer to consumer.

Tell advertisers that you saw their advertisement in The Canadian Horticulturist.

# FRUIT, FLOWERS AND VEGETABLES

The Annual Fall Exhibition of the Ontario Horticultural Association will this year be held in conjunction with the

## National Live Stock, Horticultural and Dairy Show

EXHIBITION PARK, TORONTO

November 17 to 22

¶ The most complete and elaborate collection of flowers that can be brought together in the Dominion, is gathered by the Ontario Horticultural Association for this occasion. New varieties, rare specimens and artistic emblems will represent the latest development of the horticulturists' art.

¶ In the fruit section the apple show will reach a new high standard. The im-

portance of the National Live Stock, Horticultural and Dairy Show, will give this section a wider significance throughout the country.

¶ Vegetables and honey will have larger space and improved facilities.

¶ The Women's Institutes of Ontario are meeting in convention at the same time as the show, and their exhibit of preserved fruits will be on a large scale.

**ENTRIES IN THIS DEPARTMENT CLOSE NOVEMBER 5th**

Complete prize lists on application to

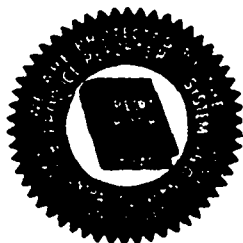
**R. J. FLEMING, President**

**A. P. WESTERVELT, Manager**

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Branch Warehouses:  
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Send for  
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**WE GET YOU BEST PRICES**

OUR facilities enable us to realize top prices at all times for your fruit, vegetables or general produce. Aside from our large connection on the Toronto market, we have established branch warehouses with competent men in charge at Sudbury, North Bay, Cobalt, Cochrane and Porcupine. In time of congestion on the Toronto market we have a ready outlet through these branches. We never have to sacrifice your interests.

References: The Canadian Bank of Commerce, (Market Branch) and Commercial Agencies.

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88 Front St. East, Toronto





**NEW COAL OIL LIGHT BEATS ELECTRIC OR GASOLINE**  
**10 Days FREE—Send No Money**



We don't ask you to pay us a cent until you have used this wonderful modern light in your own home for ten days, then you may return it at our expense if not perfectly satisfied. We want you to prove for yourself that it gives five to fifteen times as much light as the ordinary oil lamp; beats electric, gasoline or acetylene. Lights and is put out just like the old oil lamp

**BURNS 70 HOURS ON 1 GALLON OIL**

Gives a powerful white light, burns common coal oil (kerosene), no odor, smoke or noise, simple, clean, won't explode. Guaranteed.

**\$1000.00 Reward**

will be given to the person who shows us an oil lamp equal to this Aladdin in every way (details of offer given in our circular). Would we dare make such a challenge to the world if there was the slightest doubt as to the merits of the Aladdin? We want one person in each locality to whom we can refer customers. Write quick for our 10 Day Absolutely Free Trial Proposition, Agents' Wholesale Prices, and learn how to get **ONE FREE**.

**MANTLE LAMP CO., 715 Aladdin Bldg., Montreal & Winnipeg**

**AGENTS WANTED**  
 to demonstrate in territory where oil lamps are in use. Experience unnecessary. Man's agents average five sales a day and make \$200.00 per month. This farmer cleared over \$500.00 in 6 weeks. You can make money evenings and spare time. Write quick for territory and sample.

**Apple Selling in the North of England**

Harry C. Watton, Manchester, England

From early in October until the end of the American or Canadian season the apple trade occupies by far the most important place in the fruit business of the enormously populated districts surrounding Manchester and Liverpool. Of course we have other fruits as well, but apples are easily first in importance and value, more so now than at any other period of the year. Since the trade with the Antipodes has developed they are seen on our market all the year round, and it may be well to remark in passing that this latter fact has done much to still further popularize the use of our principal winter fruit.

Apples arriving at Liverpool or in Manchester by the Ship Canal may be separated into two classes, namely those sent to the brokers, and those sent to private firms. By far the greater bulk go to the former, so we may well take their method of procedure first.

In Liverpool there are six, and in Manchester three firms of brokers. In each city they are formed into a very powerful association. Although each of the members of these associations has its own individual interests and its own staff and offices, there is a common auction room, where each firm takes it in turn to sell its fruit by auction, commencing with the firm whose turn it is to sell first, and the others following in rotation. Naturally the auctioneers themselves are very highly trained, and can judge the value of the goods to a nicety. They one and all sell at a terrific rate especially on a big day, and it is almost impossible for one unaccustomed to the saleroom to follow the business at all, even with the aid of the printed catalogue.

**CENTRAL NURSERIES, ST. CATHARINES, ONT.**

Have a Fine Assortment of  
**Trees, Vines, Plants, Oramentals, Etc.**  
 For Fall Planting

**For Satisfaction, Plant Cherry Trees in Fall**

Our prices are right and so are the trees. Send for priced catalogue if you have none, also your want list for special prices on Apple Trees. We can please you.

Look over our Price List No Agents  
**A. G. HULL & SON**




**TREE PRUNERS**

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BEST IN QUALITY  
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**THE STRONGEST MADE**




Happy Thought



Orchard King

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MADE ONLY BY

**TAYLOR-FORBES COMPANY**  
 Limited

Kansas GUELPH, ONTARIO

**Program of the Fruit Convention**

A cursory glance at what is only a partial list of the speakers before the coming convention of the Ontario Fruit Growers' Association, will assure us that the success of this coming meet will be quite in keeping with the standard set by former conventions. For those interested we herewith publish the names of the speakers with their subjects:

- President's address—W. H. Dempsey, Trenton, Ont.
- Peach Insects, and the present condition of Little Peach and Yellows—L. Caesar, O.A.C.
- Transportation Report—G. E. McIntosh, Forest, Ont.
- Help in Fruit Picking Time—Mrs. L. A. Hamilton, Lorne Park, Ont.
- Importance of Demonstration Work—R. S. Duncan, Port Hope, Ont.
- Color on your Fruit and how to Get it—W. F. Kydd, Fruit Branch.
- The Factors which enter into the Choice of Varieties for a Commercial Plantation of Apples—Prof. J. W. Crow, O.A.C.
- Precooling (paper)—S. J. Dennis and H. J. Ramsay, U. S. Dept. of Agriculture.
- Fruit Packages—R. M. Winslow, Victoria, B.C.
- Advertising the Apple—U. G. Border, Chairman Advertising Committee International Apple Shippers Association.
- Current and Gooseberry Culture—L. B. Henry, Winona, Ont.
- The Northwest Market—Robert Thompson, St. Catharines.

# Imperial Bank

Established OF CANADA 1875  
 Capital Authorized - \$10,000,000  
 Capital Paid Up - 6,925,000  
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D. R. WILKIE, President and General Manager

Open a SAVINGS BANK ACCOUNT. Deposits of \$1.00 and upward received

## THIS WASHER MUST PAY FOR ITSELF.

A MAN tried to sell me a horse once. He said it was a fine horse and had nothing the matter with it. I wanted a fine horse, but, I didn't know anything about horses much. And I didn't know the man very well either.

So I told him I wanted to try the horse for a month. He said "All right," but pay me first, and I'll give you back your money if the horse isn't all right."

Well, I didn't like that. I was afraid the horse was'n't "all right," and that I might have to whistle for my money if I once parted with it. So I didn't buy the horse, although I wanted it badly. Now, this set me thinking.

You see I make Washing Machines—the "1900 Gravity" Washer.

And I said to myself, lots of people may think about my Washing Machine as I thought about the horse, and about the man who owned it.

But I'd never know, because they wouldn't write and tell me. You see I sell my Washing Machines by mail. I have sold over half a million that way. So, thought I, it is only fair enough to let people try my Washing Machines for a month, before they pay for them, just as I wanted to try the horse.

Now, I know what our "1900 Gravity" Washer will do. I know it will wash the clothes, without wearing or tearing them, in less than half the time they can be washed by hand or by any other machine.

I know it will wash a tub full of very dirty clothes in Six Minutes. I know no other machine ever invented can do that, without wearing the clothes. Our "1900 Gravity" Washer does the work so easy that a child can run it almost as well as a strong woman, and it don't wear the clothes, fray the edges, nor break buttons, the way all other machines do.

It just drives soapy water clear through the fibres of the clothes like a force pump might.

So, said I to myself, I will do with my "1900 Gravity" Washer what I wanted the man to do with the horse. Only I won't wait for people to ask me. I'll offer first, and I'll make good the offer every time.

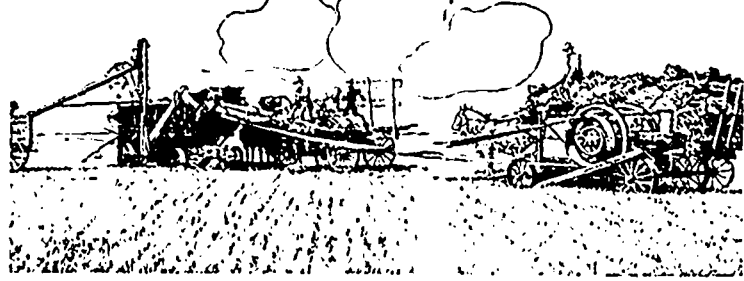
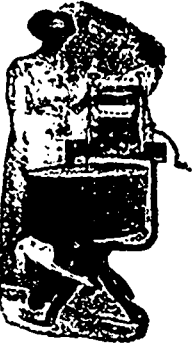
Let me send you a "1900 Gravity" Washer on a month's free trial. I'll pay the freight out of my own pocket, and if you don't want the machine after you've used it a month, I'll take it back and pay the freight too. Surely that is fair enough, isn't it?

Doesn't it prove that the "1900 Gravity" Washer must be all that I say it is?

And you can pay me out of what it saves for you. It will save its whole cost in a few months in wear and tear on the clothes alone. And then it will save 50 to 75 cents a week over that in washwoman's wages. If you keep the machine after the month's trial, I'll let you pay for it out of what it saves you. If it saves you 50 cents a week, send me 50 cents a week 'till paid for. I'll take that cheerfully, and I'll wait for my money until the machine itself earns the balance.

Drop me a line to-day, and let me send you a book about the "1900 Gravity" Washer that washes clothes in six minutes.

Address me personally:  
 B. H. MORRIS, Manager, "1900" Washer Co., 357 Yonge St., Toronto.



## Backing Up the Purchaser

IF we didn't have an eye to the future, and if we didn't care what you or anybody else was going to think of us, we could sell engines and other machines for much less money, but we could not put I H C quality into them. The kicks would start coming in right away, and soon there would be no market for I H C engines.

I H C engines stand for everything that is opposed to such a policy. The I H C way is to build always for the respect and good will of the Canadian farmer, and to that end it has been successfully working for many years. The agent who sells you an I H C engine expects on its merits to do business with you again. The purchaser of an

## I H C Oil and Gas Engine

buys security and safety with it. He banks on the many years of square dealing and the reputation back of all I H C machines. He knows it is the best engine bargain because it gives him efficient service in all kinds of farm work—pumping, sawing wood, spraying, running repair shop, grindstone, cream separator, etc. He knows that I H C responsibility is always back of the engine.

I H C oil and gas engines operate on gas, gasoline, naphtha, kerosene, distillate, and alcohol. Sizes range from 1 to 50-horse power. They are built vertical, horizontal, portable, stationary, skidded, air-cooled and water-cooled. I H C oil tractors range in size from 6-12 to 30-60-horse power for plowing, threshing, etc.

Look over an I H C engine at the local agent's. Learn from him what it will do for you, or write for catalogues to

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A book of 96 pages, fully illustrated. Game Laws revised to date—tells you how, when and where to trap, bait and traps to use, and many other valuable facts concerning the Raw Fur Industry, also our "Up-to-the-minute" for quotations, sent ABSOLUTELY FREE for the asking.

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**MAGIC BAKING POWDER**

CONTAINS NO ALUM

**MANY BRANDS OF BAKING POWDER CONTAIN ALUM WHICH IS AN INJURIOUS ACID. THE INGREDIENTS OF ALUM BAKING POWDER ARE SELDOM PRINTED ON THE LABEL. IF THEY ARE, THE ALUM IS USUALLY REFERRED TO AS SULPHATE OF ALUMINA OR SODIC ALUMINIC SULPHATE.**

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THE ONLY WELL-KNOWN MEDIUM-PRICED BAKING POWDER MADE IN CANADA AND WHICH HAS ALL ITS INGREDIENTS PLAINLY STATED ON THE LABEL.

**E. W. GILLETT COMPANY LIMITED**  
WINNIPEG TORONTO, ONT. MONTREAL.



**Black Knight Stove Polish**

**MAKES HOME BRIGHTER AND LABOR LIGHTER**

A PASTE | THE F. F. DALLEY Co. | NO DUST  
NO WASTE | HAMILTON, CANADA | NO RUST

# ENGLISH HAND-MADE LACE

MADE BY THE COTTAGERS OF BUCKINGHAMSHIRE.

This is the old-fashioned lace made on the cushion, and was first introduced into England by the Flemish Refugees. It is still made by the village women in their quaint old way.

Our Laces were awarded the Gold Medal at the Festival of Empire and Imperial Exhibitions, Crystal Palace, LONDON, ENGLAND, for general excellence of workmanship.

BUY some of this hand-made Pillow Lace, it lasts MANY times longer than machine made variety, and imparts an air of distinction to the possessor, at the same time supporting the village lace-makers, bringing them little comforts otherwise unobtainable on an agricultural man's wage. Write for descriptive little treatise, entitled "The Pride of North Bucks," containing 20 striking examples of the lace makers' art, and is sent post free to any part of the world. Laces for every purpose can be obtained, and within reach of the most modest purse.

**Collars, Fronts, Plaques, Jabots, Yokes, Pichas, Berthes, Handkerchiefs, Stockings, Camisoles, Chemise Sets, Tea Cloths, Table Centeres, W'Oryles, Mats, Medallions, Quaker and Peter Pan Sets, etc.** from 25c. 50c., \$1.00, \$1.50, \$2.00 up to \$5.00 each. Over 200 designs in yard laces and insertion from 10c. 15c., 25c., 45c., up to \$1.00 per yard.

**IRISH CROCHET.** Mrs. Armstrong having over 100 Irish peasant girls connected with her industry, some beautiful examples of Irish hand-made lace may be obtained. All work being sold direct from the lace-makers, both the workers and customers derive great advantage.

Every sale, however small, is a support to the industry.



COLLAR—Pure Linen. \$1.00.

DAISY HANDKERCHIEF—70c. No. 210.—Lace 1 1/2 in. deep.

No. 122—30c. per yard.

MRS. HORACE ARMSTRONG, OLNEY, BUCKS, ENGLAND

**Nova Scotia**

Nova Scotia apples have just commenced to reach London. Messrs. Nothard & Lowe's state that an unusual proportion of the shipments consist of number three fruit, and whereas the quality of the Blenheims and the small quantity of number one Gravensteins which have come to hand is quite good, the condition of the number three Gravensteins is distinctly bad. Several barrels opened contained a lot of apples suffering from black spot.

Present quotations for apples of almost all kinds are high, and Messrs. Nothard & Lowe and other firms consider that good quality sound Canadian fruit is likely to continue to command high prices during the coming season, although English and other apples have derived considerable benefit from the unusually fine weather which has prevailed for the past few weeks and the crop has consequently come out a little better than was expected.

The great fruit counties of Hants, Kings and Annapolis, Nova Scotia, held their annual exhibition on October 7-9, at the town of Windsor. The exhibition was an unqualified success. The display of fruit and vegetables was remarkable, not only for the choice quality of the exhibits but also for the number of entries.

Nova Scotia growers by organizing have secured a rate on apples from Nova Scotia to Winnipeg, which is one cent per barrel lower than on apples shipped from Ontario to Winnipeg.

**British Columbia**

An agitation is being conducted in many quarters to procure a reduction in the rates of the Dominion Express Company for carrying fruit. The fruit industry of the province is largely dependent upon the service given by the company.

In an open letter which was published recently, Mr. S. J. Fee, Manager of the Vernon Fruit Company, asserts that the peach industry of the province might be saved and the company increase its dividends were it to give a better service. Mr. Fee prints out that it takes several days to pick, pack and assemble a carload of peaches; that peaches must be assembled with other fruits to make a "mixed car," and that when loaded it must pass through the hands of a broker, a wholesaler and a retailer, whose charges must be paid. The balance, if any is left, is all the producer realizes. He claims that the amount received by the grower is so small peach growing in British Columbia is proving unprofitable.

The freight rate on car loads is practically twenty cents a crate with an additional ten cents local freight from distribution points to smaller towns. Mr. Fee advocates the making by the Dominion Express Co. of a flat rate on peaches of thirty cents a crate to all points in Alberta, which would be equal to the present freight rate, and save much of the handling by middlemen. Similar reductions are advocated for berries, cherries, apricots and plums.

At a banquet recently held in Okanagan, Hon. Price Ellison stated that what the fruit growers require more than anything else is a better system of marketing. A comparison of the prices received by the grower and those paid on the Vancouver market, shows that there is much room for improvement. The opportunities confronting the British Columbia fruit grower may be understood when it is considered that 15 car loads of American fruit went into Vancouver in one day. Demand still exceeds supplies.

### Canadian Fruit in England;

Mr. Harrison Watson, Trade Commissioner, London, Eng.

Large shipments of pears have been arriving in London lately, but up to October first, although prices had fallen to some extent, the market has borne these abnormal supplies well and the drop has been less than might have been anticipated. Unfortunately, as is usually the case when the existence of a shortage becomes known, shippers are apt to overdo things, and as still heavier consignments are reported in incoming steamers, while a good many of the pears now arriving are over-ripe and otherwise less carefully selected, a less favorable condition of affairs is likely to be encountered.

The pears come mainly from the United States and Canada, and it is satisfactory to learn from Messrs. W. Dennis & Sons, Ltd., who have handled large supplies of both, that the decline in prices has been more noticeable in the case of Hudson river barrel and other American fruit, the quality of which was inferior to the bulk of the Canadian pears.

#### CANADIAN SHIPMENTS

Some Canadian Bartletts in barrels realized twelve dollars a barrel (160 lbs. net), which is considered very satisfactory. The firm has also handled a considerable quantity of half-boxes of Bartletts, the bulk of which has come from Canada. Although the bulk of Canadian pears arrived in good condition, and were well packed, in some cases only a portion of the fruit was wrapped, this being usually one row only of the top layer. Messrs. Dennis & Sons, Ltd., consider that this is unwise, and that each pear should have its wrapper, and they point out that "the fruit looks much nicer when wrapped in the grower's printed wrapper, sells much more freely and invariably makes more money."


#### PEACH SALES

It is reported from Ottawa that a good many peaches have been sent to the United Kingdom, but only a small proportion of these appear to have been consigned to London. Messrs. Dennis & Sons, Ltd., received some of these and speak very highly of the quality of the fruit and the condition in which it was marketed. They state that the few boxes which they received met with a ready sale, boxes containing thirty-six to forty-eight fruits being sold at two dollars and twenty-five cents to two dollars and seventy-five cents, which is an enormous advance upon the prices realized in former years. It should be noted, however, that the present condition of the fruit market is quite exceptional, owing to the almost universal failure of the fruit crops generally, and that whereas there is no reason why a regular and profitable trade in Canadian peaches should not be developed, shippers cannot hope to secure anything like these prices in an average year.

As mentioned, these boxes of peaches were well packed, but dealers report that the use of a certain quantity of excelsior or wool wool is to be strongly recommended. Although the condition of these particular peaches could not be improved upon, their experience is that this delicate fruit is liable to be bruised in transit, and unless this class of packing is adopted, damage from this source is sure to occur from time to time.

#### COMMENTS BY LEADING IMPORTERS

Messrs. R. & W. Davidson, Ltd., who have handled a large proportion of the Canadian pears which have been shipped not only to London but also to Liverpool and Glasgow, this season, state that generally speaking the condition in which the fruit arrived has been excellent, and they



**NA-DRU-CO** Tasteless Preparation of **Cod Liver Oil**

**Prevents Sickness**      **Restores Health**

Are you one of those thousands who, though apparently well, catch cold easily and often? It's a dangerous condition to tolerate, and one which you can easily prevent by taking two or three bottles of Na-Dru-Co Tasteless Preparation of Cod Liver Oil at once—this Fall.

This pleasant-tasting food- tonic gives tone and vigor to the whole system, and so strengthens lungs and bronchial tubes that they readily throw off the colds which would otherwise take hold of you.

By virtue of its remarkable combination of curative and nutritive properties, Na-Dru-Co Tasteless Cod Liver Oil is one of the very best remedies known for chronic coughs and colds, bronchitis, asthma and catarrh. It is also an excellent reconstructive tonic after fevers, and in diseases such as scrofula and ticks, which are due to constitutional weakness.

Prove its worth by getting a 50c. or \$1.00 bottle from your Druggist. 311

**NATIONAL DRUG AND CHEMICAL CO. OF CANADA, LIMITED.**

## Merry Xmas

Will soon be here, and with it the joy of sending remembrances to

### YOUR FRIENDS

Many of them, no doubt, have a flower or vegetable garden in which they are especially interested.

Why not combine pleasure with practical usefulness, by having The Canadian Horticulturist sent to them for one year?

They would be delighted to receive a magazine that would tell them how to grow the best flowers and vegetables, that is filled from cover to cover with attractive illustrations and the most seasonable and practical information on horticulture that can be secured. It would also be a pleasant reminder of your friendship from month to month.

#### A Yearly Subscription is 60c.

Send in the name and address of a friend, together with 60c. We will send the Special Christmas Number of The Canadian Horticulturist just in time to be received before Christmas Day, and we will also notify the recipient that it is being sent with your compliments.

### The Canadian Horticulturist

PETERBORO, ONTARIO

# Big Ben



## To wake up on the installment plan

Big Ben gets you up on the installment plan, a little at a time, by ringing every other half minute for ten minutes, so you'll wake up gradually. Or he'll do the whole job all at once, with one long, straight, five-minute ring.

You can set him to do it as you choose, and shut him off short in the middle of his call either way.

That makes him two good clocks in one, to suit everybody's taste in early rising.

He plays no pranks. He won't go off before it's time and rob you of your full measure of sleep. He won't go off behind time and rob you of your work time. It's Big Ben's business to run on time, to ring on time and stay on time.

Big Ben attends to his own business and helps you attend to yours by getting you and the farm hands out early.

Then he sticks around the house and keeps time all day for the woen folks so they can have your meals on time.

There never was a clock that fitted in better with farm work.

He's triple-nickel plated and so handsome you'll want to keep him in the parlor instead of a bedroom.

Stands seven inches tall from the top of his head to the tip of his foot; has long, easy-winding keys, large hands, and big figures that you can read at a distance on dark mornings, and is built of good implement steel so he'll last for years. He's doing this kind of work in 1,000,000 American houses today.

As thousands of Canadian dealers sell him his price is \$1.00 everywhere. A company of clock-makers stand back of him. Their stamp, "Made in LaSalle, Illinois, U.S.A., by Wenzel," is the best alarm-clock insurance you can buy.

have courteously drafted a special report about this trade which is reproduced for the information of Canadian shippers:

"Our first arrival in London by the Corinthian was a large one, nearly three thousand boxes and half-boxes. These arrived on September 22. The half-boxes were all in nice condition, but the whole boxes, generally, were rather forward. For the half-boxes we made first-class prices, ranging from one dollar and fifty cents to two dollars for Bartletts, with one or two particularly choice lots making as high as two dollars and fifty cents to two dollars and seventy-five cents. The boxes were sold at from two dollars and fifty cents to three dollars. We would suggest strong recommendation be made to Canadian shippers to pack pears in half-boxes only. The boxes should contain about twenty-two pounds net weight of fruit, and each fruit should be separately paper wrapped. In some cases we have noted packers wrapping top and bottom layer only.

"We had shipments also in the Sicilian and Ascania, but in neither of these cases was the condition anything like so satisfactory, and some of the fruit was packed in very small packages, half-boxes containing only sixteen and one-half pounds gross, which would mean probably about thirteen pounds net. This is quite a satisfactory package, but we consider it is a mistake to depart from a uniform size. In addition to the fact that the fruit was all rather forward, the market had in the meantime been freely supplied with States fruit of which very heavy shipments came forward in the Minnewaska, and this resulted in considerably lower prices being realized for ordinary half-boxes one dollar and twenty-five cents for Bartletts, one dollar and fifty cents to one dollar and seventy-five cents for Howells, were realized, and a few Flemish Beauties sold at about one dollar.

"We had a few very nice peaches in by the Sicilian. These were in splendid condition and very nicely packed. They realized from two dollars and twenty-five cents to two dollars and seventy-five cents per half-box.

"We anticipate a good market right through the season for apples."

### Items of Interest

A shipment of three thousand bushels of King apples was made recently from St. Catharines, Ontario, to Cape Town, South Africa. These apples were the product of the orchard of Mr. Geo. H. Gooderham, M.L.A., of Toronto, and were packed in special boxes. They were consigned to a Cape Town merchant who was recently a visitor in the Niagara District, and who it is reported has made contracts for additional shipments next year.

The past season has been an extremely busy one throughout the Niagara District. From St. Catharines over one hundred thousand baskets of fruit were shipped in one day. Shipments from Grimby have totaled as high as seventy-three carloads in a week and from Winona as high as one hundred and fifty-two carloads. The cars averaged about eighteen hundred baskets apiece. Shipments from these districts have more than doubled during the past few years, and it is evident that further increases will take place within the next five years.

The kind of members we want in a co-operative fruit growers' association are the ones who will live up strictly to the rules, who will at all times stand back of the association and be loyal to it. This is what is needed in all fruit growers' associations.—James E. Johnson, Simcoe, Ont.

## The Bee-Keepers' Review

Is out on a hunt for new subscribers and has a special offer to make to those subscribing at the present time. The regular subscription price of the *Review* is \$1 per year. Our special offer is to give the last half of 1913, and all of 1914, at the regular annual price, then to those who ask for it we will include the April and May numbers containing the National Convention report for 1913. A bargain worth considering. No extra charge for Canadian postage.

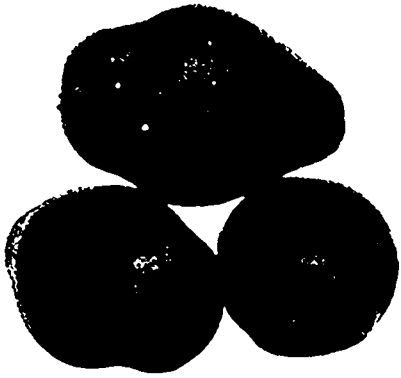
Address with remittance, The Bee-Keepers' Review, Northstar, Michigan.

## A COUNTRY RESIDENCE and Profitable Investment

Manor Farm, Brooklyn Station, Whitby Township, thirty miles from Toronto, on good gravel road, fifty-two acres in fine cultivation, orchard, gardens, ornamental grounds, stream, fish pond, waterfall, rustic bridges, tennis court, residence, 50 x 35, seventeen rooms, barns, stables, etc. Will sell complete with horses, cows and stock. Buildings and stock worth seven thousand. Total price, ten thousand, four thousand down. Suitable for city man's country residence, road house or institution. A competent farmer and his wife manage the farm and market the products. After paying all expenses and owner residing there week-ends during summer, including entertaining over a hundred guests, the farm shows a profit of about twelve hundred dollars. For plans and particulars apply

**ENOCH THOMPSON, LIMITED**

132 BAY STREET • • • TORONTO



The band of russet which has deformed these pears was caused by frost, when the fruit were very small.

Many fruit growers having sprayed with Arsenate of Lead this spring, and finding this russet on certain varieties of apples and pears, might attribute the trouble to using Arsenate of Lead. While an acid Arsenate is always liable to cause foliage burning and russetting of the fruit, very similar to the russetting caused by frost, a neutral Lead, such as

**SHERWIN-WILLIAMS  
NEW PROCESS  
ARSENATE OF LEAD**

cannot harm the fruit or foliage because the Arsenic is completely combined with the Lead. The sun and rain cannot cause disintegration or freeing of the Arsenic in S-W New Process Arsenate of Lead. This often happens when an acid Arsenate is used, and if the acid becomes separated from the Lead it will naturally burn the foliage and fruit.

S-W New Process Arsenate of Lead is a better investment than any acid Arsenate, because it effectively exterminates leaf-eating insect pests without injury to the tree, foliage or fruit, and owing to its very fine and fluffy texture it remains better in suspension and so makes a more uniform spray that will cover a larger area.

Our booklet "Spraying a Profitable Investment," is full of valuable information about spraying and we will send a copy free of cost to any one who sends their name and address.



**THE SHERWIN-WILLIAMS Co.**  
of Canada, Limited  
MANUFACTURERS OF INSECTICIDES  
Offices and Warehouses:  
Montreal, Toronto, Winnipeg, Calgary, Vancouver,  
Halifax, N. S., London, Eng.

Mention Canadian Horticulturist when writing.

**What St. Catharines Can Do**

Robt. Thompson, St. Catharines, Ont.

We have had the most successful season on record, and the longest, with good prices and good records as regards the condition of the cars on their receipt by the purchasers. Our association has shipped this season two hundred cars of fruit to the Western Provinces and more than this to Ontario and Eastern points. Grocers who shipped through our company are well pleased with the results obtained. On one day we shipped fruit to New Westminster, B. C., St. Peters, Cape Breton, Calgary, Edmonton, Yorkton and Winnipeg.

**The Western Fruit Market**

Owing to the many and varied reports which we have heard relative to dissatisfaction intimated by receivers of large consignments of fruit in the West, the editors of The Canadian Horticulturist drew up a comprehensive list of questions in order to find out the exact state of affairs from those at the consumers' end of the business who were able to give information at first hand.

We have heard a great deal of late about Ontario fruit in the West. The reports have been many and varied, yet in the main we have been able to deduce certain facts which should be of interest to all those desirous of cultivating the Western market. The general consensus of opinion seems to be that Ontario fruit is losing ground in the market of the North-West. All wholesale dealers tell us that it is not the inferior quality of Ontario fruit that is at fault, but rather the discrepancy in the mode and manner in which we pack. The fault is not so much the package itself as it is the contents of the package, the upper layers of which do not honestly represent the condition and size of the fruit contained in the lower layers of the package.

**EAST V. WEST**

A comparison of the quality of the fruit of British Columbia with that of the product grown in Ontario has often been made. The answers which we have received by those on the spot in regard to this particular point assure us that while British Columbia apples are generally of larger size and almost invariably of better color, they cannot compare favorably with Ontario fruit when flavor is considered.

We can, therefore, see that owing to the high-class nature of the Ontario apple the box is not too high-class a package for a product, which, if we consider everything, is quite as much entitled to be packed in boxes as is our Western fruit. Dealers in Calgary and Lethbridge indicate that a box with the dimensions of 10 1/2 x 11 1/2 x 10 seems most suitable to the trade at present. All the leading Ontario apple growers, these wholesale men in the West tell us, are gradually coming round to the box pack, barrels being on the decrease every year. The wholesale men do not believe it will be many years before the barrel will be a nonentity on the Western market. The fact of so many irresponsible packers in Ontario not giving an honest pack has no doubt served to expedite the disappearance of the barrel package. The formation of cooperative societies and the making use of disinterested packers has on the other hand distinctly increased and enhanced its condition.

A large association is able to so distribute the fruit over the various markets that there will be no glut in one place or famine in another.

**NEW AND RARE SEEDS**

Unique collection. Hundreds of varieties adapted for the Canadian climate. Perennial and perfectly hardy. Own saving. Catalog free.

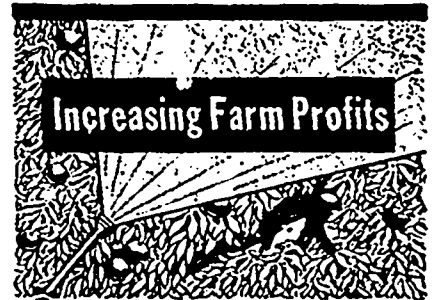
**Perry's Hardy Plant Farm**  
ENFIELD, MIDDLESEX, ENG.

**Apple Barrels**

**FOR SALE**

Reduced Prices on Carload Lots

**WM. MILLIGAN**  
HILLSDALE ONTARIO



Spray better if you would have better fruit—more profitable fruit. Statistics prove that well-sprayed trees produce 25 to 75 per cent more fruit and bring 25 per cent higher prices than unsprayed or poorly sprayed trees. Neglected and poorly sprayed trees mean small yields and stunted, rough and wormy fruit. Cheap, inefficient sprayers are an expensive nuisance.



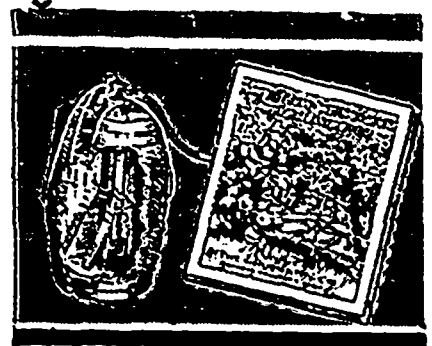
are the world's sprayer standard. They give the utmost satisfaction under the hardest conditions. Years of experience prove it. The Goolds way of spraying is easy. The pump works easy and evenly, the nozzles never clog but spread the solution properly. The agitators keep the solution well mixed and the materials used are chemical proof. Made in all types for hand or power at prices to suit everyone.

**Get the Facts**

"How to Spray—When to Spray—Which Sprayer to Use"

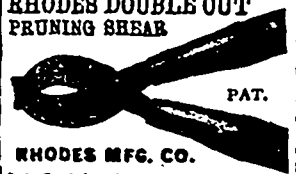
Every farmer, every fruit grower should have a copy of this great book. Brimful of just the things you want to know about spraying. Write for it today—it's free. Act now!

THE GOOLDS MFG. CO., 17 W. FALL ST., SENeca FALLS, N.Y.  
Largest Manufacturers of Pumps for Every Service





**RHODES DOUBLE OUT PRUNING SHEAR**



Cuts from both sides of limb and does not bruise the bark.  
We pay Express charges on all orders.  
Write for circular and prices.

**RHODES MFG. CO.**  
516 S. Division Ave. GRAND RAPIDS, MICH.

Special No. 25. Sent by Express for \$2.50

### A Collection of Six Desirable HOUSE PLANTS

Send us \$2.50 and we will forward by express, to your express office, this very choice collection of House Plants. We select these as the most desirable plants for you to buy, chosen from our large assortment; they are full grown plants, now in their flowering pots, healthy, thrifty and beautiful. Our regular selling price of these plants is \$4.00. To make a large number of sales we give this lot, an exceptional bargain, for \$2.50.

- 1 Chocoe House Fern, Ostrich Plume.
- 1 Chocoe House Fern, Bostonensis.
- 1 Splendid Kentia Palm.
- 1 Large Asparagus Fern.
- 1 Xmas Cherry (in fruit).
- 1 Fine Cyclamen.

Cultural directions for these plants will be found in our Catalog, which we mail free with this order.

### The Hay, Floral & Seed Co.

SEEDMEN AND FLORISTS  
BROCKVILLE - ONT.

### The Fruit Market Situation in British Columbia

Eric Kelse, Victoria, B. C.

At a time when the United States tariff is being discussed it may not be inopportune to scrutinize the international situation in so far as it concerns our fruit trade in British Columbia. That country last year found its favorite market the North-west, flooded with United States western fruit. That fruit was inferior in quality, and yet owing to its greater quantity it was permitted to rule the price in the North-West fruit market.

A comparison of the conditions existing in British Columbia with those prevalent in the western states shows that labor is higher in our province, that we have a smaller fruit area, hence less fruit, that the cost of our packing material, such as paper, nails, and so forth, is higher, and last, though not least, the manner in which the Canadian Fruit Sales Act affects us as compared with United States shippers.

On imported apples there is a duty of thirteen cents. This is said to just counter-balance the difference in the cost of labor. Labor has to pay its land toll. So long as land speculation is maintained on a fabulous basis so long will labor demand its necessary proportion, and so long will the spectre of monopoly maintain the districts in a sparsely populated condition. Other things being equal, the more thickly populated a country becomes the cheaper becomes the labor and the cheaper the production. Another thing we note is the higher cost in British Columbia of packing material, paper, nails, and so forth. The difference is more than the extra railway haul, due in large measure to the import duty? Why not remove this cumbersome obstacle? Why not give our fruit growers a

chance to compete on a square field with their neighbors, instead of protecting and pampering our paper manufacturers and nail makers, who should stand on their own feet, not on the feet of the fruit grower.

### FOR SALE AND WANTED

Advertisements in this department inserted at rate of 3 cents a word for each insertion, each figure, sign or single letter to count as one word, minimum cost, 30 cents, strictly cash in advance.

ALL KINDS OF FARMS—Fruit farms a specialty.  
—W. B. Calder, Grimsby.

WANTED—Comb. extracted Honey and Beeswax.  
R. N. Smeall, 95 Fourth Ave., Viauville, Montreal, Que.

NIAGARA DISTRICT FRUIT FARMS.—Before hiring it will pay you to consult me. I make a specialty of fruit and grain farms.—Melvin Gayman & Co., St Catharines.

RELIABLE HELP, SKILLED AND unskilled, supplied horticulturists and others. Canadian Employment Bureau, Proprietor member of B. G. A., London, England, 65% James St. South, Hamilton, Ont.

ASK DAWSON. He knows.  
IF YOU WANT to sell a farm consult me.  
IF YOU WANT to buy a farm consult me.  
I HAVE some of the best Fruit, Stock, Grain and Dairy Farms on my list at right prices.  
H. W. Dawson, 121 1/2 Colborne St. Toronto.

HONEY FOR SALE—Fine Clover in 10-lb. pails and 60-lb tins.—G. A. Deadman, Brussels, Ont.

SALMON ARM. Shusway Lake, B.O. has the finest fruit and dairy land in B.O. No irrigation necessary; mild winters, moderate summers no blizzards or high winds; delightful climate; enormous yields of fruit, vegetables and hay; good fishing; fine boating amidst the most beautiful scenery, and the Salmon Arm fruit has realized 25 cents per box more than other fruit in B.O. Prices of land moderate, and terms to suit. Apply to F. O. Haydock, Salmon Arm, B.O.

# Announcement

Of the utmost importance and interest to growers.

## PEDIGREED TOMATO SEED

Grown on Bow Park Farm, Brantford, Ont. 1,000 acres, largest seed farm in Canada.

Scientific methods after years improve, yield 100% and over. Earliness and Productiveness aimed at. We succeeded, and mark you—Grown in Canada.

Our system endorsed by eminent horticulturists as being unique and unexcelled in its thoroughness. Only a small quantity to offer as demand is already insistent.

'Tis early it is true for Tomato Seed, but it will never be too early to secure seed of such inherent merits.

Orders accepted subject to being unsold.

Varieties:

- Eschiana.....
- Chalk's Early Jewel.....
- Canners Early.....
- My Maryland.....
- Ronnie Best.....
- Greater Baltimore.....
- New Orleans.....
- Red Rock.....
- I.X.L.....

Prices:  
\$1.00 per oz.  
.60 per 1/4 oz.  
.35 per 1/8 oz.  
.75 per Package

Also to offer Canadian Grown Onion Seed, Yellow Globe Danvers; Market Gardeners please note, and Peas and Beans. Ask for price list.

Bow Park Farm, near Brantford

*Dominion Canners Seed and Experimental Farm*

**BOW PARK FARM, P.O., ONT.**

# Apple

## Refrigeration

Finest Frost-proof Refrigeration Plant in Central Ontario; stop-off privileges from all lines.

Write

### Trenton Cold Storage

TRENTON, ONT.