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DECEMBER, 1890.

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The  
Canadian

HORTICULTURIST.

HORTICULTURIST.

A JOURNAL DEVOTED TO FRUITS, FLOWERS, AND FORESTRY

EDITED BY L. WOOLVERTON, M.A.  
PUBLISHED BY

\* THE FRUIT GROWERS ASSOCIATION OF ONTARIO \*

Published at Toronto

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**FORESTRY.**

To the Editor of THE CANADIAN HORTICULTURIST.

SIR,—Perhaps, as your journal has taken  
considerable interest in the forestry move-  
ment, you will allow these lines admission  
to its columns:—

Some five or six years ago a great number  
of farmers and others, at my request, were  
good enough to send me letters describing the  
state of forestry in their neighborhood.

This spring, intending to examine the set-  
tled portions of Ontario, I visited several  
districts of the province, and found, I am  
glad to say, in many places, gratifying pro-  
gress made in tree-planting. I had meant to  
devote the whole summer to the work, but,  
unfortunately, I have been laid up for four  
months with illness, and am obliged again to  
ask the assistance of my Ontario correspond-  
ents in order to complete the forestry report  
I am now getting out.

I should, therefore, be very glad if any  
gentleman in your neighborhood would write  
me word as to the following points.

(1) Whether and to what extent lines of  
trees for wind-breaks or ornament are being  
planted, and how those planted are thriving.

(2) Whether plantations of young trees  
have been set out, and how they succeed.

(3) Whether cattle are fenced out of any  
portions of forest in your neighborhood, and  
how it answers.

(4) Any difference in climate, rainfall, drift-  
ing of snow, and so forth, you may have  
observed since the clearing of the country.

(5) What measures, if any, would be likely  
to improve the existing state of affairs.

Yours truly,

R. W. PHIPPS,

Address, 251½ Richmond St. West,

Toronto, Ont.

P.S.—The Forestry Report, for which these  
answers are asked, will be sent to all who reply.

Nov. 25, 1890.

**JAS. MURRAY & CO.**

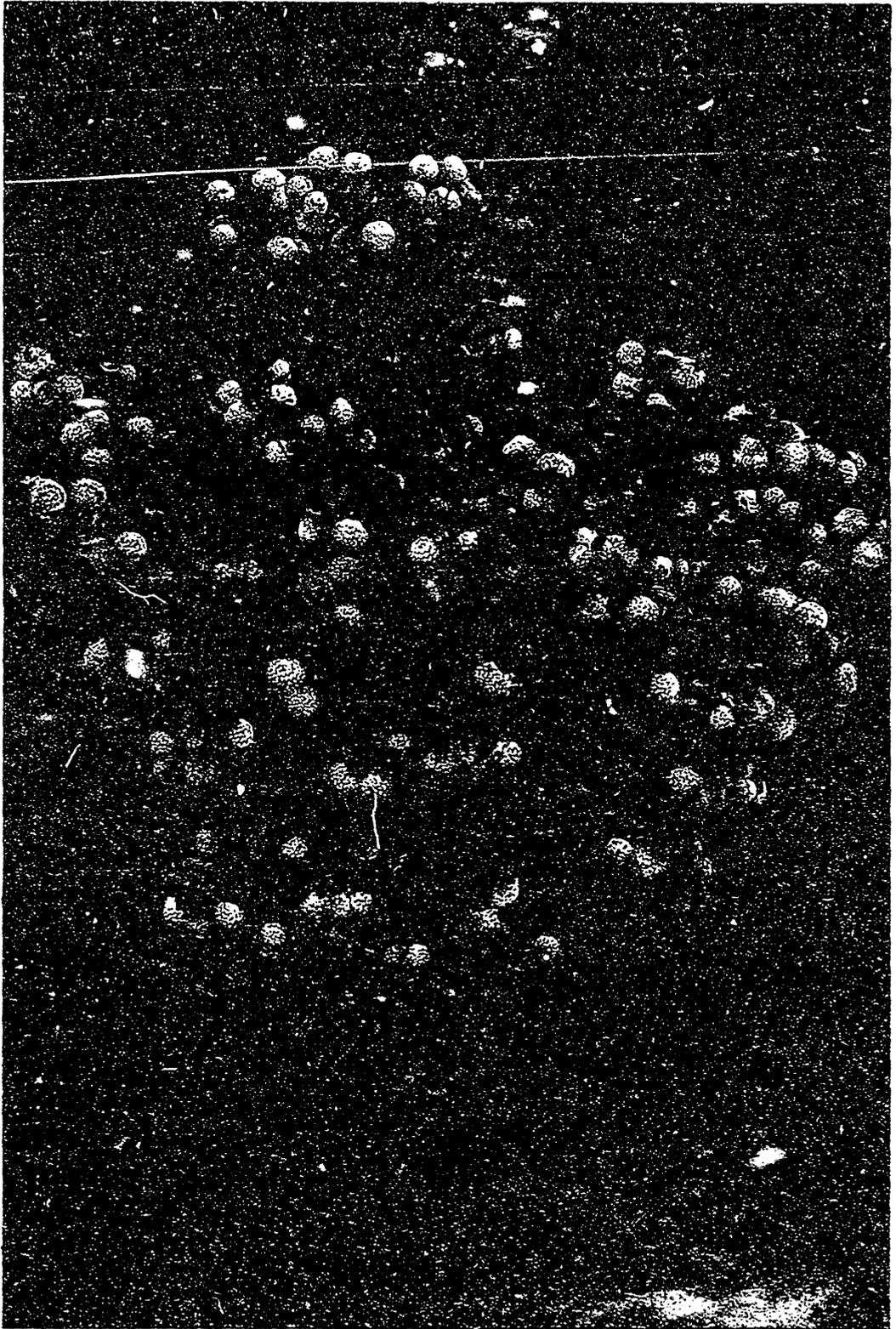
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THE SNOWBALL TREE.



TO many known as the Guelder Rose, this excellent flowering shrub has long held its place as one of the most desirable on the list. Of easy culture and great hardiness, it may be planted on almost any soil with assurance of success. Sometimes in rich soil it grows very rank, reaching a height of ten or twelve feet, and such a bush when covered with its fine, large, globular cymes of flowers, resembling snowballs, is, indeed, one of the prettiest of its season.

Botanically, the Snowball tree belongs to the honeysuckle family, to which we are also indebted for the climbing and bush honeysuckles, the Snowberry and the Elders, all of which are prized for ornamental purposes. It is known to students as *Viburnum opulis stirilis*, the latter word describing this special variety, of which the flowers are sterile. It comes to us from the gardens of Europe, but is really a form of our native *Viburnum opulus* or *Cranberry tree*. This latter is also a very ornamental, hardy shrub for Canadian lawns. In flower it is not conspicuous, but its bright, red berries hanging in clusters throughout the whole winter, make it a shrub that should be included in the smallest collection.

Besides these, we have five or six other native *Viburnums*, and amongst them is the Downy Arrow Wood (*V. Pubescens*), a low bush with showy

flowers and dark purple fruit, which grows in rocky places; and the Hobble bush, (*V. Lantanoides*), a straggling bush with handsome flowers, found in moist woods.

Our colored plate is an excellent representation of *V. opulus stirlis*, and will, we hope, influence many of our readers, in planting their lawns, to choose this as one of the shrubs for filling in appropriate spaces.

Our readers will notice that this frontispiece is done in a new process, combining the photograph and the chromo, and we hope, in this way, to be able to embellish our journal with some very beautiful pictures during the coming year.

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### CONDITIONS OF SUCCESS IN FRUIT GROWING.

THE question is frequently asked whether fruit growing is a profitable industry. The only correct answer is that it depends in some measure on circumstances, but mainly on the cultivator. Like the questions we often see discussed in the publications of the day, "is life worth living?" "is marriage a failure?" it is or is not, just as we make it.

A cause of much of the want of success in the growing of fruit is to be traced to the fact that it has been regarded as a secondary matter, the thought and care being given to other crops. Hence much of the fruit sent to market has been barely good, much more has been poor, and but very little truly perfect. This method needs to be reversed. Fruit growing should be the main thing, all else secondary and subsidiary. In short, the fruit grower should be in love with his work. As an eminent writer said of the successful rose grower, "he must have the tenderness, the thoughtfulness, the reverence, the watchfulness of love."

Love like this will lead him to a careful study of everything affecting his favorite pursuit. Soils are not all equally adapted to the growing of fruits; nor even to all varieties of the same fruit. The quality of the fruit is materially influenced by the character of the soil. Fertilizers are not judiciously used unless adapted to the accomplishment of the end desired. Some fertilizers tend specially to the increase of plant growth, others to affect the size and quality of the fruit. There are also insect foes and insect friends, the former to be destroyed, the latter to be preserved. This necessitates an acquaintance with both. These are but a part of the subjects requiring thoughtful attention, but they may suffice to show the exceeding breadth of the knowledge that the fruit grower must make tributary to his ends.

In the pruning and training will be found ample scope for the exercise of all the thoughtfulness and watchfulness of which he is possessed, and of a discerning judgment formed thereon. The habit of growth differs much in even different varieties of the same fruit. The amount of fruit that each can bring to perfection

will vary by reason of age and by reason of constitutional differences. These and other matters will be elements in the problem, each of which is to be carefully weighed.

The likes and dislikes of purchasers must be considered. As a rule the fruit that combines excellent flavor with an attractive appearance holds a commanding position in all markets. Many purchase fruits with reference to its quality as an ornament to the table as well as its ability to gratify the palate. Nor is the manner in which it is put up for market to be overlooked. A neat package enhances the appearance of beautiful fruit.

These things are sufficient to show that the successful fruit grower must have his heart in his work, and that the growing of fruit for market should never be secondary to some other business. Only perfect samples should satisfy the grower, and none other should be allowed to go to market. The poor fruit serves only to break the market, lessen the price obtainable for even superior fruit, and lessen the profits of the producer.

*St. Catharines, Ont.*

D. W. BEADLE.

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## WHAT I SAW AND HEARD IN A TWO WEEKS' VISIT IN OCTOBER AMONG PROMINENT STRAWBERRY GROWERS IN OHIO.

MY first stopping place was at Mr. M. Crawford's, where I received a very cordial welcome from his wife and himself. After dinner he took me through his garden where I saw the strawberry plants in perfection, from the best of the old varieties to the latest of the new. His gladiolus bed made a grand display, especially some of his own seedlings. He had two men every day digging and topping the bulbs. He expects to have one hundred bushels for sale.

On October 5th my good friend Crawford drove me over to Mr. F. B. Ferry's, near Hudson, Ohio, a well-known writer to the horticultural press of the United States, also author of "How to Grow Strawberries." He surmised the object of our visit, and at once took us to his garden.

We first came to his red and black raspberry bed, which showed good care and was well kept with a heavy mulch of straw, renewed every year. The half acre of strawberries we found in good order, with paths between the beds sixteen inches wide, and one of his men on his knees with a basket and trowel, thinning the plants in the beds until they stood about six inches apart. By this thinning he believes he gets as much fruit and larger berries than by letting the old and weak plants remain.

Mr. Ferry told me that from the half acre the cash sales were \$237. "We have had," he said, "a very large home market for berries. We certainly ate,

canned, jammed, and gave away \$50 worth, probably more, as some days I know by actual measurement that we ate three pecks!"

We might safely say that the total value of the crop at wholesale prices was \$287. No attempt was made to get the last dollar out of them, or the receipts might have been pushed up to \$300.

He said, "I have not figured up the exact yield in bushels, but it was over 100, or considerable above the rate of 200 bushels per acre. We sold to dealers only, or to families who wanted at least half a bushel." He fixed the price of his best selected berries at \$3.20 a bushel, and of the small ones for canning at \$2, and held it there without any regard to how low others were selling.

His largest picking in one day was about thirteen bushels, which sold for \$36.55. It took from four to six good pickers to keep right up. Mr. Ferry did the marketing; he examined all the berries himself and could recommend them.

The varieties Mr. Ferry grows are Sterling, Haverland and Bubach's No. 5. These are pistillate varieties, and to fertilize them he plants, in alternate rows, Jessie, Cumberland, Gandy and Downing. You will see all these varieties are large, beautiful berries, except the Downing, which no doubt he plants for its value as a fertilizer.

Mr. Ferry has two rows of Haverland, or about one-sixteenth of an acre in the two rows. He usually picks two bushels a day, all first-class berries, at \$3.20 per bush. This I know. Mr. Ferry says that the sixteenth of an acre brought him at the *rate of \$1,000 per acre!*

He said he took a sample of his large berries to an old dealer in the city, and he said, "You may talk of quality to the people to the end of the world, but every one will buy that which pleases the eye in preference to that which has excellence of quality."

*Granton, Ont.*

JOHN LITTLE.

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### GRAPES IN MUSKOKA.

**I**N answer to T. B., at your request (Question 84), in October HORTICULTURIST, I beg to say that in 1888, from the 18th of September to the 3rd of October, I gathered from my garden 183 lbs. of ripe grapes, all of which not used by my family were sold at an average of ten cents a pound. On the 5th of October, fearing frost, the balance of the fruit, ripe and unripe, was gathered, weighing, exclusive of the above, 240 lbs., total 432 lbs. This I consider a successful season.

I enclose a list by which T. B. can see when, in a good season, he might expect to pick ripe grapes in Muskoka; also another list showing the product of each of the principal vines at the final gathering, by which T. B. can see which sort gives the greatest weight.

*Grapes, ripe and unripe, picked for wine, showing the product of each vine, in addition to a share of the 183 pounds picked indiscriminately as the bunches ripened.*

DATE.	NAME OF VINE.	POUNDS OFF VINE.	DATE	NAME OF VINE.	POUNDS OFF VINE.
1888.			1888.		
Oct. 5	No. 2 Lindley.....	47	Oct. 5	No. 22 Salem.....	10½
"	" 4 " .....	34	"	F.G.A., old vine, Burnett..	11
"	" 6 " .....	34	"	Slips of F.G.A. 2 young " ..	16
"	" 11 Salem .....	10½	"	F.G.A., Eumelan.....	7½
"	" 12 " .....	7½	"	Mixed " .....	4
"	" 1&13 " .....	11	"	End of house, Burnett....	9
"	" 20 " .....	15	"	3 vines front of house, mixed	21
"	" 21 " .....	11		Total.....	249

*Time of gathering ripe grapes :*

Sept. 18th.....	1 lb.	Sept. 27th.....	25 lbs.
" 22nd.....	3 "	Oct. 1st.....	68 "
" 23rd.....	12 "	" 3rd.....	41 "
" 25th.....	27 "		
" 26th.....	6 "	Total.....	183 lbs.

The Lindley is my favorite, from its many good qualities; vine hardy, a very vigorous grower and good bearer; Salem, a little larger berry, higher flavor, but not so fruitful; Burnett, when fully ripe finest flavored grape in the garden, but rather shy in bearing; Moore's Early, first to ripen; Niagara, I have only fruited twice, appears rather late; Worden, my largest black; Moyer and Vergennes not yet fruited. Trusting some of these hints may be useful to T. B.

*Lake Rosseau, Muskoka.*

AMATEUR.

RATIONAL PRUNING OF THE RASPBERRY.

THE raspberry-plant is a sort of compromise between a perennial herb and a shrub. Its stems are woody, but instead of living on from year to year, and bearing an indefinite number of crops like the currant, it lives but about a year and a half, and, like a multitude of other plants, perishes after maturing its seed, while its roots live on indefinitely. Like many of the herbs, the stems make a very rapid growth until they have attained their normal stature, when, in common with their branches, they terminate in a cluster of flowers, followed in due time by the fruit. Such would be the case, at all events, but for the fact that winter usually intervenes before the normal growth is completed, and destroys the terminal bud, leaving the future growth to be made by the axillary buds that have not yet started into vegetation.

This explanation should give us a clue to a rational method of pruning the raspberry (and blackberry as well), which has long been a sort of

mystery to many growers of these delicious fruits. Why prune them at all? There are two reasons, one of which has already been suggested. Winter comes on, at least in our climate, before the growth is completed, and usually destroys more or less of the immature and succulent terminal parts. It is better to remove this destroyed portion, because if left it continues to absorb and transmit by evaporation the sap brought up by the living part of the cane, thus robbing in a measure the fruit and foliage. This pruning would naturally be done in the spring as soon as the buds begin to swell. Earlier than this it would be difficult to decide how much to remove; later, the dead portion would have already wrought a part of its mischief.

The other reason for pruning is suggested chiefly, if not wholly, by the convenience of culture. The canes of the black-cap raspberry (*Rubus occidentalis*) grow to such a length as to greatly interfere with cultivating the plants and gathering the fruit unless they are dwarfed in some way by treatment. By permitting them to grow to their full length, and then cutting them back to a convenient stature, we should remove one-half or more of the fruit buds, and thus materially reduce the crop. We must prune them in such a way that while we keep them down to a size that is convenient for working among them we also preserve the flower-buds. To accomplish this we pinch the terminal shoot at the height of two to two and a half feet. This causes the buds in the axils of the leaves to develop into branches, and instead of a single cane six or eight feet in length we have half a dozen branches two feet or less long.

To the beginner it appears almost absurd to pinch a raspberry cane at the height of two feet. It seems as if the cane has but just commenced to grow, and that to pinch it at that height will prevent it growing taller. But it should be remembered that there are several nodes at the top of the stem that have not attained their full length, and which will continue to elongate for some days after the tip has been removed. A cane pinched at two feet will attain an ultimate height of three feet, which is sufficient.

It has often been recommended to pinch the branches when they have attained the length of a foot from the main cane. The wisdom of this is quite doubtful, at least in regions of severe winters. The effect of it is to cause axillary buds upon the branches to develop into shoots, and this will take place so late in the season that they have not time to make much growth, and, being immature, they are liable to kill back badly during winter. The result is that the buds that should have remained dormant until spring to furnish the flowers for the crop, have been forced into growth in late summer, while the tender buds upon these immature shoots—all that are now left to furnish the crop—have either been killed outright or severely weakened by the winter. It is doubtless, in the majority of cases, better to let the branches from the main cane grow undisturbed until autumn, and then cut them back as far as seems desirable at the spring pruning.

The canes of the red raspberry (*Rubus strigosus*) do not attain such great length as those of the black-cap type, and so do not, as a rule, need pinching in summer. When vigorous growing varieties like the Cuthbert are planted in rich soil the canes sometimes attain an inconvenient height. In such cases they may be pinched like those of the black-caps, but the pinching will tend to stimulate the growth of suckers, an evil which needs no encouragement, because it is apt to be excessive in rich soils even without the pinching. It would probably be wiser to substitute a weaker growing variety, or else to remove the plantation to poorer soil.

The reasons given for pruning the black-cap type of raspberries will apply as well to the blackberry.—*E. S. Goff, in Garden and Forest.*

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#### PERFECT AND IMPERFECT STRAWBERRIES COMPARED.

THOSE varieties of strawberries that produce pollen and berries also are at a disadvantage as compared with those that produce berries only. Division of labor counts here as elsewhere. Give a plant nothing to do but to grow and bear fruit and the work will be better done than if an additional task is imposed. To produce pollen taxes the energies of the plant much more than is commonly supposed. Many growers think it would be desirable to have varieties with perfect blossoms only to save the trouble of planting the two classes. Theory disproves this plan, and careful observations show that, in general, the most prolific sorts are those that have imperfect flowers.

There is more truth in the above now than there was a generation ago, when the Wilson was in its prime.

It should be understood that these statements refer to the leading varieties that are most generally grown. There are some apparent exceptions even with these, and still more if all known varieties are included. Concerning the varieties that are worth considering, the general statements made above will hold good. These generalizations are not only useful in determining the value of varieties in a comparatively short time, but may also serve as guides in future work. Much valuable time has been lost because these principles have been ignored.—*Ohio Experimental Station.*

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#### WINTER WORK FOR THE HORTICULTURIST.

“LOOKING ahead a good way?” Yes; but is not that the way to keep things running smoothly and profitably? How many manufacturers could afford to “shut down” or discharge a large portion or all of their help on the advent of winter, and remain dormant until thawed out by April’s sun? But this is what too many horticulturists do. Hauling manure is one of the jobs that are nearly always in order. My own practice in most cases has

been to apply it directly to the land, spreading it from the wagon at all times ; my soil is level. Manure thus applied mulches the soil for several months and the rains of early spring incorporate the liquid portion more thoroughly with the soil. The disadvantages of the plan are an occasional slight loss of fertility, from rains when the ground is frozen, and the latter will not become dry enough for the plow quite as early as if no manure had been spread on it. If the manure is free from grass and weed seeds it may be used to mulch as well as fertilize the strawberry bed with grand results. Pruning of all plants except the grape had better be deferred until late winter or early spring, although the old raspberry and blackberry canes can be removed at any time during the winter ; but one should not cut back the bearing canes until just before the new growth starts, otherwise the spring winds will dry and injure the freshly cut, pithy canes.

A very important job for early winter is to secure all young fruit trees against damage from mice and rabbits. (By the way, ought not fruit growers to ask the repeal of the law prohibiting the hunting of rabbits with ferrets?) I have protected my trees cheaply and efficiently by banking. Just before the ground freezes make a smooth, conical mound of mellow soil eight or ten inches around the trunk of the tree. A carbolic acid preventive has always proved effective : with one ounce of carbolic acid (crude will answer) mix one gallon of strong soap-suds and dilute with three or four gallons of water ; apply with a swab to the trunk of the tree. Where carefully applied this has stood the severest tests without a failure, although I have never applied it oftener than once in the season. In a wet, open winter it would be safer to repeat the application about midwinter. Of course the horticulturist will secure a full supply of posts, stakes, crates, boxes, etc., for the approaching season and also select and order his trees, plants, seeds, etc., in good time. He should keep as many of his best men as he can find employment for, even if he has to spend a part of his own time in studying and planning or visiting his friends. He may find he has gained even in dollars and cents by so doing, besides the benefit conferred on the hired man and on himself in other ways. He must combine head-work with hand-work. Let him attend his farmers' institutes and county horticultural meetings. If there is none why not organize one?—*W. W. Farnsworth, in Rural New Yorker.*

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## STORING FRUITS.

### IMPORTANT POINTS TO BE OBSERVED IN PRESERVING FRUITS FOR WINTER USE.

**D**ECAY results from infection by the spores or germs of certain microscopic fungi. These spores are practically omnipresent in the atmosphere, and are deposited upon all objects indiscriminately. Where the conditions happen to be favorable, that is, where the proper amounts of heat and moisture are present, they germinate, producing decay.

A certain degree of heat destroys these spores. This is why our canned fruit is preserved. The can is sealed up while its contents are so hot as to destroy any spores of putrefactive fungi that may have chanced to fall into it while the can was being filled.

#### PRESERVATIVE PRECAUTIONS.

But how shall we preserve our fresh fruits? These we cannot heat, nor can we preserve them from infection. Long before they are gathered the spores of putrefaction are upon them, and if we wipe them ever so clean, they are liable to be again infected before they have time to leave our hands. We cannot prevent their final decay, but by the exercise of knowledge and judgment we can greatly prolong their sound condition. The correct understanding and application of a few general laws will prove of great practical value to all who handle fruit.

The stage of maturity of the fruit has much to do with its power to resist decay. Fruit in its last stage of ripeness furnishes upon its surface a favorable soil for putrefactive fungi, while that in a less mature condition exerts a certain degree of resistant power. Fruits should be gathered, therefore, before the last stage of ripeness, and placed under conditions that tend to retard the maturing process, that is, in a low temperature, which not only prevents their rapid ripening, but also greatly checks the development of the fungi of decay.

It is of the utmost importance that the skin of the fruit be unbroken. Nature's protection against decay is in most fruits a surface covered with a thin layer of vegetable wax. If we rupture this, the germs have free access to the moist and delicate tissues beneath, which have very little resistant power, and decay quickly results. The preventive in this case, as every one who gathers or packs fruit should know, is *careful handling*.

It is important that the surface of the fruit be kept dry, and this involves more care than many suppose. It is not always enough that the fruit be dry on the surface when gathered or when placed in the storage room.

#### A MATTER OF TEMPERATURE.

Will it remain dry? This is a question that does not always occur to the fruit man, and because he does not understand the principles involved, his fruit often fails to keep. Much depends upon the relative temperature of the fruit, and of the atmosphere of the storage room at the time the fruit is placed in storage. Suppose a package of warm fruit from the orchard or berry field, where the temperature is 80°, be placed in a cool storage room with a temperature of 45°, what results? A knowledge of the laws of the deposition of dew will tell us that as the fruit cools down to the temperature of the room, the moisture contained in the air between the fruits is likely to become condensed and deposited in a thin layer over the surface of the fruit. This is sure to be the case whenever the temperature of the storage room is below the "dew-points" of the external air at the

time. Thus the fruit, however dry its surface may be when placed in storage, is likely to become moistened all over within an hour afterward.

On the other hand, suppose the orchardist stores his apples in an outbuilding until they become so cold that he fears they may freeze before removing them to his cellar, as he is often advised to do. Obviously, the moment the apples come in contact with the warmer and usually moister air of the cellar, a layer of moisture is condensed upon them, and his fruit, though dry enough in the outbuilding, is damp in the cellar.

#### MELLOW AND MOIST.

This is one reason why fruit taken out of cold storage often decays so promptly. The maturing process has been going on slowly and almost imperceptibly, and the fruit, though entirely sound, is at that condition that invites decay. On being brought from an atmosphere little above the freezing point into the temperature of the market, it is soon moistened all over by condensed water, which supplies the only lacking condition of putrefaction, and decay results almost as if by magic.

A state of dampness is more favorable to decay than one of positive wetness. The housekeeper knows that her clothes are more likely to mildew when they are moist than when they are under water, and every farmer knows that wood kept constantly water-soaked will last much longer than that which is kept in a damp state. So fruit that is so placed that it is kept constantly wet will often keep better than that which is stored in a comparatively dry atmosphere. The practical question is raised, how shall we handle our fruit so as to prevent it from becoming moistened by condensed water? It is not always easy to do this, where we use a cool cellar or storage room, but by taking proper precautions it is generally possible. (1) Gather and pack the fruit, so far as possible, at a time when the atmosphere is dry and cool. (2) Have the fruit as nearly as possible of the temperature of the cellar or storage room at the time it is deposited in it. (3) Keep the cellar or storage room as nearly as possible at a uniform temperature, and always as dry as possible.

The first precaution cannot always be observed. As a hint in observing the second, it is well to store the fruit temporarily in a cool, airy place, as the north side of an outbuilding, until a cool night comes, and then place it in the store room in the morning before the sun has time to warm up the packages. For the third precaution, avoid ventilating the cellar or store room at a time when the outer atmosphere is moist, or when its temperature is much different from that within.—E. S. GOFF, *University of Wisconsin*.


 New ◦ ◦ ◦ Little ◦ Known ◦ Fruits 

THE ONTARIO APPLE :—

SIR,—I have extolled the Ontario as a thrifty grower, early and annual bearer, of fine, large symmetrical, long-keeping apple. The crop on a tree which I gave to a friend in 1880 was gathered yesterday, two barrels and a bushel of very large, finely colored, handsome fruit. It was a great satisfaction to me, confirming my own estimate of it, to see it so highly rated in the January HORTICULTURIST, receiving a value of 39 in a possible 40, higher than any other winter apple, the nearest being Spy and King, 38 each. I should not rate the Ontario so highly here for dessert.—CHARLES E. BROWN, *Yarmouth, N.S.*

SAMPLE APPLES FROM NOVA SCOTIA.—Mr. S. H. Purdy, of Greenville, N.S., sends three sample apples, numbered 1, 2 and 3, asking for names and opinion of size and quality. No. 1 was decayed past identification: No. 2 is a *Haas*, and rather under size. It is a fine fall apple, especially at the north, where its hardiness makes it most desirable. It is at its best in November. No. 3 may be a poorly colored sample of the Bethel of Vermont, for which Mr. Purdy says he planted the tree.

SEEDLING PEARS :—

SIR,—I send you sample pears which are supposed to be seedlings of this place, as the tree was found when about four feet high growing among weeds and brush by the side of a railway. The tree is perfectly healthy.—THOS. BEALL, *Lindsay, Ont.*

These samples were in an over-ripe condition, so that it is impossible to give an accurate description of them. They have remarkable stems, two inches in length, a golden-colored skin with a blushed cheek, and fine grained flesh. They are apparently of good quality. Size below medium. Season, September.

JOHNSON'S SEEDLING APPLE :—

SIR,—I mail you an apple raised at L'Original. The tree is hardy and bears pretty good crops.—CHARLES HARDISTY, *Clarence, Ont.*

This might be a desirable fall cooking apple for the north. Description—Size, medium; form, regular, roundish; stem set in a small contracted cavity; calyx partially closed in a shallow-plated basin; skin, clean bright yellow with a handsome blushed cheek, and sprinkled with numerous small, dark-brown dots; flesh tender, juicy, with a rich aromatic flavor, somewhat resembling that of the Fall Pippin. Very good. Season, November.

WILLSON'S SEEDLING APPLE :

SIR,—I send you samples of a seedling apple from a tree growing by the kitchen door in Mr. B. Willson's yard, Wingham. It has grown up from seed accidentally dropped some twelve years ago. The tree has a rather compact, bushy head, and is apparently a healthy, vigorous grower. It bore three or four apples last year for the first time. It is well worth your notice.—J. A. MORTON, *Wingham.*

This is a magnificent fall apple. Its great size and fine color would make it a

profitable apple for putting up in small cases for a special export trade, providing it bears out its present promise. It may be described as follows :

Size, very large ; form, conical ; skin, yellowish, spattered and shaded with very bright red on the sunny side ; stem, set in a moderately deep, even basin ; flesh, yellowish white, somewhat inclined to water core, tender and of a pleasant flavor. A good cooking apple. Season, October.

#### SEEDLING APPLES :—

SIR,—I send you some seedling apples grown in this vicinity :—No. 1 is a seedling of fall pippin. Fruited the eighth year. Came into full bearing the third year after. It fruits every year. Is a good cooker and keeps until May or June. Becomes a very bright yellow in the winter. No. 2 bears very early and heavily. A good cooker and keeps till February. No. 3 came into bearing early. Bears a good crop every year. Keeps till February. No. 4 bore fruit crop sixth year from seed. Keeps all winter, becoming yellow.—THOS. BEALL, *Lindsay*.

None of these apples seem to call for a description, unless possibly No. 1. Nos. 2, 3 and 4 are only suitable for cooking, and for this No. 4 is too small, and 2 and 3 are inferior to varieties already in cultivation.

No. 1 is under medium size, conical, with bright, clean golden-colored skin, stem slender, half-inch in length, set in a deep, narrow cavity, calyx closed in a medium sized wrinkled basin, flesh creamy white of good quality and pleasant aromatic flavor. Probably a good winter dessert apple.

THAT WEAVER PLUM.—In your August number I advised my northern friends to try one Weaver plum at least—stating that it had fruited with me last year for the first and it was the first “meaty greenish plum” that I had been able to grow. I had only three specimens last season which grew inside, near the ground and in a very shady place. This season I had them on the tree in more exposed positions, and to my great surprise they were almost red in color, owing to the action of the sun and light. I then looked it up in Elwanger and Barry's Catalogue, and see that it is classed as a *red plum*. Nevertheless it is of an entirely different character from an ordinary red plum, being superior to the old varieties grown here in every way. It is not entirely red, is firm and meaty in flesh, and of excellent quality. I still advise my northern friends to try a tree.

*Renfrew.*

A. A. WRIGHT.

McMILLAN'S SEEDLING APPLE.—This apple, sent us by Mr. J. P. Cockburn, Gravenhurst, originated in the county of Stormont, latitude nearly 46, and is the product of a seedling tree twenty years planted. It evidently has the merit of hardiness, and it is for a list of hardy apples that we can commend that we are at present looking. It is a fine looking fall apple, and would be an ornament to any table for the dessert dish. One great point in its favor, for these days, is that it does not appear to have the least tendency to spot, a grievous fault with many of our otherwise excellent dessert apples. The apple may be described as follows ; Size, medium ; form, oblong ; skin, yellowish white, almost completely blotched and dashed with bright red, much deeper on the sunny side ; stem, slender, three-

quarters of an inch in length, set in a deep, narrow cavity; calyx closed in a very small, wrinkled basin; core open and seeds free; flesh, white tinged with pink, prominently marked toward the apex, tender, mellow, fine grained, not very juicy, with a good flavor, somewhat of the Fameuse character; season, October Promising.

HARDY APPLES FOR THE COLD NORTH.—Dr. Hoskins, of Newport, Vermont, very kindly sends us samples of the *Bethel* (of Vermont), *Scott's Winter*, *Iowa Russet*, and the *McMahon's White*. We have only a remark or two to make on these apples, as they are known varieties.

The *BETHEL* is a strikingly beautiful apple, of fine large size, even form, and mostly covered with dark red, and blotches of very dark red. It was recommended by Dr. Hoskins on page 220 of Volume XI. as one of the best winter apples for the cold north. If this is an average sample, we shall want no Russians to cover its season. *SCOTT'S WINTER*, another of the list of winter apples recommended for the cold north, is somewhat similar in general appearance to the last, but much smaller, being below medium. The experience of some of our Quebec fruit growers is highly favorable to this apple. The *IOWA RUSSET* has not so much in the way of beauty to commend it, being a dull green color, partially russeted; but it is a large apple, and might be profitable. *MCMAHON'S WHITE*, one of the *fall* varieties recommended for the cold north, is a fine large, yellowish apple, which would market well. It originated in Wisconsin, where it has stood a temperature of 40° below zero, and is spoken of as being head and shoulders above any other apple. It usually has a red cheek, which adds much to its good appearance.

THE *ARKANSAS BEAUTY* is the name of a fine new apple shown at the meeting of the American Pomological Society in Boston in 1887. It is a large crimson-colored winter apple of much promise.

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THE *BRIGDON PEACH*.—This peach originated in Cayuga county, N.Y., and is being grown quite extensively on the shores of Seneca lake. It gave a very remunerative crop last season. The tree is hardy and the fruit large, remarkably handsome and more productive than the *Early Crawford*. The foliage is large, green, glossy and peculiar. The flesh of the fruit is yellow, very rich and juicy, with a pleasant flavor; color of fruit, deep orange-red, becoming dark red on the exposed side. It is attractive and has been universally admired wherever exhibited and has taken the first premium at the Cayuga County Fair for three years. Its season is the middle of September and it is a freestone.—*PROF. CHURCHILL, N.Y., Experimental Station.*

## \* Flowers \*

## BERRY-BEARING PLANTS FOR FALL DECORATIVE PURPOSES.



R. ROBERT VERTEL, of Connecticut, in reply to a query as to the best berry-bearing plants for fall decorative purposes, gave the following list:—

*Ardisia crenata*, a charming house plant that should be more generally cultivated. The plants usually fruit when one year old, bearing clusters of brilliant scarlet berries during the winter. These remain for a long time, presenting an elegant appearance. The flowers are small and white. Light fibrous loam containing peat and sand should be given them, also good drainage. Propagate from seed.

*Ampelopsis tricolor* is a splendid basket plant, having leaves variegated with white, pink and green. During the fall it is covered with bluish purple berries, which add greatly to its beauty.

Among the Peppers are several of the finest plants for decorative purposes. *Capsicum Little Gem* is a very dwarf variety, covered with small erect scarlet pods. *Prince of Wales* fruits very freely, bearing drooping, bright yellow pods. Perhaps the best, however, is *Celestial*, as it may be had for the holidays, and it is extremely ornamental when covered with upright pods, which are of all shades of green, yellow and red, being borne very profusely.

Bittersweet (*Celastrus scandens*) is a well-known climbing plant, that can be made useful in many situations, being very hardy. In the fall and during the winter, when full of its brilliant orange and scarlet fruit, it is exceedingly handsome. The berries can be used for many decorative purposes, as they do not drop for a long time after being gathered.

The Burning Bush (*Euonymus Americanus*) is a handsome shrub, having somewhat inconspicuous purplish flowers, and bearing a very showy scarlet fruit for some time, rendering it thus of much value for decorating.

Of the Holly (*Ilex*) there are many species and varieties which are very desirable for ornamental purposes, as may be readily understood when the immense quantities that are used for the holidays are recalled.

Mistletoe (*Viscum*) is of value only because of association with special occasions, there being but little beauty about it.

Jerusalem Cherry (*Solanum pseudo-capsicum*) produces a large crop of scarlet cherry-like fruit from early in the fall until after the holidays. One-year-old, seed-

grown plants are more fruitful than older ones, or when grown from cuttings. Sow in the spring for fall bloom, grown in fair-sized pots in the summer, housing them in September. The soil may be of any kind that is fairly good.—*From Proceedings of Society of American Florists.*

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### PLANTING POND LILIES.

SIR :—I will describe to you briefly my method of planting these lilies. Take an oil cask, cut it in two in the middle, place six or eight inches of clay loam in the bottom and two or three inches of lighter muck, or mud, on top of this. Plant the roots firmly, leaving the buds partially exposed. Set the tub in the centre of the lawn where it can get plenty of sun, with the top about three inches below the surface of the ground, sloping the turf so as to just cover the tub. Then fill up with water. I throw in two or three inches of leaves to form protection something like that which nature gives, then before it freezes hard cover with boards and straw.

My plan would be to make a box larger than the top, eight or ten inches deep, paint it, fill with straw and invert it over the cover of the tub so that it would not be unsightly. Uncover early in the spring, and the leaves will naturally start and the lilies begin to flower in the month of June. I usually plant six or eight buds of the *Nymphaea Odorata*.

South Haven, Mich., Nov. 1890.

L. B. RICE.

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### A ROSARY.

SIR,—I am desirous of obtaining some information as to the laying out of a rose garden. Can you make any suggestions or refer me to any work upon the subject, giving illustrations?  
—W. R. WADSWORTH, *London, Ont.*

YOU can get some information upon this subject from H. B. Ellwanger's book on "The Rose," also from Shirly Hibbard's work entitled "The Amateur's Rose Book."

In the first place, in having a rosary, it is important to carefully choose the location. It should not be in a prominent part of the grounds, but partially concealed, both from the windows of the house and from the approach, because at certain seasons of the year there is nothing attractive about a collection of ill-shaped bushes having neither foliage nor leaves. If a very elaborate rosary is to be formed, it should be enclosed all around with a hedge of Arbor Vitæ, Barberry or some other shrubbery, which will give them ample protection. Such a rosary is described in Mr. Hibbard's work, having a large summer-house in the centre, around which the various rose-beds circle with numerous walks between, and

covering an acre of ground. There are very few in Canada who would think of laying out a rosary on such a grand scale as this; indeed, for the amateur rose grower, the simpler the plan the better. A simple style, well adapted to the ordinary gardens, is to lay out two broad borders, one on either side of a gravel or a close shaven grass walk. These borders may vary in width according to taste, but, in planting, care should be had that the dwarf-growing varieties are planted nearest to the centre walk and the taller kinds should be placed towards the outside. In this way the bloom will be shown off to a greater advantage.

It is very important to avoid planting roses under the shade of trees. They need a warm, sunny exposure. Almost any good garden soil, free from standing water, will answer the purpose. If much clay be present, coal ashes, leached wood ashes, lime or sawdust may be added; if too sandy, clay muck or leaf mould will give it consistency.

In buying plants, do not be tempted with small greenhouse slips of a few weeks' growth, but rather spend a little more in purchasing plants one or two years of age. They should be planted at a distance of from one to three feet apart, according to the size they may be expected ultimately to attain.

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### THE DAISY AS A WINDOW PLANT.

WHETHER generally known or not, the fact remains, that this dainty flower is one of the best of all plants for window culture, producing its pretty blossoms in great profusion for months in succession. It is well adapted to those rooms which have a temperature of from 40 to 60 degrees, and will endure a heavy frost, although, of course, with disastrous results, as it takes quite a time to recover from the effect of such rough usage. Many people have chambers heated only by a pipe passing through them, which, while it modifies the intense cold, does not render the apartments warm enough for the average house plant, such as the geranium, etc. To such individuals, if fond of house plants, the English daisy would prove a veritable treasure, since a very slight degree of heat enables it to produce its blossoms, which long remain perfect in a cool atmosphere. A box measuring about six by thirty-five inches, and perhaps four or five inches in depth, containing daisy plants, was kept winter before last in a room heated by a pipe passing through a small wheel register over a coal stove in the room below. Just after Easter I counted, if my memory is not treacherous, on the plants in this box about eighty buds and flowers. The same box filled with daisies last fall and kept in a warmer atmosphere was by the middle of December in full bloom, and investigation again revealed, oddly enough, the same number of flowers—eighty.—*Vick's Magazine.*

## Forestry

### THE WHITE POPLAR AND ITS USES.

THE wood of *Populus alba* is white, soft, light and very tough ; it is used for bent ware, and made into various kinds of hoops for tubs, pails and ships' masts, etc. ; the timber is sawn into boards and strips from three-eighths to five-eighths of an inch thick ; it is then steeped and steamed to admit of its being bent with ease and without splitting. It is also made into corn shovels, bottoms of tubs, pails, corn and other measures, and also used in cheap cabinet work. I ought also to add that it is used extensively for railway carriage break blocks, on account, I suppose, of the non-combustible character of its wood, which will bear almost any amount of friction without igniting ; and, moreover, it is very durable under friction. As a timber tree it is classed amongst inferior kinds, but it is the best of all the Poplars ; at least, in some parts of the country it is preferred to any other kind. It is worth from 1s. to 1s. 6d. per foot, but the timber must be sound, clean and of large dimensions to realise this price ; smaller-sized and ordinary quality trees sell at from 10d. to 1s. per foot. The Black Italian Poplar (*P. monilifera*) is used for similar purposes as the White Poplar or Abele, as it is also popularly called ; it is, however, a coarser tree with a more branching habit, and, as a rule, it does not cut up so clean and free from small knots as the latter, neither is its wood so white. It is not in such request for bent ware as the Abele, and, in consequence, it is hardly worth so much per foot in the market. Both these Poplars are extremely fast growers in moist heavy land. The White Poplar exhibits a highly ornamental aspect in the landscape, particularly in spring, when the foliage is unfolding its whiteness, presenting a striking and pleasing contrast when associated with darker-foliaged trees. It is also a most distinct and effective tree, owing to the whiteness and smoothness of its stem, exhibiting a glittering appearance, particularly during sunshine, when its bark looks almost as bright as polished silver. The name White Poplar is applied to it on account of the white and woolly under-surface of the leaves ; its bark, too, except when old, is white and very smooth. It is probably indigenous in Eastern and Southern England, readily propagating itself by means of seeds and suckers.

—O. in *The Garden*

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### ERRORS IN GROUPING.

AT least one person in three of those who plant trees in groups or belts for ornamental purposes commit errors in consequence of not taking "one long look ahead." Probably, in many instances, mistakes are made in consequence of the ignorance of the persons directing the planting of the trees, as

they judge of the future size from the specimens in hand, the largest being selected for centres of groups or back-grounds of belts. A few years, however, are only required to develop and show errors, and the tall, slim Arbor-vitæ or Irish Juniper of to-day is soon over-topped by the stocky Norway or Hemlock Spruce. Planting ornamental trees is a work requiring some forethought, as it is not altogether for the present immediate effect that it is done, but for time far distant, and one needs to have the future form, size, and general appearance of the trees in his mind's eye at the beginning, if he would avoid making blunders that never can be corrected. It requires a practical and intimate acquaintance with all the trees used in forming groups, not only as they appear in their native forests, but when cultivated, for some show the effects of culture differently from others.—F.

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### THE SWEET CHESTNUT.

SIR :—Seeing an article on the Sweet Chestnut in October issue, the following may be interesting: “Rows of American Sweet Chestnuts one-year seedlings, set out in nursery rows fall of 1882 were thinned out, some in 1884 and 1885, but left quite thick, now touching each other in places. In the fall of 1886 good specimens of fruit were picked and in the fall of 1887 the trees were loaded. Trees have been cultivated more or less each year, no fertilizer, aside from common application. Spanish Chestnut, ten years planted, produces burrs but does not bring any fruit to perfection, owing to need of other tree or trees to fertilize the blossoms.

*Rochester, N. Y.*

HAS. A. GREEN.

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## \* The Vegetable Garden \*

### THE CABBAGE APHIS.

NEXT to the cabbage worm, the worst insect enemy of the cabbage, is the aphis, or plant-louse, which is so often found upon the leaves and in the heads in great numbers. This is a small, bluish-white insect, that subsists upon the sap of the plant, and multiplies with great rapidity. Like most of the peculiar family to which it belongs, this insect has the power, not common among insects, of bringing forth living young, but with most of those that have been carefully studied there is in the fall a sexual generation by which the true eggs are laid, and in this egg state most of them pass the winter. But although the cabbage aphis has been known both in Europe and America for more than a century, the sexual generation has never heretofore been found, and entomologists did not know where or when the eggs were laid, nor how the insect passed the winter. Recent

investigations, however, carried on at the Ohio Experiment station by Dr. C. M. Weed, have shown conclusively that the sexual generation develop late in autumn on the cabbage, and that the eggs are laid on the cabbage leaves. The true male is a small winged creature, with a more slender body than the other winged forms. The egg-laying female has no wings, and is pale green in color.

The discovery of the fact that the insect passes the winter in the egg state on the cabbage leaves has an important economic bearing. It suggests, as one of the best ways of preventing the injuries of this pest, the destruction during winter of the old cabbage leaves with the eggs upon them, instead of leaving them undisturbed until spring, as is too often done.

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### STORING CABBAGE FOR WINTER.

A CORRESPONDENT of the *Country Gentleman* says: Every one thinks he can bury cabbages, and a good many of them are "buried" without any formality about it. Now, like everything else, there is a wrong and a right way of doing this. Cabbages, carefully stored, will not lose anything, and often gain much by being attended to in a proper manner. I prefer pulling and storing on the same day. The general practice is to pull, turn over with roots up and allow them time to "dry" before storing. Now a cabbage, if it lies a day in a bright sun with the roots up, loses considerable of its moisture by evaporation, leaving it in a wilted condition, and if kept long in this state is unfit for use. By pulling on a dry day, about the second week in November, and storing at once, they have not had enough of frost to injure them, nor are they allowed to get dry and lose their succulent condition.

When pulling them, all hard heads are selected and kept by themselves, to be packed in trenches with the leaves carefully tucked around them, and roots up, using for a covering finely pulverized soil packed closely around the heads. If the weather is warm at the time, only about an inch or two is put on, and more added as the severity of the weather demands more protection.

The loose heads are kept by themselves, and buried with roots down and heads up; in this condition they gain in solidity if not in size. They must never be allowed to get very dry, or have much of the soil shaken from the roots when planted. It takes a good deep furrow to get them suitably set in, with roots down, but it can mostly be done with the plow. Much of the covering can also be done by bringing the soil up against the plants with the plow, and then shovelling it around them as compactly as possible. If packed firmly they keep better and mice are less likely to injure them by burrowing around and cutting them. In order to get at them during winter, a covering of leaves or any rough material which will keep out the frost is necessary. When selecting a place to store cabbages, it is necessary to have ground where water does not stand, but passes off freely and quickly; stagnant water soon rots them, and they will not remain long in good condition where they are not kept dry.



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

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

In explanation of the smaller size of this number, we desire to say that the additional pages will be given our readers in the January issue in the form of a complete index to this volume. This will, we trust, be found of great value, and will encourage the preservation of every number for binding at the end of each year. It is the only repository of information on Canadian Horticulture, and with the aid of our numerous correspondents, we hope to make each volume of greater practical value than the one preceding it.

THE ANNUAL AND WINTER MEETING of our Association has been fixed to begin on Tuesday evening, the 16th of December next, in the City Hall, Hamilton. That evening will be devoted to the hearing of the President's address, the election of officers, reports of committees and social conversation. The discussions upon the topics will be continued during Wednesday and Thursday, and will, no doubt, draw a large attendance, especially from the Niagara district. Everything favors a pleasant and profitable occasion. The city has given us the use of the finest city hall in Ontario; some members of the Ontario Government have signified their intention of paying us a visit; many of our best practical fruit growers are to take part with us, and, for many other reasons, we urge upon all readers of this notice to be in attendance, as far as circumstances will permit.

#### TAKE CARE OF THE WILD FLOWERS.

We have received a pamphlet from Mr. Chas. S. Horn, Secretary of The American

Wild Flower Club, Wilmington, Delaware, which we commend to all lovers of wild flowers in Ontario. It will be sent free to applicants who enclose a one cent stamp. It contains articles ably advocating attention to the preservation of our lovely wild flowers from the destruction which is now rapidly overtaking them, owing to the lack of appreciation of them by the general public. It aims at remedying this evil by stirring up local clubs in every part of the country who will receive and distribute literature upon the subject, hold local meetings where reports will be read on the local flora, and have addresses given upon the value and the beauty of our wild flowers and flowering shrubs, and thus, by every means possible, try to stir up a public sentiment in this direction.

To look upon many of our public roads, one would think that the inhabitants of our land were indeed utterly deficient in taste; for Ragweed, Canada thistle, Burdock and Mayweed grow rampant on every hand, and make the walks and borders present one continuous eyesore to the passer by. At times, it is true, there is a spasmodic effort made to tidy up, and the farmers turn out to do their road work by plowing up the borders and by making the whole as ugly as possible. Accustomed to destroy every shrub on the farm, even in the fence corners, what else is to be done on the road; and in consequence the Sweet Briar, the Golden Rod, the Elderberry and the Sumac, all alike fall victims to their ill-will. Shrubs which, if left to grow, would be an ornament to the highway.

There is no reason why our road sides,

especially where the barbarous custom of allowing cattle to run at large has been done away with, should not be one continuous park, with the borders growing up with a great variety of beautiful native trees and shrubs, among which our native wild flowers might be encouraged to grow.

#### SPRAYING FOR CURCULIO.

DR. CLARENCE WEED, of Ohio, has, during the last season, been making further experiments with Paris green for the curculio, and he is satisfied that it is a more complete preventive of injury than jarring the trees. He experimented upon an orchard of some 900 trees, jarring the trees in one-half the orchard in the usual way, and spraying the other half with poison, in the proportion of four ounces to fifty gallons of water. The first application was made immediately after the blossoms fell, and, on account of successive rains, repeated three or four times. On examination, in the month of July, not over three per cent. of the sprayed fruit was stung, while about four per cent of the fruit on the jarred trees was injured. A heavy crop of plums was harvested on both parts of the orchard, but the spraying was much less expensive than the jarring, and more effective.

#### SPRAYING FOR LEAF BLIGHT OF THE PEAR.

B. D. H., in the *Garden and Forest*, says that a large pear orchard, of 1,200 trees, was sprayed early in the season with carbonate of copper, and, as a result, the trees did not drop the foliage as many other trees did which were not sprayed, and the quality of the fruit was so much superior that the owner secured an unbroken list of first premiums at the state fair. We hope our readers will give this fungicide a thorough trial next spring, beginning very early, even before the blos-

soming period, with the first application, in order that the results may be clearly proved to the satisfaction of all. The writer has applied the copper carbonate both in suspension and dissolved in ammonia; on Flemish Beauty pear trees, Northern Spy apple trees and Bartlett pear trees, but not until the fruit was nearly the size of hickory nuts; and this was not a fair test. Still the results seemed to show in favor of those trees that were so treated, both in the brightness of the foliage and in the clearness of the fruit. We sincerely hope that it will prove a complete remedy for apple scab and leaf blight, the two most serious discouragements which the Canadian fruit grower has now to face.

#### NAMING COUNTRY ROADS.

IN Contra Costa county, California, a plan has been adopted for numbering country houses. It is called the "ten block system" and was originated by Mr. A. L. Bancroft, who has sent us a full account of it. The plan contemplates the division of every mile of roadway into ten equal parts, each of these divisions to be numbered, and every house is to bear the number of the block in which it is situated. If there are more than one house in a block these are distinguished by letters. The roads are to have names, tastefully painted upon guide boards, and thus a traveller will be materially helped in finding a house to which he has been directed.

The idea of naming all our public roads with suitable names painted on guide posts at the cross roads is surely most commendable, and this much might easily be carried out, even if our authorities are not prepared to follow out the plan in its details. Then, if every homestead were named by the owner, and the name placed at some prominent corner, the interest of a drive through the country would be much heightened, and great convenience afforded to strangers.

Open Letters

#### THE GOVERNOR WOOD CHERRY.

SIR,—I see in the July number of the *HORTICULTURIST* a print of the Governor Wood cherry, and you speak of it as a profitable variety. I find it an excellent cherry, but we can't keep off the cherry birds or waxwings as some call them. They come on here in flocks as soon as the fruit begin to color, about half its size, so that it is almost impossible to get a good cherry to eat. You

surely must not be troubled much with the pest at Maplehurst, or what method do you take to preserve the fruit from their ravages? We may keep on shooting them, in a short time after they are as thick as ever. They are so bold they will actually come and pick the cherries on the same trees with us. I find the Rockport Biggareau a very fine, solid cherry, and at the time of their ripening we are not troubled with the birds.—W. HICK, *Goderich, Ont.*

## THE PEAR BLIGHT.

STR,—Alas! alas! The pear blight has been very bad this season. I have a lot of trees badly affected that never showed it the least before. The Beurre-Gifford that was always free from it before was very bad, the Clapp's Favorite was worse than any others, black all over, in fact, nearly every variety

I have was affected more or less, even the Bartlett. I found the Doyenne Bussock tolerably free, also the Duchess. The pears acted just like the apples, plenty of blossom but very little fruit.

We had a very good crop of raspberries and gooseberries, a fair crop of currants and grapes, also a fair crop of cherries and plums.—W. Hick, *Godrich, Ont.*

\* Our • Book • Table • \*  



## PUBLIC SCHOOL AGRICULTURE.

*The First Principles of Agriculture*, by Jas. Mills, President, and Thos. Shaw, Professor of Agriculture, Ontario Agricultural College, Guelph, Ont. Published by The J. E. Bryant Publishing Co, Toronto.

That a book covering the ground above described is sadly needed in Ontario, we think no rational person will deny. Why young men, going into other lines of life, should have so much more training for their work than farmers, has been for a long time an unsolved problem. This work has been undertaken by two men who are the leading educationists in our Province, in this line, and has been most ably executed. The first chapters have been very properly devoted to some scientific principles concerning the plant and the soil, which should be understood by all farmers; the rest of the book is largely taken up with practical instruction upon such important subjects as rotation of crops, management of the various crops, feeding stock, care and management of horses, cattle, sheep and swine, breeds of live stock, dairying, etc. The amount of ignorance characterizing many Canadian farmers on these subjects is surprising, and, it is to be hoped, will give place to a different state of affairs, through the agency of this book, and the useful work of Farmers' Institutes.

## REPORTS.

*The Transactions of the Indiana Horticultural Society for 1889*, C. M. Hobbs, Bridgeport, Secretary. *Twenty-second Annual Report of the Missouri State Horticultural Society, for 1889*, L. A. Goodman, Westport, Secretary. *Transactions of the Main State Pomological Society for the year 1889*, D. H. Knowlton, Farmington, Secretary.

*Transactions of the Massachusetts Horticultural Society for the year 1890*. Robert Manning, Boston, Secretary.

## MAGAZINES.

*The Farmers' Advocate*, a monthly magazine published by Wm. Weld. London, Ont., \$1.00 per annum. This journal has been established over twenty-five years, and has always ably advocated the interests of the farmer. It has a department for the Farm, Stock, Orchard, Garden, Dairy, Veterinary and Household. The immense amount of matter given yearly in its columns, for the small amount of the subscription price, can only be accounted for by the large size of its subscription list.

## CATALOGUES.

*Autumn Bulb Catalogue, 1890*. Peter Henderson & Co., 35 Cortlandt Street, New York city.

## Our Markets

### MONTREAL.

*Apples.*—The shipments of apples from Atlantic ports last week were 51,820 bbls., against 45,872 bbls. for the week previous. The shipments up to November 15th, the close of last week, were 192,572 bbls., against 304,579 bbls. for the same period last year, showing a decrease of 112,007 bbls. This week's shipments are expected to be heavy. The following were last week's shipments:—

	Liverpool.	London.	Glasgow.
Montreal,...	13,249	14,278	9,616
New York..	4,486	40	529
Boston.....	1,084	.....	.....
Halifax.....	.....	8,538	.....

The market during the past week has been steady, with sales of car lots of No. 1 winter fruit at \$3.50 to \$4. The sale was also made of two car loads of choice winter varieties at a point east of Toronto at \$3.50 f.o.b.. Fameuse are a drug on this market, with sales of seconds as low as \$1.50 to \$2. Real fancy fruit, however, has sold at \$4. Cable advices from Liverpool are easier and lower,

one report quoting Greenings, Russets and Baldwins 21s., Northern Spies 18s. 6d. to 20s., and Kings 30s. Another cable quotes Liverpool steady at 22s. to 28s. Glasgow cables are firmer.

*Evaporated Apples.*—Although the stock is light yet the high prices curtail consumption, and the market may be quoted dull at 12c. to 13c. per lb. Some look for still lower prices.

*Dried Apples.*—The sale of a lot of thirty packages was made in the West at equal to 8c. per lb. here, and we quote 7c. to 9c.—  
*Montreal Produce Bulletin.*

### LIVERPOOL.

*November 15, 1890.*

*Canadian Apples.*—20 ounce, 20s. to 27s.; Colvert, 16s. 6d. to 20s.; Kings, 24s. to 30s.; Greenings, 16s. to 23s. 6d.; Spy, 18s. to 23s.; Russets, 16s. 6d. to 25s. 6d.; Baldwins, 20s. to 25s.; Baldwins, 2nds, 16s. to 19s. 6d.—  
MESSRS. WOODALL & Co., *Liverpool.*

## THE ANNUAL AND WINTER MEETING

OF THE

# Ontario Fruit Growers' Association

*Will be held in the CITY HALL, HAMILTON, on*

***Tuesday, Wednesday and Thursday, December 15th, 17th and 18th, 1890.***

The public generally, ladies or gentlemen, who have an interest the cultivation of fruits or flowers, are invited to attend the sessions of this Association at Hamilton, especially those of Wednesday and Thursday.

Standard Certificates should be purchased of the R.R. agent at the starting point, which will entitle the holder to return at reduced fare.

The Royal Hotel will entertain those in attendance at \$2.50 per day, and the American Hotel at \$1.50 per day.

A Fruit Exhibit will be provided for in one of the committee rooms, and to this every person will be permitted to contribute samples of fruit. These will be examined by the fruit committee and reported upon.

Members' Subscriptions will be received at any time by the secretary, entitling the payer to receive all the publications of the society.

The Question Drawer will be in charge of the secretary, and to it all questions are handed in, to be brought up for reply at convenient seasons.

The following visitors are expected to be present sometime during the session:—D. McLellan, Mayor of the city of Hamilton; the Hon. J. M. Gibson, Provincial Secretary; N. W. Awrey, M.P. for Wentworth, President of the Central Farmers' Institute; the Hon. John Dryden, Minister of Agriculture; Wm. Saunders, Director of the Experimental farms of the Dominion of Canada; S. D. Wilard, Vice-President of the Western New York Horticultural Society; A. Blue, Deputy Minister of Agriculture, and others.

### PROGRAMME—Tuesday, December 16th, 1890.

Meeting of Directors in committee room, 7 p.m. Public Meeting, 8 p.m. in the city council chamber. Welcome Address by D. McLellan, Mayor of the city of Hamilton. Reply by the president. Minutes of the last

annual meeting. Directors' Report. Treasurer's Report. President's Address. Election of Officers. social conversation and introductions. Report of New Fruits by the secretary. Appointment of Committees. (1) Fruit Exhibit, (2) on Legislation, (3) on New Fruits. Miscellaneous business.

### Wednesday Morning, December 17th.

10 o'clock. The District Fruit List, Thomas Beall, chairman of the committee. Appointment of committees to carry out fruit catalogue on pears, grapes, peaches, cherries, etc.

Horticultural Institutes, the Secretary. Our Fruit Markets, A. H. Pettit, Grimsby.

Questions.—(1) Would it be wise to seek legislation seeking uniformity in the size and shape of fruit packages? Ought not grape baskets, *e.g.*, to hold out the full weight of five or ten pounds, as the case may be, and the peach basket be kept to the full number of quarts for which it is sold? Should not all fruit be sold by the pound, and every package marked with the number of pounds it contains?

(2) Which is the best remedy for the curculio, spraying or jarring in the trees?

(3) Does it pay to grow the Kieffer pear?

(4) Which pays better, sweet or sour cherries? What varieties of the Morello class are to be most commended?

### Wednesday Afternoon.

2 p.m. Question Drawer.

The Carrying of our Domestic Fruits, E. D. Smith, Winona.

Fruit Growing of 1889 and 1890 in Western New York, S. D. Willard, Geneva, N.Y.

Addresses by visitors, Hon. John Dryden, Hon. J. M. Gibson and others.

Experimental Horticulture in various parts of our Dominion, Wm. Saunders, Director of the Experimental Farms of Canada.

Questions.—(5) Would it be well to ask the Department of Agriculture to make some provision for a register of all new fruits which receive the commendation of this association, with drawings of the same accompanied by a full and accurate description?

(6) In connection with this register, would it not be wise to ask the department to provide for the granting of a certificate of ownership to the introducer of such commended fruit or fruits for a certain length of time, on payment of a registration fee of say \$10.00? All such details, including the engravings and description to aid in identifying the plant, and the names of persons to whom any such certificates are granted during the year, to be entered as an appendix to our annual report.

### Wednesday Evening.

8 o'clock. Question Drawer.

Wild Flowers, their Preservation and Dissemination, J. A. Morton, Wingham, Ont.

The Rose Garden, Mr. Webster, of Webster Bros., Florists, Hamilton.

The Commercial Fruit Growers' Outlook, D. W. Beadle, St. Catharines, Ont.

Questions.—(7) Will it pay to export summer and fall apples; and if so, what varieties?

(8) Can grapes, peaches, pears or quinces be exported with profit? How should they be packed?

(9) Would it be wise for the Department of Agriculture of Ontario to establish a local experiment station, under the charge of the Ontario Fruit Growers' Association with the especial object of testing new fruits originating in Ontario, and the keeping of living samples to aid in identification of them in connection with the proposed plant register?

(10) Is the Niagara grape more productive than the Concord?

(11) Which red grape has paid the grower best during the season of 1890?

### Thursday Morning.

10 o'clock. Question Drawer.

Protection of Tender Plants Requiring the Heat of our Canadian Summer to Ripen their Fruit, P. E. Bucke, Ottawa.

Winter Apples, Still one other Variety Needed, D. Nichol, Catarqui, Ont.

Hardy Ornamental Trees and Shrubs for the Lawn, Jas. Goldie, Guelph, Ont.

Questions.—(10) Does it pay the fruit grower to make his own commercial fertilizer, providing he can buy wood ashes at ten cents a bushel, delivered? What other fertilizer should be mixed with wood ashes to make a complete fertilizer? Are wood ashes suitable to all kinds of soil?

### Thursday Afternoon.

2 o'clock. Question Drawer.

Hardy Apples for the North and for Export, G. C. Caston, Craighurst, Ont.

The Fruit Grower's Packing House, Geo. Cline, Winona, Ont.

Grape Growing in Ontario, M. Pettit, Winona, Ont.

Questions.—(12) Which is the better mode of selling fruit, through agents or direct to retailers? Is the commission business worked as it should be in order to give the grower a fair price for his goods, considering the high prices which are paid by consumers in our near city markets?

(13) Is the present accommodation afforded by the railway and express companies equal to the needs of shippers to our home markets?

(14) What is the value per acre of an apple orchard at the age of one, ten and twenty years, respectively, supposing the ground before planting to be worth \$100 per acre? Could not this association appoint a committee to prepare a table of such values and to present it at our next meeting?

A. M. SMITH, *President*,

L. WOOLVERTON, *Secretary*.



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# The Imperial Produce Company

OF TORONTO (Limited).

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 Agencies throughout the United Kingdom.

Consignments of all kinds of FRUIT AND PRODUCE solicited for Toronto market.  
 Shippers of Apples and Pears to our English Office during the ensuing season can rely upon  
 good returns.  
 Oct. 31.

*Miscellaneous.*

FRUIT and  
 ORNAMENTAL

# TREES

**LARGEST STOCK IN CANADA**

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**STRICTLY GRADED CANADIAN GROWN  
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Guaranteed true to name or money refunded, grown from wood of vines on the Helderleigh  
 Fruit Farms. I am headquarters for the choicest, earliest, purely red grape before the  
 public, the Moyer, ripens August 15th to 25th. A fine assortment of Plum,  
 Peach, Pear and Apple Trees, Berry Plants, Norway Spruce, etc. Be sure  
 not to order Nursery Stock until you get my price list, which will be  
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## BOUND VOLUMES

Of the "CANADIAN HORTICULTURIST," in beautiful cloth case, handsome  
 design embossed in ink and gold, with gilt lettering, for sale at this office.  
 Volumes 1 to 10, excepting 5, 6 and 9, which are out of print, at 75  
 cents each; Volumes 11 and 12 with numerous illustrations  
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