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THE  
Canadian Horticulturist.


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THE MAIDEN'S BLUSH APPLE.



**O**F the long list of apples ripening in the autumn, there is, probably, not one which is so deserving of admiration, on the score of beauty, as the old and well-known Maiden's Blush, a very good representation of which we show our readers in this number. It would, indeed, be a fair maiden whose blush could equal it in coloring, and to say of any apple that it almost equals the Maiden's Blush for beauty is saying almost all that could be said for it under that head. This apple is a native of New Jersey, and was first described by Coxe. The season is mid-autumn, ripening from the 20th of August to the end of October. For table, cooking and market, it is valuable: although deficient

in richness of flavor, a point in which the famous Gravenstein far surpasses it. The showy appearance, however, always gains for it the highest price in the British market. The writer has shipped it to Covent Garden, London, about the first of September, and it has brought as high as \$6.00 per barrel, for extra choice stock.

In our experience with it, however, it has not proved to be a heavy bearer, nor is the tree a very large grower. Our committee on apples, in preparing the catalogue of fruits for the guidance of judges at fairs, has only given it a total of twenty-five points, out of a possible forty, as an autumn apple. Its rating is as follows: Dessert 3, cooking 7, home market 7, foreign market 8, out of a possible 10 under each head. Possibly, it might bear a point or two more for dessert, on the score of beauty.

## STRAY HINTS ON GENERAL MATTERS.

## EXPERIENCE ON A TEN ACRE FARM.



"TEN acre Farm" seems rather small to the ambitious minds of most farmers, but, when you utilize ten acres in an economical, judicious way, there is quite enough to occupy the time of the average working man, that is, if he works as well as *manages* his little domain. Some men do not work themselves, but manage only, depending on others to do the work for them. Such require more land from which to realize a fair margin of profit, yet, their risks are *greater* and the satisfaction *less* than if they listened to the old adage, that,

**"He that by the plow would thrive,  
Himself must either hold or drive."**

There seems to be an exquisite pleasure connected with eating anything you have cultivated with your own hands; partly, because if you are in the habit of working, you are apt to have an appetite to relish what you eat, and, partly, because you carry out the divine principle of industry, which, if acted upon by mankind at large, would banish many of the "ills that flesh is heir to," and carry prosperity and comfort into many a household, where misery now prevails. Where intelligence and manual labor are combined, there is sure to be something good and profitable resulting from the combination.

The great study of the future must be the utilization of smaller areas of land to produce corresponding results. If ten acres can be tilled to show the same margin of profit as often results from fifty acres in the usual mode of cultivation, a step in advance is made by its possessor, and a grand achievement obtained for future generations to profit by.

It pays, then, to let ambition for large cultivation subside into a determination to make the most out of a smaller compass, and let wisdom and intelligence make up for what one may lack in acres. The more the appliances of science and good management are brought to bear in tilling the soil, the more interest and importance attaches to it. If we can make the tilling of the soil an interesting and profitable occupation, and keep the children of farmers from rushing into the towns and cities to seek more "interesting" callings, there will be a point gained worthy of much endeavor to bring it about. Surely, the quiet and purifying influences of country life are much to be desired to the feverish, jostling, scheming influences of city life, by every one who has a heart to appreciate the handiwork of an all-wise Creator. Some one has beautifully said, "God made the country, but manmade the towns."

Now, as to our "hints." From experience on a ten acre farm, we find it *pays* to keep one horse and three good cows. The horse, of course, is an indispen-

sable servant, and, if one was to keep account of what it would cost to hire horse help every time one would need it, we would find our faithful friend would almost pay for himself in one year, beyond his keeping.

As to the cows, our three in the year just closed paid \$99.00, *clear of expenses*. That is, \$33.00 per cow, and this was for what butter and buttermilk was sold not including what was used in a family of five persons, and what skim milk was supplied to two families that had no cow. We have regular customers in the city for our butter, at twenty cents per pound in the summer, and twenty-two cents in the winter. We feed the cows bran mash in the summer, besides the pasturing, and with bran and provender in the winter, with their feed of hay and straw. Salt them every morning, and stable them not too warm, and in the spring when turned out to open ground, they bound and play like deer. The horse gets his rations of hay and provender according to his work, with a handful each of salt and wood ashes in his feed twice or three times a week. This is all the condition powder he needs, and he thrives and is on hand to his work.

We keep about forty laying hens that yield *their* margin of profit as well. We do not believe in stimulating them to lay in the winter, and they begin to lay early in the spring, and do duty faithfully all summer to late in the fall, as a rule.

About three acres in fruit and the same in vegetables, if handled rightly, will yield a fair margin of profit, and will keep two hands busy enough to keep down the weeds, prepare the market loads, and do the marketing. Of course, in the fruit-picking season, extra help must be employed. We make strawberries a specialty, and do something in raspberries, currants, grapes, and have a cherry and apple prospect in the near future. Gooseberries have not paid with us.

The vegetable market is somewhat overstocked in Ottawa, except extra early productions, which pay well. The fruit market for home produce is *good*.

Taking everything into account, there is a fair margin for encouragement on a ten acre farm, within five miles of the city. But, economy in living must add its measure to the common interest. Extravagance in style, in high-toned table expenses, etc., are the canker-worms which eat out the prosperity of many a well-meaning man, but the hard pan essentials of existence can be fully enjoyed with health and wholesome contentment, which are, in themselves, real luxuries.

*Nepeau, Ont.*

L. FOOTE.

POISON VINES.—Some careful experiments have been made by eminent pathologists on poison by the sumac, the result indicating an almost perfect identity in the result with the disease known as erysipelas; and it is suggested, therefore, that the same remedy may be used for Rhus poison as for the trouble in erysipelas. A lather of common potash soap, made strong, and applied with a shaving brush on the affected parts, is a well known and effectual remedy. Those liable to be poisoned by this plant, will do well to remember this.—*Meehans' Monthly*.

## SPRAY WHEN THE BLOOM HAS FALLEN.



JUST after the bloom has fallen is the right time to spray the trees, as that is the time the moth lays the eggs, when the fruit is forming. To spray trees while in full bloom is a waste of time and materials, and don't do the fruit grower *any good*, but kills bees by wholesale that work on the blossoms at the time. If every fruit grower in every locality was to spray his trees with poison while the trees were in full bloom, it would kill every hive of bees in Ontario, and what would be still worse, it would kill every family that used the honey after the bees were poisoned. While on my rounds through the province inspecting hives of bees, I heard the sad news in many places of bees being poisoned by the spraying of fruit trees while in full bloom. I brought this up at the Bee Convention held lately in London. I also moved, and Mr. Jacob Alpaugh seconded it, that Messrs. Allen Pringle, F. A. Gemmill, and E. D. Smith, a nurseryman at Winona, be a committee to wait on the Minister of Agriculture to get an Act passed, fixing the proper time to spray trees, that is, after the blossoms have fallen. I knew Mr. Smith to be a just man, and for the sake of having the interests of the fruit growers looked after, as well as the bee keepers, I put him on the committee with Mr. Gemmill and Mr. Pringle, who are two of as just men as can be found in any country. I see by the *HORTICULTURIST* of February, that we have been reported as wanting to prevent the spraying of fruit trees altogether, which is a mistake. All we want is the proper time fixed for spraying, which is just after the bloom has fallen. If the fruit grower sprays when the bloom has just fallen, he will make a success of the spraying business, and won't kill any bees.

Mr. Charles Baker, a nurseryman at London, said that the trees should not be sprayed until after the bloom had fallen, and he voted for my motion to have the time fixed for such work. Every real fruit grower agrees with me on this point, that is, when the bloom has just fallen. In the Feb. No. of the *HORTICULTURIST*, the Editor says that if we would ask to have the spraying done after the bloom had fallen, that every fruit grower would agree to that. Many thanks to the Editor for helping to fix things so very nicely, by hitting on the very way we want the Act passed, and then it will be in the interests of the fruit grower and bee keeper. I am well pleased with the *HORTICULTURIST*. It is a journal that every fruit grower should take.

*Woodburn, Wentworth County, Ont.*

WM. McEVoy.

NOTE BY EDITOR.—Will we be transgressing if we spray *before* the bloom opens? We need to use a solution of copper, for apple scab very early, because it lives through the winter on the scales of the buds, and must be destroyed before it spreads in spring. We hope there will be no antagonism of interests between bee men and fruit growers, and probably there will not.

## THREE POISONOUS PLANTS.



REPORTED cases of poisoning, from handling the foliage of certain plants, having come under the writer's notice, he has deemed it worth while to describe three plants that possess this property to a considerable degree.

*Anacardiacee* (Cashew Family.)

This order embraces trees and shrubs, with a resinous, gummy, caustic or even milky juice. This juice is poisonous, but is of considerable economic value: sometimes being used as an indelible ink, and also as an ingredient in the preparation of varnish. Even the exhalations from some species are poisonous. Here we find *Rhus Aromatica*. Sweet Sumach is a small aromatic shrub found by the writer on the banks of the Niagara river near Lewiston. *Rhus Typhina*, the common sumach of our Canadian woods, sometimes called Staghorn sumach: but the plants we wish to notice particularly are:



FIG. 15.—RHUS VENENATA.

1. *Rhus Venenata* (Fig. 15). Poison Sumach, Poison Elder, Swamp Dogwood, is one of the poisonous varieties referred to. The leaves are arranged in pairs along the leaf stem, from seven to thirteen leaflets, oval, entire pointed, each about three inches long and one-half inch wide; these soon change color in the fall and present foliage of a very attractive appearance; flowers small,

greenish, and in loose panicles. The fruit is in the form of small nut-like structures, dry, smooth and shining, whitish in color and about the size of small peas. The drupes are well separate from each other and not crowded, as in the case of common sumach. This species grows from ten to fifteen feet high and usually in low spots. Several are to be seen in the Dufferin Islands, Niagara Falls. One very good specimen can be seen at the south end, right-hand side, of the second bridge, as you go south. This labelled would be useful to visitors. Its convenient position and gorgeous foliage in autumn, I have no doubt ere this, has been a sorrow to wanton visitors who visit the Park from time to time. This species is very poisonous to many persons if they come in contact with it, or even get in its immediate vicinity.



FIG. 16.—RHUS RADICANS.

2. *Rhus Toxicodendron*, Poison Oak, Poison Ivy. This, a low variety, leaflets in clusters of three, broadly oval, pointed; two to five inches long, three-quarter inch wide; leaf stalk three inches. The plant seldom if ever exceeds three feet in height and occurs most frequently about two feet high. It is exceedingly common along the banks of the Niagara river, in the vicinity of Victoria Park. Flowers, yellowish-green in panicles: fruit dry, smooth, shining, pale-brown berries. This is also a poisonous variety, but not to such an extent as the preceding. This plant is very common in many parts of Ontario. It is often seen along the railroads. Resembles (Fig. 16) a climbing form.

3. *Rhus Radicans* (Fig. 16), Climbing Poison Ivy, much like the preceding,



but climbs by tendrils, ascending trees as high as forty to fifty feet, or climbing over fences ; the stem is quite woody and sometimes attains a thickness of two inches. Some confound this with the Virginia creeper ; but its leaf clusters have five leaflets, while this has only three, much wider and more oval in outline. Flowers, greenish, and fruit in dull white berries.

These three poisonous varieties can be seen in the Victoria Park. Some persons seem to be able to handle them without serious results, while others dare not touch them nor even come near them.

Views differ regarding the way in which the poison from these plants is communicated. Some maintain that actual contact is necessary, others that it is given off from the leaves, during sunshine, when wetted by dew ; some attribute it to the pollen, and some say that the plants give off a gaseous vapor.

Persons affected show redness about the eye-lids, ears and throat. These parts quickly show inflamed blotches, rising in blisters, the whole face becoming swollen so as to produce blindness, sometimes for days. The poison in some cases spreads over the arms and other parts of the body, and the patient suffers from fever and headache, and even becomes delirious. It is not an uncommon thing for persons once affected to experience attacks from year to year, though not being near any of the plants.

The application of a strong solution of bi-carbonate of soda (baking soda) to the pustules as soon as seen is highly recommended.

Bathing parts affected with sulphate of soda (glauber salts) is also well spoken of.

These three comparatively common plants should be known by everybody, and should be destroyed wherever they are likely to prove injurious. The accompanying cuts will enable the reader to readily identify them.

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CHIEF SAMUELS, of the Horticultural Department of the World's Fair, has returned from a trip to Florida and Cuba, where he stimulated interest in the Chicago Exposition and secured the promise of many fine palms and other tropical plants, to be exhibited in his Department.

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PLANTS FOR THE FLOWER GARDEN.—A happy mean may, perhaps, be found between the pretentiousness of an over display of bedding plants and the total neglect of old time favorites. A bed or two of rich color, with or without softening foils of foliage or shaded tints, is a great adornment even in a small yard, but the ground should be well flanked or whiskered with choice shrubs in cleanly kept beds, with the standard flowers set among or fronting them, or in separate borders, as suits their individual requirements. Such an arrangement gives, even on small space, ever-varying subjects of interest for hour after hour.—*Vick's Magazine*.

## THE BLENHEIM ORANGE APPLE.



OW easy a matter it is to provoke the query, "Who shall decide when the doctors differ?" This interrogatory adage suggested itself to my mind when looking through the *HORTICULTURIST* of February, and finding therein an extract, taken from an English magazine, in praise of the Blenheim Pippin apple. Had the extract been taken and presented to the readers of the *HORTICULTURIST* for just what it was worth from an English standpoint, it would not have attracted any particular attention, but when it was copied without note or comment, we are naturally led to the conclusion, that it was copied approvingly; that everything said was endorsed; and that the Blenheim Pippin apple was recommended to the Canadian fruit grower without qualification.

If I understand the purpose of the Ontario Fruit Growers' Association aright, it is to encourage, as far as practicable, such varieties of apples in the several districts most likely to prove profitable to the grower. It was with that sole object in view that the committee on apples labored for two years in the preparation of a report for the guidance of growers in the several districts of the province, which report was presented to the public but a few months ago. That report does not give an unqualified endorsement of the Blenheim Pippin as an apple for profit in this country.

I agree with the English authority in all that is said of the Blenheim Pippin, so far as its individual qualities are concerned. It is a very desirable apple to have in one's own cellar, and upon one's own table, but when we keep in view profit, as the main object in growing apples, some of the most desirable, or at least the most pleasing, for their individual qualities, have to be passed by.

One year ago I met with the Blenheim Pippin—some very fine specimens of it—in the County of Middlesex. The farmers brought the apple to their Institute meetings to inquire concerning its name and rating. The objection to it was invariably that it was too shy a bearer for profit. This year I met with it again in the southern counties, along the Michigan Central Railway, and southward from Simcoe. In all these localities it vied with the King as a pleasing and attractive apple; but I met with one man only who was satisfied with its productiveness. I carried a sample of the Blenheim among my other specimens and at all the meetings I pointed out to the farmers its merits and defects, emphasizing especially the high favor accorded it in the British market. If the farmers, knowing its high qualities, are satisfied with the prospect of one good crop in every six or eight years—which is as much as can be expected from the King—they plant knowing what they are to reap, and will not be disappointed. One man in South Norfolk had intended placing an order for twenty five

Blenheim Pippin trees in the spring, together with a like number of other highly recommended varieties ; but when he heard my remarks concerning the Blenheim, he felt discouraged. Since the February number of the HORTICULTURIST has reached him, however, containing the unqualified English endorsement, he is in doubt as to the wisdom of his change from his first plan and has written me about it.

I repeat, that in matters of this kind, we cannot be too careful, and those of us at least who go out among the farmers to speak upon horticultural topics, should be in accord touching the methods of cultivation and the merits and comparative values of the various fruits receiving attention. Still more, should we be in accord with the teachings of the HORTICULTURIST. Otherwise we lessen our influence as an Association, and in a measure stultify our efforts in the grand work in which we are engaged. I say grand work, because I believe horticulture to be the most ancient and the likeliest employment, for which man was adapted in his creation, of all the industries known. I am also persuaded that it is to become one of the most profitable industries of this fair province.

T. H. RACE.

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NOTE BY EDITOR.—We would be pleased to receive for publication post cards from every county in Ontario, giving the experience of growers of the Blenheim Orange. We value the criticism of our friend, Mr Race ; but it is a question whether, in the near future, productiveness will count as largely, in estimating the value of an apple for planting in the commercial orchard, as in the past. Beauty of appearance and excellence of quality, bring the high prices in the market, and must be considered more and more by planters. We do not wish, however, to be understood as commending the Blenheim to our readers in general. It succeeds well at Grimsby, our readers must say where else.

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THE Horticultural Department of the Chicago Exposition is planning to have a magnificent rose garden in which will be fully 50,000 plants, besides large groups in special areas. The garden will be of classic design, with temples, arbors, archways and trellises.

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FOOD OF A LIFE-TIME.—A curious calculation of the amount of food consumed in a life-time of seventy years has recently been made by M. Soyer, a French savant, now *chef* of the Reform Club of London. Among other things he says that the average epicure of three-score and ten will have consumed 30 oxen, 200 sheep, 100 calves, 200 lambs, 50 pigs, 2,200 fowls, 1,000 fish, 30,000 oysters, 5,475 pounds of vegetables, 243 pounds of butter, 24,600 eggs and four tons of bread, besides several hogsheads of wine, tea, coffee, etc. This enormous amount of food will weigh but little short of 40 tons.

## AMATEUR GREENHOUSE.

ARRANGEMENTS FOR HEATING IT AT A SMALL EXPENDITURE OF  
LABOR AND MONEY.



HE well to do home gardener, who can afford to spend a little time and money for the privilege of running a miniature greenhouse which will not only give him an abundance of flowering plants, but also a few crisp vegetables in the winter months, will be interested in the plan here illustrated for heating his house. The plans are reproduced from "How to Make the Garden Pay," published by William H. Maule, and the descriptions are from the pen of T. Greiner. The structure shown in Fig. 17 sufficiently explains itself.

Hot water will be found the proper method of heating, and a base burning water heater, that manufacturers furnish for from twenty-five dollars upward, will do good service. The people of Ham-monton, N. J., use a boiler of this kind for heating the brooders in their hen houses, and it may be arranged somewhat in the same manner as shown in Fig. 18. When the house is all made snug and tight, and where winters are not exceedingly severe, it seems that a single pipe for each bench, either in an air chamber under it to provide bottom heat or near the outside, would be fully sufficient.

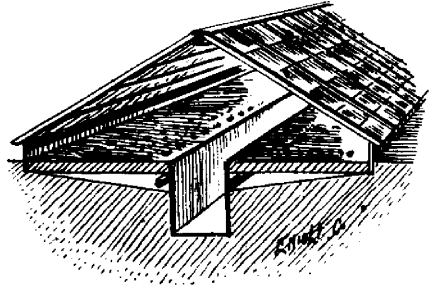


FIG. 17.—GREENHOUSE.

To make the arrangement perfectly clear, we will say that the barrel B is used merely to give pressure to the water in the stove ; C is the faucet for drawing water from the barrel ; D the faucet for emptying water out of stove, pipes and barrel. E is a cock for letting out air from the pipes in order to prevent it from interfering with the water circulation. F and G are cocks by which the connection between stove and water pipes can be broken. If one of them is shut the circulation stops and the pipes will gradually cool off.

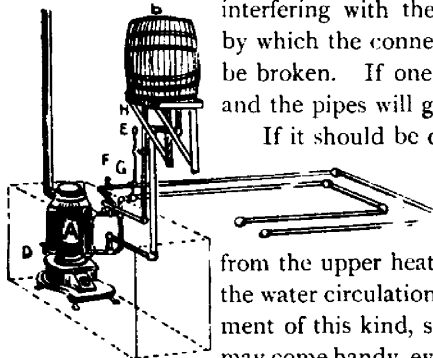


FIG. 18—BASE BURNING  
WATER HEATER AND PIPES.

If it should be desired to heat or boil the water in the barrel, it can be done by shutting off the two cocks, F and G, and opening the one in the vertical pipe leading from the upper heating pipe to the barrel, thus completing the water circulation through boiler and barrel. An arrangement of this kind, simple and inexpensive as it is, sometimes may come handy, even if not entirely necessary for the regular purpose of green-house heating.

## THE WESTERN NEW YORK FRUIT GROWERS.—I.



THE annual meeting of this Society was held in the City Hall, Rochester, on the 27th and 28th of January. Most prominent among its leading spirits are Messrs. W. C. Barry, the able President ; S. D. Willard, the wide-awake, enthusiastic Vice-president ; T. S. Woodward, Charles Green, and others, ably supported by horticulturists and professors from the experiment stations and schools of horticulture. Of Canadians, there were present, Mr. Craig, of the Experimental Farm, and the Secretary of the Ontario Fruit Growers' Association.

The *French system of growing potatoes* was advocated as the most remunerative, because (1) seed was so planted as to get moisture ; (2) it gave advantage of level culture ; (3) it necessitated a better preparation of the soil. The potato scab was the most minute of all the fungi, and could be propagated by planting affected seed, therefore, the greatest care should be exercised in its choice.

Among *fungus diseases of the apple*, the rust was quite serious in places ; it was identical with that causing the so-called cedar apples, and the ripe or bitter rot. Speaking of the scab, Prof. Beach said it often caused loss of one-quarter to one-sixth of the entire crop. It winters on buds and old leaves, and checks growth of both leaves and fruit.

The *powdery mildew of the gooseberry* produces both summer and winter spores, which are easily carried about in the atmosphere for its propagation. It was proved at Geneva that the fruit and foliage could be kept clear by use of sulphide of potassium, using one ounce to two gallons of water, first dissolving it in hot water. One gallon would spray ten or twelve large bushes. The article only costs about one cent an ounce.

The *black knot of the plum and cherry* were probably identical, at least they could be infected the one by the other. The winter spores were formed in sacs during the month of February, and by them was carried about in winter. Mr. Powell, of Seneca, had lost an orchard of 1000 trees. The disease was communicated from an old hedge row of plums near by, which the owner neglected to destroy. The spores could be carried a long way, a mile or two at least, possibly, much farther. It was resolved to apply to the Legislature of the State, asking that steps be taken to eradicate the disease.

Mr. Cook, of Genesee Co., had a fine crop of *Yellow Transparent* apples this season, and esteemed them highly. The *Duchess* and *Anjou* were favorite pears. One orchard of the former, of two and a quarter acres, yielded a single crop worth \$600 this past season. The excellence of the latter was little understood. It should be in every garden.

The Bartlett had been sold at the Geneva Canning Factory this season as low as sixty cents per bushel, but it was thought that if potatoes could be grown at twenty-five cents, surely pears could be grown at from sixty cents to one-dollar per bushel.

The *apple crop* of one county (Orleans) was estimated at 200,000 barrels, and the total value of the fruit crops of that county this past season at \$389,000.

Speaking of commercial fertilizers for the strawberry, Mr. VanDeman said that potash was the chief element required. Mr. Palmer had excellent results with a complete fertilizer.

Of *new apples*, Mr. Willard spoke highly of the Sutton Beauty; it was of good quality, productive, uniform in size. Mr. Powell said it was just right for a dessert apple in size, color and quality, and at its best from January to March. The *McIntosh Red* equals Fameuse, but better in size and general appearance.

The *apple leaf blight*, Prof. Fairchild said, was a great evil. It caused premature dropping of leaves; carrying with them potash and phosphoric acid, which later on, would have been withdrawn from the tree, and stored away for future use. *Quince leaf and fruit blight* was also serious; in Maryland the quince could not be grown on account of it. The *plum leaf blight* was a similar evil and all could be largely kept in check by spraying with copper solutions. Mr. VanDeman called attention to the danger of spraying while trees were in bloom (1) for fear of destroying tender organs of the flower, and so ruining the fruit crops, and (2) poisoning the bees.

NITRATE OF SODA.—As a rule, the best way to use nitrate of soda is to sow it hand cast at the rate of six bushels per acre, or 500 lbs., over the whole surface of the land. An average handful of nitrate of soda weighs 4 ozs. There are 289 handfuls in a bushel of 70 lbs. In sowing, every time the right foot strikes the ground you scatter a handful of 4 oz. If the breadth of land covered is 2 yards and you step 2 feet you will sow 450 lbs. per acre. Stepping 1½ feet, you will sow 606 lbs. per acre. Stepping 1 foot you will sow 900 lbs. per acre. The breadth of land covered is easily regulated by the angle at which the nitrate leaves the hand. A gardener had better use sulphate of potash than kainit, and he will usually find more benefit from super-phosphate than either. The better way is to buy a super-phosphate containing 3 or 4 per cent. of potash, and 10 or 12 per cent. of soluble phosphoric acid. Sow 300 or 400 lbs. of soda super-phosphate and 500 lbs. of nitrate of soda per acre over the whole garden in the spring as soon as the frost is out of the soil. Super-phosphate is now so extensively made and is sold at such reasonable prices that it does not pay a farmer or gardener to make it himself. Better sell the bones and buy super-phosphate and nitrate of soda: or, if there is no market for them, set out some grapes or asparagus, and bury the bones a foot or eight inches deep in the ground below and as wide as your time and patience will permit.—*Pop. Gar.*

## LETTERS FROM RUSSIA.—VIII.

## APOINT (ALEXANDER).



**T**HIS has been known for a long time in Russia, and was mentioned in books of horticulture, even in the last century. It is not known whether it originated in Russia, or was introduced from other countries. Some horticulturists suppose that the Apport, or Oport, is of Turkish origin, but this is only a supposition. On account of the practice of the Russian people of propagating fruit trees by seeds, there have been grown from the Apport ten or more varieties, differing in time of ripening and in taste, and all are very showy apples.

Many nurserymen offer, in their catalogues, four varieties of the Apport for sale. These sorts bring a good price in our markets, though they must not be planted in narrow valleys, gardens with high walls, or in wet ground, or they will not succeed well. The Apport succeeds best in an open exposure, on good black, but not wet, soil. For this reason it succeeds well in the southern governments. It is more sensitive to cold than some other Russian varieties, and winter kills north of Moscow.

The most beautiful samples of this sort, I saw in South-western and Southern Russia.

One of our horticulturists, Mr. Ryloff, described several varieties of the Apport. He divides the Apports into four groups, as follows :

## GROUP I.—UKRIANA APOINT (FIGS. 19 AND 20).

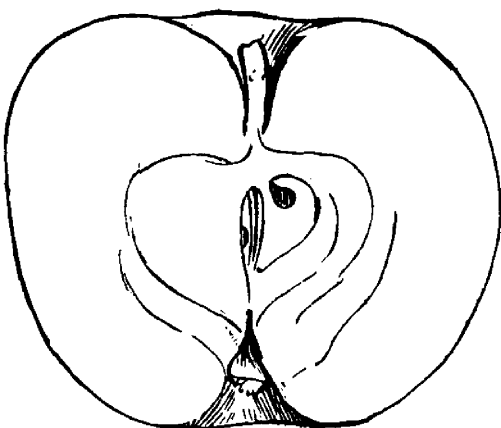


FIG. 19.

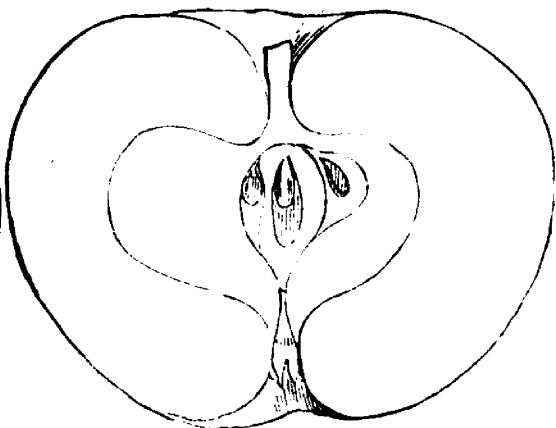


FIG. 20.

Fig. 19 is South Russian. Form, regular, not ribbed; skin, aromatic, colored all around, with rose-colored blush, on which are rose-colored spots, more highly-colored on sunny side: at the cavity the apple is yellowish, and the peduncle green, much blighted. The flesh is dense, fine-grained, sub-acid, of high flavor.

Fig. 20 is of a larger size and lighter ribbed at the peduncle, which is thick. The color of it is like the first, but not so crisp. Both apples keep equally well until February or March. These varieties are good for market, especially the second one.

GROUP II. APORT, WHITE (FIGS. 21 AND 22).

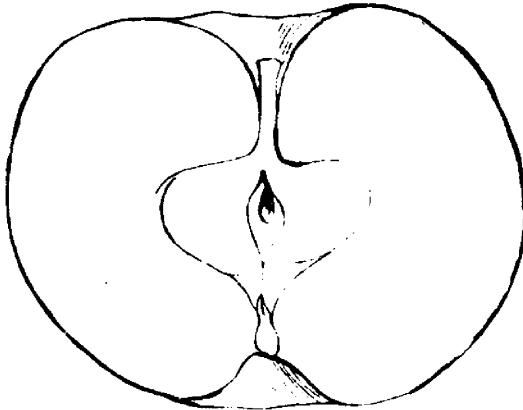


FIG. 21

The first of these forms (Fig 21) has both sides equal, without ribs; skin, rosy yellow with light stripes. Flesh sweeter than those of the first group, but not so good for keeping. Fig. 22 has large, prominent ribs, thick at the peduncle, and very shallow cavity. The peduncle, short and thin; skin, colored on sunny side only, with light rose-yellow blush. The flesh is dense, fine grained and sub-acid. Apparently, this form of ribbed Aport originated from a cross with the Calville.

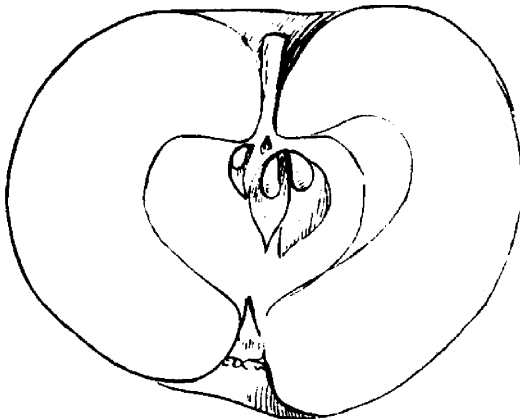


FIG. 22.



## GROUP III.—GRAND ALEXANDER (FIGS. 23 AND 24).

These forms are largely distributed abroad. Andrew Leroy, in his Dictionary of Pomology, writes that this apple was received from Russia in 1817 by a nurseryman named Lee, at Hammersmith, London, and is named by him in honor of the Emperor, Alexander I. From this time it commanded the attention of

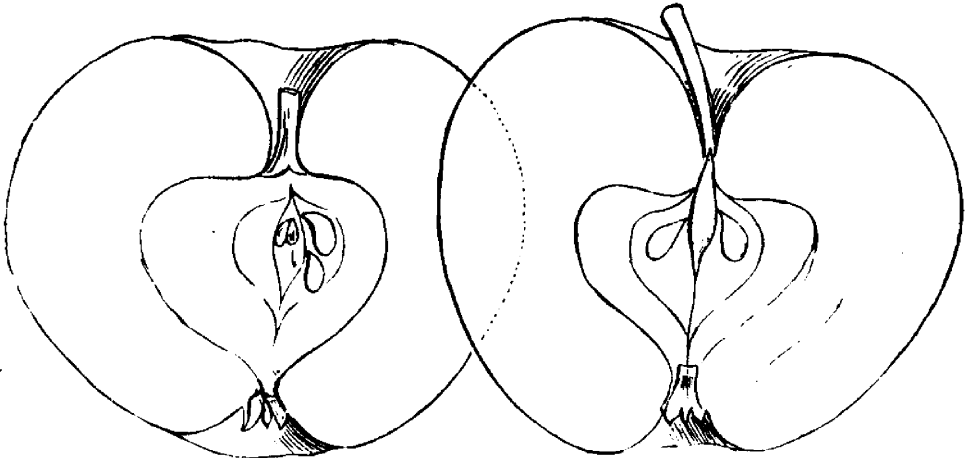


FIG. 23.

FIG. 24.

fruit growers in Western Europe. Fig. 23 has transparent skin, greenish, with occasional spots, and, on the sunny side, striped with carmine. Fig. 24, which, from its outline, may be considered the type of all Apports, has yellowish green skin, brown on the sunny side, without any signs of stripes, very few spots. The flesh of both apples is greenish, fine grained, tender, sub-acid. The latter variety keeps better than the former.

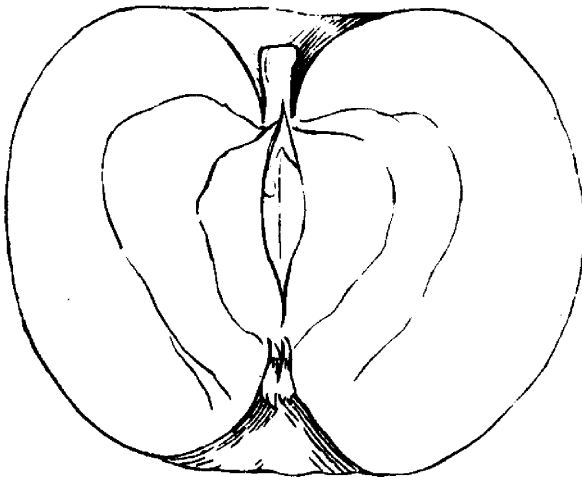


FIG. 25

## GROUP IV.—GRAND APORT (FIG. 25).

This variety was exhibited in Kharkov, and it may be called the Jumbo of apples, on account of its large size. It has prominent ribs, skin waxen-yellow, without many spots. The flesh is large grained, sub-acid, somewhat juicy; seeds, red. It does not keep very long.

*Royal College, Winnitza, Podolie, Russia.*

JAROSLAV NIEMETZ.

## ❖ The Kitchen Garden. ❖

### EARLY RADISHES.



EARLY, tender, crisp radishes can be grown the year round with little care, and in the early spring, when vegetables are scarce, and one is anxious to do work in the garden, this early vegetable may be grown with much pleasure and profit. As it is one of the earliest vegetables to mature, and will stand considerable cold, it should be one of the earliest sown in the spring. Edible radishes have been grown from seed in the vegetable gardens here in forty-three days, and in the hot-beds in thirty-eight days.

Seed should be sown every ten days or two weeks, as the forcing varieties will not remain edible longer than three or four days, when they become pithy. For growing in the hot-bed, either of the early turnip or of the olive-shaped varieties will do as well, as there is little difference in earliness and quality. Of the other types the French Breakfast may be mentioned as one of the best. Early White Turnip may be grown to make a pleasing contrast in a plate of the above red varieties.

All of the above are very dwarf, have only two pair of leaves above cotyledons, and grow only from four to five inches high, consequently the rows may be sown in the hot-bed as closely as four to five inches.

For growing in the garden, the soil should be worked deeply, and cultivated till in very fine tilth. Seed should be sown early in April, and every two weeks afterwards. This will produce a continuous supply all summer and until time for the hot-bed in November.

The following are excellent second early varieties. They are very crisp, and grow long, spindle-shaped. Edible ones have been grown in the vegetable gardens here in forty-eight days, from seed: Wood's Early Frame and Beckert's Charier.—R. H. PRICE, *Experiment Station, Va.*

## THE ONION MAGGOT.

SIR,—I have been trying to collect all the information possible concerning the new system of transplanting onions. I have, however, not come across, either in Mr. Greiner's book, the "American Gardening," or the CANADIAN HORTICULTURIST, any mention of the onion maggot. May I suppose the new culture has checked this little pest, or has it still to be taken into consideration. It would appear that if he is likely to take a hand in the operations, he may prove very much more troublesome than under the old system.

GEO. BUNBURY, Oakville.

Some light may be thrown upon this question of Mr. Bunbury's by the following article on "The Onion Maggot," written by Prof. Fernald, of the Hatch Experiment Station :

The onion maggot (*Phorbia-ceparum* Meig) has caused a great amount of injury to the onion crops both in this country and in Europe. Its life history is briefly as follows :

The eggs (Fig. 26, *a* natural size and *b* enlarged) which are laid on the leaves near the ground, are white, smooth, somewhat oval in outline and about one twenty-fifth of an inch long. Usually not more than half a dozen are laid on a single plant, and they hatch in about a week from the time they are laid. The young larva, as soon as hatched, burrows downward within the sheath

leaving a streak of a pale green color to indicate its path, and making its way into the root (Fig. 27) devours all except the outer skin. When the bulb of the plant has begun to form, several of the larva may be found feeding in company in it, and after it has been consumed they desert it for another, and still others in succession. The larvæ reach their full growth in about two weeks, when they appear as shown in Fig. 26, *c*, natural size, *d* enlarged. The smaller end, which is the head, is armed with a pair of black, hook-like jaws. The opposite end is cut off obliquely, and there is a pair of small brown tubercles near the middle, and eight tooth-like projections around the edge.

The larva usually leaves the onion and transforms to pupæ in the ground outside. The puparium is shown of the natural size at *e* and enlarged at *f*. It does not differ very much in form from the larva, but the skin has hardened and changed to a chestnut brown color within which the true pupa is contained. They remain in the pupa state about two weeks in the summer, when the perfect flies (Fig. 28) emerge, after pairing, the female deposits her eggs



FIG. 26.—A, eggs of onion maggot natural size; b, eggs enlarged; c, larva of natural size; d, larva enlarged; e, puparium of natural size; f, puparium enlarged.

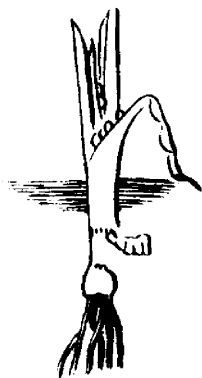


FIG. 27.—Showing the eggs and the larva at work on the onion plant.

for another generation. The winter is passed in the pupa state, and the flies emerge in the early part of June or about the time that the young onions are sufficiently grown to furnish food for the young maggots (Fig. 28).

The following preventives and remedies have been suggested :

Instead of sowing onion seed in rows where the young seedlings grow in contact or nearly so, giving every facility for passing from one to another, they should be grown in hills, so that the larvæ cannot make their way from one hill to the other.

Scattering dry unleached wood ashes over the beds as soon as the plants are up, while they are wet with dew, and continuing this as often as once a week through the month of June, is said to prevent the deposit of eggs on the plants.

Planting the onions in a new place as remote as possible from where they were grown the previous year, has been found useful, as the flies are not supposed to migrate very far.

Pulverized gas-lime scattered along between the rows has been found useful in keeping the flies away.

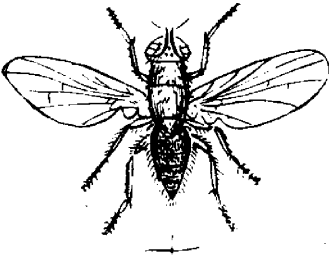


FIG. 28—THE PERFECT INSECT OR FLY.

Watering with the liquid from pig-pens, collected in a tank provided for the purpose, was found by Miss Ormerod to be a better preventive than the gas-lime. It is recommended to run a roller over the ground a few times after the seed has been sown, thus compacting the soil so that the maggots cannot make their way through it from one plant to another.

Water raised nearly to the boiling point and poured along the rows from a tea-kettle or other convenient vessel, has proved destructive to the maggots without injury to the plants. The water should be applied so as to go directly to the bulbs and not to the leaves.

Most excellent results have been obtained in England by growing onions in trenches, and as the bulbs grew, the earth was worked down upon them so as to keep them buried throughout the season. The onion bulbs should be covered with earth up to the neck, or even higher, so that the fly cannot get at them to lay her eggs.

When the onions have been attacked, and show it by wilting and changing color, they should either be taken up with a trowel and burned, or else a little dilute carbolic acid or kerosene oil should be dropped on the infested plants, to run down around them and destroy the maggots in the root and in the soil ground them.



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

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

#### NOTES AND COMMENTS.

THE EXPOSITION BUILDINGS of the World's Fair will be dedicated with appropriate ceremonies on October 12th, 1892, the 400th anniversary of the discovery of America by Columbus. Some \$300,000 are to be spent to make these ceremonies as impressive as possible. The exposition is to open its doors to the public on May 1st, 1893, and close them on October 31st, of the same year. The buildings are all making satisfactory progress, and the horticultural pavilions are up to the roof line. The electric lighting of these buildings will require 138,218 electric lights, and the cost will be something like \$1,500,000. Transportation conveniences to and from the exposition, both for visitors and exhibits, are to be as perfect as possible, and the facilities will be so abundant that a maximum of 400,000 persons can be carried to and from the grounds every day.

GROUNDLESS ALARM OVER AMERICAN FRUIT.—The *Horticultural Times*, of London, England, in its attempts to develop the English fruit growing industry, is lending itself to the trick of abusing the American competitor. In its issue for the 18th of January, an article appears headed, "Arsenic in American apples. Death stalks in the wake of the poisoned fruit." This article states that American apples are coated with arsenic to destroy insects—that a fine delicate powder may be rubbed off all such apples when the barrel is first opened, which is arsenic—that this is absorbed through the skin into the apples, poisoning the flesh—that the high color of American apples is unnatural, and is due to the presence of arsenic. A mysterious case of poisoning is noted, where the husband was suspected of administering arsenic, but he was acquitted on the ground that the lady had eaten freely of American apples, which perhaps contained arsenic.

This scare, it seems, has been noticed by no less than five hundred English papers, and is calculated to do our country incalculable harm. That there is not the slightest ground for it has been over and over proved by chemists. They have carefully examined the mature fruit, and cannot find the least trace of arsenic upon the skin, much less in the fruit. The amount used, 3 ounces to 50 gals. of water, sprayed in a fine mist over twenty or thirty large trees, is too infinitesimally small to do harm, if the fruit was eaten at once, skin and all: but, as at least three months elapse between spraying and harvesting, even this small amount is washed off long previous to fruit season.

Our unjust contemporary speaks of the grapes, which were confiscated by the New York Board of Health, as a proof of the ground taken. But no notice is taken of the fact that the Department of Agriculture caused these grapes to be analyzed, and the result was a statement by scientists that the amount of arsenic found was so small that a person would need to eat 16,000 lbs. at a single sitting, in order to take a poisonous dose!

At the recent meeting of Western New York Fruit Growers at Rochester, Prof. Van Slyke, chemist of the Geneva experiment station, stated that he had analyzed some grapes which had been heavily sprayed with the Bordeaux mixture. He found only  $\frac{1}{30}$  of a grain of copper sulphate in a pound of grapes. Physicians administer one quarter of a grain at a time as medicine, hence, to get a single dose, one would need to eat eight pounds of such grapes at one time, skins and all. At the same meeting, Mr. Perkins brought up the matter of the injustice done American fruit growers by the English press, and, as a result, a committee was appointed to bring the matter before the Secretary of Agriculture of the United States, asking for some action to correct the false impression now abroad in England and on the Continent, regarding the use of American fruit.

It is claimed that pyrethrum powder is growing in favor as an insecticide. It is composed of the dried flowers of the pyrethrum. This plant grows in Dalmatia, Persia, but is now extensively cultivated in California. Hence it is known as Persian or Dalmatian insect powder, but the California brand is called bubach. It possesses an oil or volatile principle that kills insects by contact. It may be used as a dry powder, as a fume, as an alcoholic extract diluted, as a tea decoction, or in solution in water, the latter being most efficient. Half an ounce imparts to two gallons of water the insecticide principle so strongly, if promptly applied, as to destroy all insects not protected by hard or hairy skins, including cabbage or currant worms and young canker worms.

## ❖ Question Drawer. ❖

### PROFITABLE VARIETIES OF CURRANTS AND GOOSEBERRIES.

SIR,—I wish to plant from one to two thousand currant and gooseberry plants between the trees in my young plum orchard. The soil is partly black and fairly well under-drained. Would you name the best varieties for profit.

L. G. CARTER, *Port Colborne, Ont.*

Here again much depends upon the market and the patience and skill of the cultivator in putting up the fruit for sale. Where one has plenty of time to devote to it, and much taste in handling the fruit, he may succeed best with such varieties of currants as the Cherry, which is very large but does not yield very heavy crops to the acre. But, in general, we would recommend among currants for market, the Victoria and Fay's as two of the most profitable of the red varieties. Of the black currants, we are not yet satisfied that Lee's Prolific is any great advantage over the old Black Naples and Black Champion. Black currants sell well in the markets, but, on some soils, they are very scant bearers. On soils such as our correspondent speaks of they should succeed well. Of gooseberries, the three best varieties we know of, for planting in Ontario for market, are the Downing, Pearl and Triumph. Should our correspondent be able to overcome the mildew, it would certainly pay him well to grow some of the English varieties, such as Crown Bob and Whitesmith.

### FERTILIZERS FOR THE GARDEN.

SIR,—Which fertilizers do you prefer for the garden? I am at a loss to know which to order, there are so many kinds offered. I have about an acre in cultivation, chiefly planted with grapes and peaches.

WM. McMURRAY, *The Rectory, Niagara.*

For the garden nothing is better than barnyard manure, which contains all the principal elements required for rendering the land fertile, viz., phosphoric acid, potash, and nitrogen. But, since one cannot always procure this in sufficient quantity, commercial fertilizers are exceedingly desirable, and, in many cases, the more economical.

For the vineyard and peach orchard, we have found potash and phosphoric acid to be particularly beneficial. Much nitrogen seems to encourage too free growth of wood and leaves. We have had good success in a liberal use of wood ashes for the supply of potash, and in the use of phosphates for the supply of phosphoric acid. Forty bushels of wood ashes to the acre is a moderate quantity, and 100 pounds of phosphates is about the least that would be desirable in a single season.

## LIST OF TREES FOR PLANTING IN THE COUNTY OF OXFORD.

SIR,—I have taken your valuable paper for two years, and make free to ask you a few questions. What kinds of apple trees would you advise me to plant in a new orchard on a rich clay loamy soil? The thermometer sometimes goes down twelve or fifteen degrees below zero. Is the Northern Spy much longer in coming into bearing than other varieties? What distance apart would you advise me to plant? What do you think of the Wealthy, or what kinds would be more profitable in my section?

J. C. HARRIS, *Ingersoll.*

It would not be wise to give an absolute list of varieties for planting in any particular section in our province. Very much depends upon the circumstances, such as markets which are accessible, the convenience of the grower with regard to the harvesting and handling to advantage certain varieties. Some people who have plenty of time at their disposal for that work, will succeed well with summer apples. Others would fail entirely in handling them and should only plant staple varieties, such as Baldwin, Greening, Northern Spy, etc.; others, again, might succeed in growing such fancy varieties as Blenheim Orange, King, Wealthy, etc.; but, unless he has time and patience to put them up in fancy packages and put them in the proper markets, he would not make as much money from these as from more productive varieties. In such particulars as these, every man must judge for himself.

The Northern Spy is certainly much longer in coming into bearing than other varieties. The writer has an orchard of three hundred of the Northern Spys which have now been planted about nineteen years; they have been bearing about three years. Had this orchard consisted of Baldwins or Greenings, no doubt they would have yielded profitable crops five years earlier.

Apple trees should not be planted closer than thirty-five feet apart each way. Indeed, it would be better, with strong growing varieties on rich soil, to plant them forty feet apart. The writer has an orchard of full grown trees planted forty feet apart, the limbs of which are now interlacing.

The Wealthy is an exceedingly desirable apple in the north, but is rather tender in flesh for long shipments. Our correspondent will find, in the next annual report, a valuable list of apples, adapted to the various districts of Ontario which may help him in his selection.

## SPREADING ASHES.

SIR,—What is the best way to evenly spread ashes on the land? The shovel does not spread even and hand sowing is tedious.

A. W. G.

The writer knows of no more convenient way than to spread as evenly as possible with the shovel. No one has time to sow ashes with the hand. Unless the ashes are in a lumpy condition, there will be little trouble in distributing them evenly enough for all practical purposes. If not, someone might follow and break up the lumps.



## HYDRANGEA PANICULATA GRANDIFLORA.

Sir,—In your next issue would you kindly inform me about the culture of hydrangeas, what kind of soil, etc. I have bought during summer some of these, reared at Port Hope, but they have not grown well; remain very small, and only flowered once this season. I am very glad of the explicit directions in journal about bulbs, planting and treatment. I have a great many growing.

RICHARD HENRY LIGHT, *Toronto.*

*Reply by Mr. A. H. Ewing, Secretary Florists' Club, Toronto.*

Your correspondent has, probably, got hold of some old stunted plants of the above, and has planted them in poor soil. No shrub pays better for good treatment and good feeding than this. Young plants should be planted in the spring, in good rich soil that has had lots of well decayed manure dug in, and they should be kept well watered during dry weather; when in full growth they may have liberal doses of liquid manure. With this treatment they are sure to have large panicles of flower towards the end of the summer. They should be well cut back every year, before the buds begin to swell, leaving only two or three strong eyes to each shoot, except, perhaps, in order to shape the plant when more may be left, but the less eyes left the stronger will be the growth. It is a most beautiful shrub, and will well repay all the attention bestowed on it. The flowers last a long time—well into October; it should be in every garden. Here is a description of a round bed of them at Elizabeth, N.J., taken from the *American Florist*, Dec. 15, 1888:

“The bed was 25 feet in diameter, and contained thirty plants, the centre plants reaching to a height of eight feet. The plants will be seven years old next spring. They were in bloom August 1st, and made a handsome show for two months. When at their best there were two or three thousand panicles of bloom, the largest measuring fourteen inches in length, and ten inches in diameter at the base.”

## FRUIT ON SANDY SOIL.

SIR,—I have bought a farm six miles from lake Erie where the soil is a sandy loam with quicksand bottom. What fruits and vegetables would be best on such soil?

S. G. FISCHER, *Leamington, Ont.*

Among the fruits, plums, pears and apples succeed better on heavier soil than the kind described by our correspondent, but it would be well adapted to the growing of peaches, cherries, black and red raspberries, black currants and blackberries. Red currants and gooseberries would succeed better on heavier soil.

## NEW VARIETIES AND EXPERIMENT STATIONS.

SIR,—What do you think of our plan of having all new fruits, that are hereafter introduced, to be accompanied by reports concerning their value from some Experiment Station? This would help to weed out a large number of worthless varieties which are thrust upon the public, recommended solely by their introducers.

EDITOR, "AMERICAN FARM AND HORTICULTURIST," *Richmond, Virginia.*

The *American Farm and Horticulturist* is a live paper, and the contents appear to be very valuable. It makes a specialty of giving publicity to the reports of the experiment stations concerning new fruits. The plan proposed by this journal of requiring new fruits to be accompanied with the reports of experiment stations as to their value, is certainly a most desirable one. Whether this could be legislated upon or not, there is no doubt at all that in the course of time this will be required by the public when people get to know the value of the reports coming from these stations. The first inquiry will be, what is said concerning this variety by the experiment station; and surely this will save growers generally from much waste of time in testing new varieties, many of which, after years of cultivation, prove entirely worthless.

## PREVENTING GOOSEBERRY MILDEW.

SIR,—I have mislaid my copy of your journal giving the formula for preventing the mildew of gooseberries. Would you please repeat it in your next number and oblige.

W. H. MAWDSLEY, *Mayne Island, B. C.*

A remedy recommended at a recent meeting of the New York Horticultural Society by Prof. Fairchild, was *eau celeste*, which is prepared as follows: Dissolve two lbs. of sulphate of copper in two gallons of hot water; in another vessel dissolve two and a half lbs. of carbonate of soda; mix the two solutions, and when all chemical reaction has ceased, add one and a half pints of ammonia, then dilute to twenty-two gallons with water. This should be applied once before the leaves show in the spring, then three times during the growing season, being careful to wet thoroughly all the foliage and wood.

Complete success has been reported at the Geneva Experiment Station by the use of potassium sulphide; liver of sulphur. Formula: One half ounce dissolve in one gallon of water. If hot water is used the sulphide will dissolve more readily. As commercial liver of sulphur costs but little, from fifteen to twenty cents per pound, and one gallon will spray ten or twelve large bushes, if applied with a force pump and spraying nozzle, it will be seen that the largest cost will be that of labor.

## PLANTING GRAPE VINES.

SIR,—What is the proper distance for grape vines, between the rows and in the rows?  
A. W. G., *St. Thomas.*

Grape growers in the Niagara district usually plant their vines about ten feet apart each way, but more or less according to the variety. Slow growing kinds, like the Delaware, are often planted seven or eight feet apart in the rows, while large growers, like the Concord, are often planted as much as twelve feet. Ten feet is none too much to give between the rows, not only for convenience in cultivation, but also in order to give abundance of room for the roots of the vines to spread. Any one who pulls up a grape vine by the roots will be astonished at the great distance which they have spread in every direction. Twelve feet between the rows would not be too much for strong growers and would give room for driving a team between the rows, either with a wagon or in cultivation.

## THE LAWRENCE PEAR AT STRATFORD.

SIR,—Do you think the Lawrence pear would succeed here, top-grafted on the Flemish Beauty? I find the latter variety inclined to scab, and as I have more trees of this variety than I want, I would like to graft them with Lawrence, if you think they would endure the climate of this somewhat hyperborean region.

JUDGE WOODS, *Stratford, Ont.*

We are of the opinion that the Lawrence pear would succeed at Stratford, if top-grafted on the Flemish Beauty. We would like our subscriber to make the experiment, and report to us the result.

## THE WAGER PEACH.

SIR,—I exhibited some pears at the Western Fair last fall, of the same varieties as I sent you for naming. The *Beurre Diel*, *Belle Lucrative*, and *Doyenne Boussock* were correctly named. The *Winter Nelis* were thrown out, and, as they ripened in about a month, the judges' decision seems to have been correct. None of the judges knew the pear to name it. There has been an agent around taking orders for the *Wager peach*. He claims it to be hardy, will stand temperature 30° below zero. Do you know the peach? Would it be a desirable tree to plant? I am sending some pears for naming. They are medium size, have larger and smaller. I thank you for your past kindness in naming fruit for me, also for being so punctual in sending the *CANADIAN HORTICULTURIST*, which I would not like to be without.

G. H. NIXON, *Hyde Park, Ont.*

The *Wager peach* is one which is highly commended by many growers, and especially for its hardiness. That it would endure 30° below zero, or even 16° is questionable. It is a yellow flesh peach of good size, and ripens about end of August. The writer has found it very productive, but last year quite subject to cracking. The pears you send for name are the *Jamiette*.

## CANADIAN APPLES IN ENGLAND.

SIR.—I send you an extract from the *Canadian Gazette* published in London, England, respecting the Canadian apple trade which may be of interest.

WM. WHITE, *Ottawa*.

*Extract.*

“It is astonishing what strides the Canadian apple trade with England is making this season. In the shops ‘Canadian apples’ is now one of the foremost brands, and Canada has every reason to feel proud of the display she is thus making on all British fruit-stalls. What better evidence could one have of the quality of the Canadian climate than is supplied by these juicy caskets of bottled sunshine? In price, too, Canada more than holds her own. As Messrs. Woodall report elsewhere, the sums actually paid at Liverpool for the Canadian fruit is from 25 to 50 per cent. higher than those paid for Maine, Boston, and New York fruit, and, even at the advanced prices, Canadians are reported as scarce. Canada has a great field here for her fruits as well as as her grain, dairy, and live stock produce.”

## CUTTING RUNNERS OFF STRAWBERRY PLANTS.

SIR.—Would it be advisable to cut off the runners of newly planted strawberry plants for the first year. We are informed that the crop for the next season would be larger and of better quality than if the plants were allowed to form runners.

ALLAN BROS., *Winona*.

There is no doubt that finer fruit would be obtained by keeping the runners well cut off. This could be accomplished by going over them about three times during the summer. There would, however, be fewer berries. A few runners may be allowed to strike to fill in vacant places, but unless it is desirable to propagate the variety, it would be better not to allow the new plants to grow too closely in the rows. Otherwise, they would act the same as weeds would in checking the growth, and interfere with the good results which it is desirable to obtain.

## PLANTING BLACKBERRIES AND RASPBERRIES.

SIR.—What is the proper distance between rows of red and black raspberries and blackberries in case they are to be cultivated one way only?

A. W. G., *St. Thomas*.

We are in the habit of planting raspberries in rows from five to six feet apart, and blackberries eight feet apart. If closer than this, there is some difficulty in cultivation with horses. They should be kept well cut back and this will very much facilitate cultivation.

## VARIETIES TO PLANT.

SIR,—Would Worden, Brighton, Concord and Niagara be good and profitable varieties to plant in this section? If not, what varieties would you substitute?

A. W. G., *St. Thomas.*

The selection made by our correspondent is an exceedingly good one. The Brighton is a delicate and delicious grape, and where it succeeds well, the bunches are fine, large and very inviting. It is also, with us, a productive variety, but it is somewhat tender for shipping. The Lindley is better in this respect among the red varieties. Our correspondent's list does not include any kinds for long-keeping. If winter varieties are wanted, the Vergennes and Salem might be added.

## VEGETABLES ON SANDY SOIL.

SIR,—Would you please say what vegetables I might be able to grow successfully on sandy loam, with quicksand bottom?

S. G. F., *Leamington.*

*Reply by J. J. H. Gregory, Marblehead, Mass.*

I would say that on such a soil as you name, if it is fairly manured, you can grow Yellow Mangold beans, Winnegstadt cabbage, lettuce, melons, cucumbers, peas and turnips, also Hubbard squashes.

## APPLES FOR MUSKOKA.

SIR,—A friend of mine wishes to plant 100 apple trees, the locality is in Walpole. I wish you would advise me as to the most suitable varieties for shipping purposes, and a few for their own use and local trade. What have you in your locality suitable for planting in the north, Muskoka, apples and crabs.

F. W. FEARMAN, *Hamilton.*

The varieties most commendable for planting in the Muskoka district, are the following, named about in their order of ripening: Yellow Transparent, Duchess, Wealthy, LaRue, Scott's Winter. These are well tested kinds. There are some of the Russian, and other apples, which may yet prove deserving of first place.

## A CURIOSITY.

SIR,—I had a curiosity in my garden last year. A Duchess apple tree, which I had transplanted in Nov., '90, and which I clipped and pruned heavily, in the spring blossomed all round nicely, and set a large crop of fruit, which by the time they were gooseberry size, it commenced to drop; as the old sap, I suppose, was being exhausted, and only matured 16 apples, the last of which it dropped on the 26th August. But about the last week of July, and while many apples were yet on the limbs, the tree commenced blossoming over again, and blossomed thus all through August and a part of Sept. The new sap, I suppose, gave it this second spring start. Do you think it will bear coming season? Answer through magazine.

M. McKINNON, *Ottawa.*

We should say these symptoms were not favorable for the future usefulness of the tree. It would have been wiser to have removed the blossoms, for it is too exhausting of the tree's vitality, to allow it to fruit so soon after transplanting.

## \* Open Letters. \*

## LETTER FROM BRITISH COLUMBIA.

SIR,—I have planted about twenty acres of fruit trees here for Mr. W. E. Scott, of Vesuvius Bay, Salt Spring Island, B. C., and have persuaded him to unite with us. I have also found a plant growing here very much resembling the olive in its habit of growth and the manner in which it bears its fruit. It also has one stone in each fruit, which, when ripe, is red instead of green or yellow, as most olives are. It is so much like the olive in character, that I am convinced that olives would grow here, and I am getting some from California to experiment with.

A. W. BARROW, *Vesuvius Bay, Salt Spring Island, B. C.*

## MOORE'S DIAMOND GRAPE, ETC.

SIR,—As Moore's Diamond grape is to be distributed for trial this spring, I write to say that I have one vine growing in my garden, and, last summer, it bore ten bunches of very fine grapes. The bunches were large, very compact, and the quality was first class. The vine is about four years old.

I have a Vergennes grape vine planted in 1889. It had four bunches of first class grapes last summer, and these were of good quality. The vine is a strong grower.

I have also the Industry gooseberry. It is a good cropper and a large berry. I measured some of the berries and they were four inches round. I gathered sixteen quarts off of three small bushes, only three years old, without sign of mildew or rot.

I will write more soon regarding other varieties of fruits which I have growing in my garden. I am an amateur fruit grower, living in St. Thomas. I notice that Mr. E. Morden advises city men to stay in the city and eat all the fruit they can, and buy from outsiders, but some of us city men can grow as good fruit as outsiders, and more of it in one garden lot than some of the outsiders do on three lots, and we can eat it, too.

WM. WORTH, *St. Thomas.*

## McINTOSH RED.

SIR,—I was very much struck at Hamilton by the McIntosh Red, and certainly I am inclined to agree with Mr. Shepherd as to its value in England. Some one, however, said that, like the Fameuse, it was likely to spot badly most years. Have you any information as to its adaptability to this section.

In an American paper I see the Dominie highly spoken of. With me, it is absolutely worthless. Bad shape, bad grower, and a bad looking apple: and upon each occasion when I have sent it to England, its native place, I believe, it has never failed to bring the lowest price of any sent. Evidently, they knew it!

If we can grow such lovely apples as the McIntosh Red, as shown at Hamilton, I think we ought to do so, as I believe such apples will always fetch fancy prices in England, and I don't think that I ever saw such a perfect-looking red apple as the McIntosh Red that I saw in Hamilton. I see in the Annual Report that the experts give Northern Spy full marks for foreign market. I am extremely curious to know what foreign market that applies to. From a constant study of returns from Great Britain, and from some considerable experience in sending Spys to London, I don't think they mean the British market! I would very much like to hear from the large shippers as to whether they ever once got the top price for the Northern Spy in their consignments to Great Britain. I know I never did. This year they were as good as they could be possibly, but they were beaten by half a dozen varieties in Covent Garden.

(GEORGE BUNBURY, *Oakville.*)