

## Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of scanning are checked below.

Canadiana.org a numérisé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de numérisation sont indiqués ci-dessous.

- Coloured covers /  
Couverture de couleur
- Covers damaged /  
Couverture endommagée
- Covers restored and/or laminated /  
Couverture restaurée et/ou pelliculée
- Cover title missing /  
Le titre de couverture manque
- Coloured maps /  
Cartes géographiques en couleur
- Coloured ink (i.e. other than blue or black) /  
Encre de couleur (i.e. autre que bleue ou noire)
- Coloured plates and/or illustrations /  
Planches et/ou illustrations en couleur
- Bound with other material /  
Relié avec d'autres documents
- Only edition available /  
Seule édition disponible
- Tight binding may cause shadows or distortion  
along interior margin / La reliure serrée peut  
causer de l'ombre ou de la distorsion le long de la  
marge intérieure.

- Coloured pages / Pages de couleur
- Pages damaged / Pages endommagées
- Pages restored and/or laminated /  
Pages restaurées et/ou pelliculées
- Pages discoloured, stained or foxed/  
Pages décolorées, tachetées ou piquées
- Pages detached / Pages détachées
- Showthrough / Transparence
- Quality of print varies /  
Qualité inégale de l'impression
- Includes supplementary materials /  
Comprend du matériel supplémentaire
- Blank leaves added during restorations may  
appear within the text. Whenever possible, these  
have been omitted from scanning / Il se peut que  
certaines pages blanches ajoutées lors d'une  
restauration apparaissent dans le texte, mais,  
lorsque cela était possible, ces pages n'ont pas  
été numérisées.

- Additional comments /  
Commentaires supplémentaires:      Continuous pagination.

# The Canadian Horticulturist.

---

VOL. IV.]

AUGUST, 1881.

[No. 8.

---

## STRAWBERRIES.

The experience of another season with some of the more recently introduced varieties will not be without interest to all cultivators of the strawberry, and may prove useful to those who contemplate planting, especially those who intend to plant for market. The season just closed has on the whole been favorable to this fruit, especially in those sections of the country that escaped late frosts. The month of June was cool, with frequent showers and much cloudy weather, so that the fruit ripened up gradually and swelled to its full size. Reports from the City of New York say that never has there been such an abundance of strawberries, that the business has been enormous, and the supply fully equal to the demand for consumption in that large city and for shipping to other places, some having been sent in refrigerators to the West Indies. It is thought by some that the time is near at hand when they will be sent in this way across the Atlantic. As a matter of course prices ruled low during the height of the season, and growers did not always get well paid for the labor of production.

It would seem that the Wilson yet maintains its position as the great market strawberry of this country. With all its imperfections, its dark color, acidity, and the like, it seems as yet to be the mainstay of all who grow for market; and so extensively has it been planted, that when the crop of Wilsons is being harvested the markets are literally deluged with its berries, and prices rule low. In Toronto they were retailing at seven cents per basket during part of the season, and were sold in the St. Catharines market as low as four cents. From this, one would infer that those who grow for market might profitably turn their attention to those varieties which ripen either before or after the Wilson, and so secure a better price by avoiding the period when the great rush of the Wilson comes in. Besides this, the public are fond of variety, and those who are able to gratify their taste will

pay a higher price, if needs be, for the sake of a change. So that if a berry can be found of a different appearance and flavor, even if ripening at the same time with the Wilson, which is sufficiently reliable, productive and popular, it may be more profitable to cultivate that variety to some extent, instead of relying exclusively on the Wilson. The thing to be ascertained is whether we have such a berry, and the object of these notes is to lay before the readers of the HORTICULTURIST such information as we now have of the several varieties claiming attention, so that they may be aided in the selection of those they desire to plant.

Prominent among the sorts of later introduction, we notice the

#### CRESCENT SEEDLING.

This variety was introduced by Mr. Parmelee, of New Haven, Conn., about ten years ago, and has during this time become widely disseminated. In so far as we have had an opportunity of observing it, we have found it to maintain its eastern reputation for hardiness, vigor of growth and great productiveness, and this seems also to be the general opinion of those Canadian cultivators who have given it a trial. It is certainly a most vigorous grower, having large, healthy foliage, which does not seem to spot or scald in the hottest weather, and it is also quite able to endure our winters as well as the Wilson. In point of productiveness it rivals the Wilson, being considered by many of our observing cultivators *as productive* as that well known variety. On account of its very vigorous habit, we are confident that it should be allowed abundance of room, in order to the production of the finest berries and largest crop. The berries are not of extraordinary size, but there are less small berries than of the Wilson, hence the crop is more uniform. The color is a bright scarlet, which is more attractive than the dark, dull red of the Wilson; in flavor it is not so tart, nor is it any richer, if as rich; the flesh is a light pink, and not quite as firm. These seem to be the points of this berry. The fact that the flesh is not as firm as that of the Wilson detracts considerably from its value as a shipping fruit, but for a near market its bright color and fair, uniform size, coupled with the vigor, hardiness and productiveness of the plant, give it considerable value. It should be stated that the flowers are pistillate, and therefore it should be planted near other varieties which produce an abundance of pollen.

## CUMBERLAND TRIUMPH.

This variety has received considerable attention since its introduction in 1874, by A. Miller, Carlisle, Penn. The plant is vigorous and hardy, and fairly productive, but by no means equal in this respect to the Wilson. The berries are large and uniform, and of a bright, light red color, and of fair quality, but too soft for shipping any distance. In many respects it resembles the variety raised by J. H. Biggar, of Drummondville, and named by him the

## NEW DOMINION.

This possesses all the good qualities of the Cumberland Triumph, and is at the same time more productive, of somewhat firmer flesh, and better flavor. It is a very showy, handsome fruit, of large size, very regularly formed, and very uniform, ripening towards the close of the Wilson crop; and though not of the highest flavor, sells well in a near market, where it can be offered fresh. But it also is too soft to bear long journeys by rail, and is in danger in such cases of arriving in a damaged condition.

## MINER'S PROLIFIC,

(sometimes called Miner's Great Prolific,) originated with T. B. Miner, of Linden, New Jersey, in 1877. This variety proves to be much like the Wilson in color and size of fruit, and also in quality. It is scarcely so firm in flesh, and so far as present experience enables us to speak of it, we do not find in it any desirable quality that we have not already in the Wilson.

## GLENDALE.

This variety was brought to notice by W. B. Stover, of Akron, Ohio, who found it growing in the Glendale cemetery in 1871. It has some good points for a market berry, and is deserving of careful trial. The plant is healthy and vigorous, and yields good crops, though not equal in productiveness to the Wilson or Crescent Seedling. The berries are not very large, but more uniform in size than those of the Wilson. The color is a light scarlet; the flavor good, but not best; the flesh is firm, and the calyx large, so that it bears carriage well, and the time of ripening is later than that of the Wilson. It will thus be seen that in color of fruit, firmness of flesh, and time of ripening, it possesses three good points for a profitable market berry.

## SHARPLESS.

Much has been said about this berry, and its praises have been sounded forth far and near. It was raised by J. K. Sharpless, of Catawissa, Penn., in 1872. The plant is vigorous, and the leaves are large, and seem to be able to endure the heat well. The fruit is large, often very large, and showy, irregular in form, of a bright scarlet color; flesh tolerably firm, flavor good, and the time of ripening somewhat after the bulk of the Wilson has been gathered. It is impossible to speak positively of its productiveness, but it seems to yield best when grown in hills or very narrow rows. In a matted bed the yield is not large. The size, color, and time of ripening of this berry are strong points in its favor as a market fruit, and in a discriminating market, where large size and showy appearance will command increased price, it gives great promise of being a profitable berry.

## EARLY CANADA.

The credit of originating and disseminating this strawberry is due to one of the members of the Fruit Growers' Association of Ontario, A. M. Smith, formerly of Drummondville, now of St. Catharines. The writer first saw it in his plantation at Drummondville in the summer of 1878, at a time when the bulk of the crop had been harvested, but enough of the fruit remained to enable one to judge of its quality and prominent features. The plant is hardy and healthy, much like the Wilson in appearance and habit of growth, and apparently equal to it in productiveness. The fruit in size, color, firmness of flesh, and form seems to be the counterpart of the Wilson. The flavor is also much like that of the Wilson, though not quite as acid. Its time of ripening is about a week earlier than that of the Wilson, growing side by side and of the same age. This variety has not yet been widely disseminated nor extensively planted, but we hear of a person near Jordan Station who planted an acre of it in the spring of 1880, and this year gathered four thousand five hundred quarts of berries from it, which sold at very satisfactory prices.

The profitable marketing of strawberries is a problem into which many elements of calculation necessarily enter. The character of the market where the bulk of the crop is to be sold is an important element. Can purchasers be found who are willing to pay a good price for extra fine fruit when the market is full of that of a medium

quality, is a question that presents itself prominently to the mind of one who is thinking of growing fruit for that market. In many places a strawberry is a strawberry, and fine quality and showy appearance will not command a higher price than the medium grade. But if the market is one where bright color, large size and pleasant flavor will command double the price of those of medium quality in these respects, then one may venture to plant a few varieties for the express purpose of meeting that demand. Having such a market in view, it would seem that Crescent Seedling, New Dominion and Sharpless might be planted with good prospect of receiving satisfactory returns, to be preceded by Early Canada and followed by Glendale.

### SHEEP IN THE ORCHARD.

A correspondent of the *Vermont Journal* gives the following interesting experience in keeping sheep in an apple orchard :

My apple orchard covers thirty-two acres of ground, and in addition to making it a run for some thirty hogs, I have during the past two years kept from 150 to 200 sheep and lambs in it during the summer. Of course that amount of land, if it was in good seeding and free from trees, would not pasture so much stock, but in addition to the pasture, I feed enough grain and wheat bran to keep them in such condition that the lambs shall be large enough to wean in July, and the sheep sufficiently thrifty to accept the buck after weaning the lambs, and thus drop their next lambs for early winter feeding next winter.

This, I find, costs me less than to hire the same number pastured by the week, and being crowded they eat every spear of grass, every weed and green thing close down, and eat every fallen apple as soon as dropped; for the latter purpose I find sheep much better than hogs, for while the hogs sleep so soundly as not to hear an apple drop if only a few feet away, a sheep never sleeps, so that it is on hand for every apple as soon as it touches the ground.

I let them run here until time to gather winter fruit, and although they will eat a few apples and a few twigs from the ends of the lower limbs, as they bend down with their load of fruit, I find my fruit each year growing fairer, with less and less wormy apples, and my trees, manured with the feeding of so much grain, are looking remarkably healthy and are productive. To prevent their gnawing the smaller trees, I wash the trunks with a solution of soapsuds, whale oil soap and sheep manure, about once each month, and besides I give the sheep a constant and full supply of fresh water; this is very important, for in hot weather they get very thirsty and will eat the bark from larger trees even, unless they have plenty of water.

I like this manner of treating my orchard very much ; what it would cost me to hire the sheep pastured each week will buy at least 500 pounds of bran and 400 pounds of corn, making an aggregate each summer of over ten tons of the very best kind of fertilizer for the orchard. For the money I pay for feed I get my sheep kept in the finest condition, have the lambs growing finely all summer, and have the whole amount of feed bought (which is worth all it costs for the purpose) scattered about the orchard in the best possible manner. Thus, you see, I prove that it is perfectly practicable to "eat my cake and have it, too," or in other words, to get twice value received for the money invested, besides having codlin moth successfully trapped.

---

### IRRIGATION.

BY P. R. BUCKE, OTTAWA.

It has given me a great deal of pleasure to find that my papers on irrigation, read before the winter meetings of the Fruit Growers' Association in 1877 and 1878, have at last met with some attention in the public press, and I have to thank my brother Director, Mr. Beal, of Lindsay, for bringing forward this subject, which I consider one of the greatest importance as regards the wealth and prosperity of Ontario.

Some knowledge of the subject of irrigation and the requirements of plants would convince the most sceptical that "in the greater part of the hot growing season water is in a great measure wanting, because there was not enough moisture to moisten the ground." Some very interesting experiments have been made at various times, which would tend to bear out this statement. One of these was conducted by J. B. Lawes, of Rothamstead, England, with the view of ascertaining the amount of water required for a crop of wheat, and it was shown "that for every pound of dry matter produced, 200 pounds of water was evaporated through the leaves, and for every pound of mineral water assimilated by the crop, 2000 pounds of water passed through the plants." Mr. Lawes therefore came to the conclusion that the natural supply of rain water was totally inadequate for a maximum crop, and that leguminous plants, such as beans and clover, require a much larger supply of water. If such is the case in the humid climate of England, how much more so must it be under the bright sky and dry atmosphere of Canada. Under Mr. Lawes experiment the plants were given all the water they required, and the manures used were the

most active that could be produced, being a mixture of phosphate of ammonia, nitrate of potash, and chloride of sodium.

From similar experiments made at the Agricultural Observatory at Montsouris, France, results of a like nature were found to follow; and it was demonstrated that for a crop of forty bushels per acre of wheat, the minimum amount of water evaporated through the leaves was six inches in depth over the whole surface of the field, whilst the maximum reached was seventeen inches of rainfall. Though 40 bushels of wheat is considered a good crop in this country, from 64 to 66 bushels are not uncommon with the farmers in England. If however only six inches of water is evaporated through the leaves, when we take into consideration the amount evaporated from the ground, the quantity of water that runs away during the heavier rains, and that which is lost unassimilated through the drains, it will be evident the rainfall of say half April, May, June, July and August,—the growing season,—amounting to  $13\frac{1}{4}$  inches, (the average rainfall in Canada,) is “not enough to moisten the ground,” and that “water is in a great measure wanting.”

It is utterly impossible in Ontario to rival the crops of England without a larger supply of water than the clouds are willing to give, and if such is the case with wheat how much more is it with regard to the grasses and the more succulent garden vegetables. Every year we see the pastures more or less burned up, and even the foliage plants, with the exception perhaps of Indian corn and millet, would give a much larger yield if water were at hand for irrigation.

It is hardly a fair comparison to set the climate of Ontario and England in juxtaposition with regard to irrigation, as there is relatively no similarity. The evaporation from the sea keeps the atmosphere there continually moist. We hear of such things as eight hours sunshine in eighty days, I think in the year 1877, but of course in the year referred to the crops were unusually bad, whereas the average of cloudy weather here is only 0.61.

I am aware that sewage farms have not so far met with the success anticipated. It appears that the thicker parts of the manure collect around the stems of the grass plants, and the growth is checked or decay ensues. But water meadows have always proved a success.

The vineyards of the Crimea which are planted in four villages, and extend over an area of 15,000 acres, are regularly irrigated,



commencing from the time when the vintage has been completed in the autumn, the watering is continued until the fruit sets next spring.

Mr. Beal thinks that sufficient information was not given in the papers referred to on irrigation read at the winter meetings of 1877-8—see Annual Reports for those years. I can only say that the time of these meetings is limited, and the subject of irrigation is a long one. To have travelled over all the ground (or water) would have wearied the audience. My object was merely to draw attention to the subject generally, trusting that parties more conversant than myself, and more able writers, would give their experience.

A general system of irrigation, such as is required for Ontario, would have to be undertaken either by the Government, as in Europe and Asia, or by companies, as in California. It would not be possible for private individuals to undertake the artificial watering of more than a few acres. Irrigation on a large scale would require legislative enactment for the right of way of large canals, heavy cuttings and embankments, and the use of water from streams at present flowing. It would therefore have been useless to give any estimate of the cost of the systems employed by private individuals in England. There also the cost of labor and material is cheaper than here, and a smaller supply of water is needed.

In the south of France, where the climate is hot and dry, and irrigation is extensively practiced, from  $3\frac{1}{2}$  to 4 inches of water in depth is applied to the land every ten days; and this supply is the basis for all contracts between the government, which looks after the water supply, and the owners of the canals. And this may be taken as the medium amount required in Canada, as the climate and circumstances are somewhat similar. Some crops and soils require more, and some less.

From observations made by Mr. Dickinson, Abbots Hill, England, extending over eight years, he found that ninety per cent. of the water which falls during the summer months was evaporated from the soil. If such is the case in a cool, cloudy climate, what must it be here, where the temperature is from  $15^{\circ}$  to  $20^{\circ}$  warmer, under the direct influence of vertical and unveiled sun.

---

The Early Purple cherry proved to be a very profitable crop this season, selling readily in Montreal at from 15c. to 20c. per quart.

## HORTICULTURAL GOSSIP.—XIII.

BY L. WOOLVERTON, GRIMSBY.

THE FOREST TENT CATERPILLAR, (*Clisiocampa sylvatica*), is more numerous this year about Grimsby than ever I have seen it. I had just read the other day of the great devastation committed by the army worms in northern New York State, when I found our orchards swarming with these caterpillars. Leaves were loaded with them here and there on each tree, and great broods on the branches.

They differ from the American Tent Caterpillar, (*C. Americana*), in that they do not congregate under webs, and in having a series of white stripes along the back instead of a continuous white line. Another distinguishing feature is the color, which is of a paler hue. Generally they are not friendly with the last named, seldom being numerous in the same orchard. How true it is that the fruit grower to be successful must exercise the most restless vigilance. These enemies will very speedily strip an orchard bare of foliage if left unchecked. I found I must deal carefully with them, for they are more wary than their American cousins, which hide under their webs and calmly submit to death. They will drop to the ground if disturbed and escape unless you are prepared for their manoeuvres. Where I found them congregated on a limb I gathered them on a flat trowel-shaped board and there destroyed them, and where they were huddled on a leaf high up, I cut the twig down with a long Waters' pruner and stamped out their hateful lives.

THE FALLING OF PEACH LEAVES is a more perplexing trouble to peach growers just now than any insect foe, for we know no way of meeting it except with resignation. What does it mean? The leaves throughout the orchards are wilting and falling—we know not why. Some trees look as if they were just transplanted, and were dying for want of moisture. A little while ago the trees were full of blossoms, and peach growers were beginning to solace themselves with the expectation of a good crop and long prices. But, lo! in a night our hopes are vanished. Is it a premonition of a wide spread destruction of peach orchards by the yellows, or is it some new disease? We are yet at a loss to say.

THE YELLOWS.—A meeting of the Fruit Growers' Association of Grimsby was held the other day in the Town Hall, Grimsby, for the

purpose of taking steps to give effect to the law just enacted for the prevention of the spread of the yellows in the peach. This law provides that any five freeholders in any municipality may petition the council of such municipality, or of any adjoining municipality, for the appointment of an inspector. The duty of this officer shall be to examine all orchards wherein yellows are supposed to exist, and to give notice to owners to cut down and burn diseased trees. The owners are then compelled to destroy such trees within seven days after such notice has been served. This meeting took the initiative in this matter, by appointing a committee of five in each municipality of the peach growing district, who should be urged by the Secretary to take immediate steps in their respective localities for the enforcing of this Act.

### THE DOYENNE D'ETE PEAR.

BY J. M. MCAINSH, MISSOURI.

The Doyenne d'Ete is the most profitable variety of pear I grow. The fact of its being so, however, is not so much due to any merits it may possess as to exceptional circumstances. It is the earliest good pear we have, ripening about the first of August, a time when in this section of the country fine fruit is rather scarce, strawberries, cherries and other early fruits having about gone by, and fall pears, plums, &c., not yet being in the market. The tree is a fair grower, and although it cannot be classed among the very hardy sorts, still it can be grown successfully throughout a large part of Ontario. It bears abundantly when quite young, either as a standard or dwarf, but except when a small tree is wanted for the garden I see no inducement to grow it as the latter. A larger quantity of fruit can be grown with less expense on standards. The fruit is of small size, but as a dessert pear it ranks first quality. When ripe it is of a bright yellow color, and the best specimens are usually shaded with red. Those who are growing pears for family use should plant a tree of this variety—probably one will be sufficient. So long as it is grown in small quantities as a market variety, it will probably prove profitable, but if it be grown extensively the market will soon be glutted, for it is too small to be profitably used for any purpose save as a dessert fruit.

## WINDOW GARDENING.

The question is often asked: How often should I water my plants? Although a seemingly simple question, it is under all conditions, a difficult one to answer, as some plants, even of the same kind, require different supplies under different conditions. Take geraniums, for instance. When growing with full vigor, with the pots well filled with roots, there is but little danger of giving too much. Every day will not be too often if the weather is clear. Take the same plant with but a small number of leaves on it, and newly shifted into fresh soil, with but few roots, and watering once a week may even be too often for it. All soft wooded plants growing vigorously require an abundance of water; always when they are the least dry, which can be told by the surface of the soil getting white, or when, the side of the pot being tapped with the finger, a hollow sound is made. By feeling the weight of the plants, a little practice will suffice for knowing pretty nearly the condition of them, whether wet or dry.

Plants sparsely supplied with foliage and with few roots, require sufficient water to keep them in a healthy condition; but care must be taken not to approach anything like a saturation of the soil. Succulent plants, such as agaves and cactuses, require but little water. When at rest, their succulent leaves serve for storing up water sufficient to keep them in healthy condition for a long period. Deciduous plants—such as fuchsia and crape myrtle—during the time they are without leaves should not, however, be allowed to get too dry. As the stem and branches evaporate moisture, sufficient water has to be given at the roots to supply this evaporation; for, if not, the roots will eventually shrivel up and die.

The temperature of the water supplied to plants should be about the same degree as the temperature of the room in which the plants are growing; or, if a little higher, will be a benefit, rather than anything else. And when water is given, sufficient should be applied to thoroughly saturate the soil. A mere dribble on the surface does more harm than good, as it draws up what moisture there may be in the soil below where it is wet. Plants should not be allowed to stand in saucers filled with water. Give sufficient water to run through into the saucer. But then empty it out and do not allow the plant to remain in it. During cold weather watering is better to be done in the morning, as then all superfluous moisture gets a chance to evaporate before night.

The temperature at which plants should be kept during the winter is lower than a good many would suppose. High night temperature to both green house and window is injurious, the results of which, are weak and slender growths, with but few flowers being produced. A temperature of 45 degrees during the night with 60 to 65 degrees during the day time is high enough for most plants. Of course there are plants which require a good deal higher temperature than this but they are not so well suited for window culture. The main aim should be a steady temperature more than a high one. A high temperature to-day and a low one to-morrow, has a very injurious effect upon all kinds of plants, and should be avoided as much as possible. Pans for evaporating moisture should be kept on the

stoves during severe weather, when plants are growing. It not only helps to prevent gas from having an injurious effect, but modifies the temperature to a great extent. The most effectual way of fertilizing plants in pots is by applying it in a liquid form. Caution is necessary, however, not to apply it too strong. Weak and often is the best method and has the most beneficial results.

On the afternoon of warm days it is a great benefit to growing plants to have their foliage sprinkled. It helps to wash off the dust and keeps the plants in a healthier condition. Cleanliness with plants is a great source of success. An occasional sponging of the leaves frees them of insects and gives them a chance to breathe more freely than when coated over with dust. Fresh air must be supplied to plants, as well as animals to insure good health. On all good days give enough to change the atmosphere of the room. It is best given at the top of the window, as a circulation is then made without causing a draught, which, under all conditions, avoid. Rather then have a cold draught rushing through the plants, keep the window closed, and there will be sufficient air admitted through the laps to benefit them.

A tablespoonful of ammonia in two quarts of water is strong enough for the most vigorous plants and has a wonderful effect upon most all kinds of plants. Guano is an excellent fertilizer, but has to be used with caution, as a little too much may destroy the roots of the plants to which it has been applied, and may lead people to look for the wilted condition of the plant to some other cause, and apply remedies which will prove more destructive than beneficial. Just sufficient to slightly color the water is strong enough to use guano in a liquid form for plants. Soot makes excellent manure for plants in pots, if judiciously applied. It gives a bright green tint to the foliage and deeper colorings to the flowers. On some kinds of plants—such as hydrangeas—it changes the color of the flowers altogether. It is difficult to mix soot with water, if put into it loose; but when tied up in a cloth, and then soaked in the water, it can be pressed out and made as strong as wanted. Only very small quantities should be used. If applied strong it destroys the roots of the plants, like guano. Pigeon and hen manure make good fertilizers for plants; if coal be mixed with it, the smell is mostly destroyed; but caution has to be observed in its use, as it is like guano, very strong, and injurious to plant-life when used too strong.

All plants grown in greenhouses and windows are liable to insects of some kind. Some kinds of plants are more subject to the attacks of insects than others, and some kinds of insects are more easily destroyed than others. The best preventive of insects of all kinds is thoroughly syringing the plants that endure it without injuring the foliage. Some kinds of plants, such as the fine-leaved begonias and Chinese primroses, which are both very impatient with water overhead, are not liable to the attack of any kinds of insects. A dry, warm atmosphere is just the condition for insects being produced in large numbers, and is a condition unsuitable for plants thriving in. It is generally unhealthy plants that

are first attacked by insects. Plants in a vigorous healthy condition repel them to a great extent.

Green fly is the greatest pest in the way of insects we have. It increases so fast that in a short time after the first of them appear they are to be found in large numbers. Fumigating with tobacco is the most effectual remedy for the destruction of this pest; in fact, in our green-houses, is the only remedy. As soon as they appear, place the plants under a barrel and place some burning tobacco stems beside them. As soon as the barrel gets filled with smoke, lift out the burning coals, to prevent too much heat, as it is heat, and not smoke which destroys the leaves of tender plants. Heliotropes, salvias, and similar plants are easily hurt with the smoke. Caution is, therefore, necessary, if any of them get covered with fly, that smoking be done gently. On the morning after fumigating, give the plants a good syringing, to clean off the insects. The foliage of plants to be fumigated should be dry, as they are easily injured when wet.

Red spider is the worst insect in number which gives us trouble, and is produced where the atmosphere is too dry and warm. In an atmosphere where plants are growing vigorously, this insect is never seen. To get rid of it, frequent syringing is needed. It appears generally on the under side of the leaves; is a small red insect and is not often known to be on the plant until the foliage begins to get discolored by its ravages. Rose leaves, when attacked by it, get brown on the under side and finally drop off. The thrip is an active little fellow, generally doing his depredations on the under side of the leaves. It is a long and slender creature, with very narrow wings, and proves very destructive when it once gets a foothold. Fumigating with tobacco and washing the leaves are the best remedies for its destruction.

Scale or coccus is a common pest on a good many plants, especially hard-wooded kinds, like oranges, oleanders, camellias and many others. It is to the superficial observer, stationary, but spreads rapidly, there being a great many kinds of them—white, brown and black. The white is the one which gives the most annoyance, being the most difficult to wash off, which is the only remedy for getting all the kinds destroyed. Use in the water, when washing them off, plenty of soap and tobacco juice. Mealy bug is a loathsome looking creature, something like the above, but has a mealy covering looking like down. Washing and brushing with a soft brush is the best way of getting rid of them.

Plants which are regularly washed and syringed are never much infested with insects of any kind and if any of the kinds mentioned above first make their appearance destroy them by this means before a foothold by them is secured, and there is but little trouble in keeping them from doing much injury.

Worms in pots often give considerable annoyance to plant growers but a little lime put into the water will expel them. Soot answers the same purpose.—*Ohio Farmer.*

## CORRESPONDENCE.

## SEEDLING PEACH.

You ask, concerning those peaches I sent by mail, "Is the tree more hardy than other sorts?" I think it is; it never has winter-killed, except winter before last the tips of the limbs in some places were hurt, but the cause was unusually late and heavy growth: The limbs grew three feet and more, and that winter the thermometer went down to 25 degrees below zero here. The tree stands in front of my back kitchen, facing the south, consequently it blossoms earlier than it otherwise would; and last spring it was in full bloom when we had a heavy white frost covering the grass, but it come out all right so you can judge of its hardiness.

—MANNING BROWN, *Collingwood*.

## MEETING OF THE AMERICAN POMOLOGICAL SOCIETY.

Thanks for the HORTICULTURIST, which I always peruse with pleasure. This writing is to state that I intend to bring the American Pomological Society to Boston next September, and I desire that this appointment may not conflict with the days of other societies.—M. P. WILDER, *Boston*.

## ENSILAGE.

This subject is attracting considerable attention among leading agriculturists in the United States, and many are very enthusiastic over the advantages which this system of curing green fodder is thought to possess over the usual method of preserving it by drying. In order to preserve fodder by this process it is necessary to construct what is termed a "silo," which is a pit or vat, whose sides and bottom are made water tight, with the top open. The sides or walls must be perpendicular, so that there shall be nothing to prevent the settling or compressing of the fodder which is put in. It is built near the barn, sometimes in the basement of the barn, for convenience of feeding. The forage, which may be clover or grass, corn sown thick or millet, Hungarian grass or rye, is cut and immediately run through a fodder-cutter, which cuts it into half inch lengths or less, and this is thrown into the silo and carefully distributed and tramped so as to pack it close, particularly at the sides and corners. When the silo is filled, the fodder is covered with about six inches of straw, and over this is laid planks, so cut as to fit the silo. Upon the planks weights are placed, stone, iron, boxes filled with sand or earth,—in short, anything that will cause a constant pressure upon the contents of the silo, following it down as it settles.

It is claimed by many who have tried this method of preserving fodder that it is cheaper in the long run than the old method of drying or making into hay, that the nutritious qualities are better preserved, and that consequently cattle thrive better when fed upon it, and that it more nearly resembles green fodder, so that cattle eat it more easily than they do the dry. Mr. Henry R. Stevens, of Dover, Mass., has been testing this method, and so well satisfied is he of its great superiority, that he has given his experience in the form of a little treatise on the subject, in which he gives not only his own experience, but also that of some twenty others, with ample directions based upon his experience. At page 49 he gives Professor McBride's opinion of the advantages of feeding ensilage over the same fodder in a natural or green state, who had experimented at the University Farm in Tennessee with about seventy tons, who reports that it was eaten greedily by all kinds of stock, and he concludes that it is fifty per cent. cheaper than hay. This little treatise costs only fifty cents, and to it we refer our readers for full details, believing that the subject is worthy of attention especially by those farmers who are raising stock or engaged in dairying.

---

### TREE PLANTING AND PUBLIC MORALS.

The real text of my subject is a little different from my caption, and reads "our growing horticulture and its effects upon public morals." Perhaps, at first sight you and many of your numerous readers may be considerably puzzled to see the connection, and ask, Where is the relationship between tree planting and public morals? But upon a closer inspection, and a more intimate acquaintance we think that an obvious relationship does exist between the two seemingly incoherences. It is sometimes so as you know, in other matters of great importance to the general weal; the relationship between sobriety and success in life, for instance, is not very clearly discernible by some of our fast young men, who are breaking through all friendly restraints and living questionable and fast lives, thinking readily to attain ultimate success and outstrip their sober, but slower companion, who will most certainly come off victorious in the end. "Our growing horticulture" is a text of importance to the best interests of the country. I see among the items of your Forest cotem. that the delivery of fruit and ornamental trees at this station, this season, has been enormous, and he estimates the trade in his vicinity alone at \$2,000 annually. This, for such a locality, is a vast sum to contribute to the planting every year, and it may be taken as an idea of our growing horticulture generally. This growing condition of our horticulture, is not alone indicated by the amount of trees bought and planted by our people, but also by the



beautiful locations of rich and valuable soil bought, laid out and prepared for horticultural purposes, by the flowers and flowering plants and shrubs bought and tended solely for purpose of decoration and ornamentation. Only just quietly compare for a moment this state of things of the present time, with those of a few years ago and the term "growing," we think, but faintly express the contrast, and but faintly indicates the strides of our modern horticulture. Now Sir, what do you honestly think will be the legitimate effects of this wonderful horticultural progress upon our people? Where will these effects be most readily and distinctly read and deciphered? In proportion, as the private or individual morals of people are affected for good or ill, such is also the effect upon their public morals; for in morals as in the concentrated forces of the ocean, the whole is made up of its individual parts. The family that is carefully, and industriously educating itself in each of its members, in the ennobling pursuits of horticulture, have little or no time for the corrupting influences of the street corners or the vulgar gatherings of vile centres. The youth, be they male or female, who are tending a garden under good direction and advice, have few hours and fewer quarters to spend in scenes of gambling and the corrupting associations of our public inns. Only drive through a section of our country, and take particular notice of the elevated condition of their horticulture, their extensive orchards of fruit trees, their live and beautiful hedge rows, their beautiful thriving streets, and their extensive well kept home gardens, judiciously tended, and filled with nourishing and health-giving vegetables and fruits, and above all considered in point of morals, their rich and splendid collection of living flowers tended by soft and delicate hands, the whole is a voluminous index of their public morals, and of their social life. Among such a people the devastations of degradation is not so much as known, and the withering, blasting influences of vice are never felt, because these have plenty better else to do. Our most sincere and earnest hopes are that these being influences for good, these cords of our national home life may be greatly extended, until our whole country in all its parts shall be under their protecting, refining, and elevating power. Now sir, as I hear you have the Temperance Act of 1878 in force in your county at present, prohibiting the public sale of useless intoxicants, is it not think you very desirable and even probable that much of the valuable time and money worse than wasted on these enervating commodities should be directed in the peaceful paths of horticulture. People will have more time, more money, and we are sure more ability to attend to these better things, and the fruits will be to them ennobling, enriching, and life giving. Let us earnestly work and hope for better days for horticulture in our fair land.—B. GOTT, in *Advocate-Adviser*.

**CULTIVATING YOUNG ORCHARDS.**—If you have money to fool away, seed down your young orchard to clover or timothy, or sow a crop of wheat or oats. If you want the trees to thrive, cultivate well till they are seven to ten years old. Spread ashes, manure, or salt broadcast. Stop cultivating in August, weeds or no weeds, and allow the wood to ripen thoroughly.