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The Canadian Horticulturist.

VOL. IV.]

JULY, 1881.

[No. 7.

THE WISTARIA.

This is one of the beautiful twining shrubs which has been brought out of nature's wilds, and which, planted in our gardens and about our dwellings, has taken kindly to its new surroundings. It is found both in Asia and America, in temperate latitudes. The American species, *Wistaria frutescens*, is found in moist soils in the Virginias, Carolinas and Southern Illinois. The Asiatic is found in China and Japan, and is known as the *Wistaria Sinensis*. The American species blooms from July to September; the flowers are pea-shape, borne in terminal racemes, of a bluish-purple color, and pleasantly scented. The Asiatic was brought from China to England in 1816, and from England to America. It climbs very rapidly, and will soon cover a very large space. Mr. Fortune mentions a famous patriarch which he saw in Japan. The trunk measured seven feet in circumference at three feet from the ground, and the branches covered a trellis sixty by a hundred feet. Many thousands of its long racemes of purplish flowers were hanging in graceful profusion from its branches, giving to the plant a most brilliant appearance. One of the racemes which he measured was three feet and a half in length.

There is an old hemlock tree at "Cottage Place," Germantown, Philadelphia, Penn., eighty feet in height, which is covered with a couple of Chinese *Wistarias*, the stems of which are about two feet in circumference.

It grows well in some parts of Ontario, and doubtless will in all parts where the peach can be successfully cultivated. There is a fine specimen that adorns the verandah in front of the residence of one of the members of the Fruit Growers' Association in St. Catharines, Mr. James Taylor's, which is a most beautiful object when laden with bloom. How far to the northward its successful cultivation can be carried will only be ascertained by actual trial. We look with interest

to the planting that is now going on in the experimental grounds of the Ontario School of Agriculture at Guelph, expecting that in a few years the reports will very materially advance our knowledge of the hardiness of many useful and ornamental trees and shrubs.

There are several varieties of these *Wistarias* now in cultivation. Of the Chinese there is a white variety, differing in no material particular from the other except that the flowers are white instead of blue. Another variety was introduced from Japan in 1863, having perfectly double flowers, deeper in color than the single, and the racemes somewhat longer. There is also a white variety of the American species, and one that is supposed to be a hybrid between the American and Chinese species, called *Wistaria Magnifica*, and another known as *W. Brachybotris*, brought from Japan, which differ from the type mainly in the shade of color of the flowers.

We are indebted to Mr. James Vick, of Rochester, N. Y., for the opportunity of presenting our readers with the colored illustration of a raceme of this beautiful flower which adorns the present number. It is a very truthful representation, and does great credit to Mr. Vick's accuracy and taste.

SOWING FLOWER SEEDS OUTSIDE, AND BEDDING OUT.

BY N. ROBERTSON, GOVERNMENT GROUNDS, OTTAWA.

Sowing outside should never be done sooner than the middle of May, and not then unless the weather is warm and vegetation going on rapidly. If you sow when cold weather prevails many of your seeds will rot and perish. A very large proportion of the flower seeds sown outside are never seen, and the general cry here raised is "bad seeds." The principle of success in this is much the same as in the hot-bed, but with this difference: The seeds are thrown carelessly in the ground, and nature is expected to do the remaining portion of the work, but she will not unless you adhere to her rules. A large portion of flower seeds are so fine that unless care is taken in the sowing of them the attempt will be in vain. The general practice with amateurs is to scrape away a little of the surface and sow the seed, and draw the soil back and leave it there. Often the soil is rough and hard below, and it is almost the same as if the seeds were thrown on a road

and covered over. Even these seeds would germinate if continued moisture is afforded them, but the roots being unable to penetrate the hard bottom soon die. Then see that the soil is loose below and rich enough, but remember that a very rich soil is not advantageous to have a good show of flowers, often the reverse; it will give you plenty of foliage but few flowers. Draw a portion of the soil away where you intend sowing, regulating the depth according to the size of the seed. For small seeds use a sieve to get a little fine soil on which to sow the seed; sow and cover with the sieve. Many small seeds are lost through insufficient covering as well as being too deep. Large seeds, such as sweet pear, lupins, &c., do not require this care, as they will vegetate under most unfavorable circumstances provided moisture enough is retained.

After sowing the seed the soil should be kept moist. If the ground is dry it would be better to wait for a shower of rain, and then do not let the soil dry up until the seeds are well up over the ground. Shade the land or you will be unable to do it properly. Avoid watering if you can, (as this makes the surface hard and crusty and more susceptible to drying up), if a fair moisture can be retained without it, but without shade it is impossible to succeed during our bright sunshiny days, for if allowed to become dry at a certain stage your seed is lost forever. Shading may be done by a bit of board raised on one side so as not to press on the soil, but some open substance such as spruce branches is better, as with anything close you will have to remove it when rain falls.

Bedding in its proper sense is scarcely a subject fit for amateurs to try unless they have the convenience of a hothouse, as it requires several thousand plants to fill a small bed, costing more than most persons would care to expend. I saw an article in one of our Canadian newspapers sometime ago recommending amateurs to try and imitate one of the most intricate beds done by the most expert gardeners at the Crystal Palace, and then said by many who saw it to be not very satisfactory. This bed took some fourteen thousand plants to fill it, and a small bed will take several thousand to carry out a simple design. To the amateur beginner I will give a bed filled in with plants that will not cost more than one dollar for seed, and few beds will be more attractive, and it will be sure to elicit much admiration from those who see it. I would suggest a circular bed of ten feet diameter,

(beds without corners are easiest.) Divide this into quarters by running a line both ways across the centre. Fill each quarter alternately with red and white phlox drummondi, that is two of white and two of red, this with a border of *Tagetes* (yellow) will make a handsome bed, and the plants are of the easiest raised. In planting out save a few plants of each color, and when the plants in the bed begin to flower, if any appear of a different color from what they are intended, remove them carefully and replace them with some of the reserve. The best way in which to do this is to take out the wrong plants in the bed, and dig a hole to receive the new ones, disturbing the roots as little as possible, and showing no trace of the exchange. If you plant close you may be able to remove a few plants and spread the others over the space.

Another plan for a bed is to plant in what may be termed ribbon fashion. Plant around the bed in bands of not less than eighteen inches, and in the space between you may fill up with any colors that will form a good contrast. You may use a white as often as you like, having a dark between, or a red, having a light between. Put a border around the outside of some stiff, erect growing plant, such as dwarf blue ageratum, which you can always trim a little on the outer edge to keep it from falling over the walk or grass. It is well to have the lines or masses as large as possible, as when they are small and narrow they run together and lose effect. When the plants grow, peg them down, covering all the naked portions of the bed, and draw them into the form you want. Pegging down has another advantage, as it causes the plants to throw out laterals, and gives you a more solid mass of flowers, and should not be neglected.

A border that is straight gives a fine chance to show a ribbon, and may be done by the same plants in the same manner as described for ribbon bed. This kind of work can be carried out with other plants, but the phlox drummondi is the best of all annuals for this purpose, is easy to grow, gives flowers for nearly three months, is almost a solid mass of color, and rarely disappoints the grower. If anyone wants a plan for a more intricate bed, I shall be most happy to give it through the CANADIAN HORTICULTURIST.

NOTE.—We hope that our readers will avail themselves of Mr. Robertson's knowledge and experience in flower culture, and learn intelligently to beautify their homes with these cheerful gems of nature.

THE GRIMES' GOLDEN PIPPIN.

The Grimes' Golden is a western apple, and originated in Brooke Co., West Virginia. By whom the seed was sown it is not positively known, but believed to be a Mr. Crawford. This seedling was among the first apple trees produced by an American in the Ohio valley. As such, without taking into consideration the superior quality of fruit, it is worthy to become a matter of history. The many good qualities of both tree and fruit constitute it doubly so. This extraordinary apple has few equals in the catalogue of American fruit; it certainly has no superior. Taking into consideration the hardiness and long life of the tree, its habit of constant bearing, the superior quality of the fruit, together with the great length of time it is in season, the Grimes' Golden stands preeminent.

The original tree, now over ninety years old, is in the orchard of Dr. Joshua Gist, formerly owned by Thomas P. Grime, situate two miles east of the Ohio river. This orchard of seedling trees was set out by Edward Crawford about the year 1790, and by him sold to Thomas Grimes, Sr., in 1799, at which time this noted tree bore its first crop of apples. It is said it has not failed to produce fruit every year since that time. It is a choice apple for the southern market, where it is well known. As early as 1804 Mr. Grimes sold the apples from this tree to traders on the Ohio river, to be taken to New Orleans. In 1734, the year of the severe frosts from the 13th to the 18th of May, which destroyed the fruit throughout the entire region where this tree was growing, it produced a full half crop of apples. This circumstance gave additional notoriety to the tree and fruit, and scions were sought for grafting.

The writer of this, who obtained his first trees of the Grimes' Golden apple in 1838, visited the original tree June 24th, 1879, and found it in a very good state of preservation, with a fair crop of fruit evenly set over its branches. The tree is about thirty feet in height, and measures six feet around the trunk two feet from the ground. Its branches cover an area of 30 feet in diameter. Although not a very large tree, it has frequently produced between 50 and 100 bushels of fine marketable apples in a season. Soon after the original tree came into bearing the fruit was called the Grimes' apple, and sometime later on the Grimes' Pippin. After the late Samuel Wood, a noted nurseryman of Jefferson County, Ohio, commenced propagating it, he added the word golden, calling it Grimes' Golden Pippin. Although it is a legitimate member of the pippin family of apples, at the annual meeting of the Ohio Pomological Society, in 1866, the word pippin was dropped, since which it has been known as Grimes' Golden, and this name is now well established.

The tree is a strong, upright, spreading, open, rapid grower, very handsome in form, and needs little pruning; wood very hard and tough; bark dark greenish brown; foliage large, dark green and very abundant. The tree is an annual bearer, and sets its fruit evenly over the branches. The fruit is very smooth; size medium; form oblong oblate, sometimes a little angling at the crown; color light green, with numerous minute light dots when taken from the tree, but becoming a rich golden yellow when ripe;

basin abrupt, tolerably deep, round and smooth; calyx large and open; stem long and slender; cavity deep and regular; core small and closed; seeds numerous, plump and dark brown; flesh yellow, very fine grained, breaking and juicy; flavor slightly sub-acid, aromatic, rich and sprightly; use, dessert and culinary; season October to April; quality best.

—G. F. N., *Millersburg, Ohio, in Country Gentleman.*

PLANTING NUTS AS TREE SEED.

BY B. GOTT, ARKONA.

In the February number of the CANADIAN HORTICULTURIST are some questions relative to the management of nuts as tree seeds, their preparation, protection, times of planting, &c., by one Daniel B. Hoover, Almira, Ont. In attempting an answer to these enquiries I have thought that quite possibly it might be advisable to treat this very important and primary subject with some little show of thoroughness, and simply because to our certain knowledge there are many besides our Almira friend who are deeply interested in and asking substantially the same questions relative to forest tree seeds. The simple facts of the matter appear to be that there is conspicuously growing in our people a deep and widening interest in forest tree culture from year to year, and many are now asking questions relating to it that a few years in the past would have been thought insolent and vain. Well we are rather glad to see this spirit of enquiry coming to the surface, and not alone because it is the indication of a growing intelligence among the general mass of our people, but also because it is the direct precursor of growth and development in a course that beautifies and enriches the face of our prosperous and beloved country. When every man shall become concerned for his own home, and for its beautification and advantages, will shortly appear the time when our general landscape shall be attractive, and a joy and satisfaction to our people and to the stranger in our midst.

Nuts have for a long time in the past been deeply interesting to the boys of the people, those natural scavengers of our woods and fields, as well also as to the earnest and laborious collector of natural history specimens for curiosity and study. They are at the present time constantly used as food by many people, and also by thousands of smaller dependent animals of our forests and fields, which subsist only

on their carefully garnered store of well ripened nuts through our long and tedious winters. Some grow on exceedingly high and massive trees, and others on low and grovelling bushes, but on whatsoever they may be found growing they all instinctively and naturally seek the covert the soil affords them for protection and future usefulness.

The gathering of nuts for purposes of seed should be done as early as possible after their maturity, as the least possible amount of drying by the influences of the atmosphere is only injurious to them as germs of future plants. The nut gatherer must be a close and discerning observer of nature, as in the treatment and preservation of nuts some require treatment quite different from that of others. Some must be kept studiously dry and away from all outside moisture during winter, while others must as studiously have a liberal supply. Again, some must be kept cold, and exposed to frequent freezing and thawing to subdue their obstinate coverings, while others must as carefully be kept out of the reach of frost. And still again some may be advantageously planted in their seed beds in the fall of the year, while others will not endure this treatment with impunity.

But to particularize, it will perhaps be best for our purpose to make some special statements as briefly as possible relative to the management of each kind of nut for seed purposes.

English Walnuts, *alias* Maderia Nuts, (*Juglans Regia*.) Nuts ripe early in October. Dash from the trees, gather and place in thin layers on the ground, and slightly cover with damp earth to keep moist and secure from the atmosphere during the winter. In early spring take out and plant in a seed bed six inches by two feet, kept clean and protected from the severity of the sun. These nuts will not do as well in this country as our native variety, but in favorable spots the young trees will do tolerably well, although but very few are now found growing amongst us.

Black Walnuts, (*Juglans nigra*.) and Butternuts, (*Juglans cinerea*.) are native forest trees of fine proportions. Nuts ripe the latter part of October or first part of November. After they are matured and loosened by the frost or shaken down by the wind, they must be gathered as soon as possible and protected from the atmosphere, and planted early the following spring. Fall planting may also be adopted, but spring is greatly preferable, as thereby solidifying of the ground and encrustation is mostly prevented.

Hickory Nuts, (*Carya alba*, and *C. amara*,) are treated much like the preceding. The first is an exceedingly pleasant and nutritious food, and is greatly relished by both man and beast. The nuts are slow in germinating, and for a year or two make a slow and feeble growth, but with patience and care they eventually make fine trees.

Beach Nuts, (*Fagus sylvatica*,) are produced on native forest trees of noble growth. The nuts ripen in great abundance early in October, and readily fall by the influences of frost and wind. On low spreading trees they are dashed and gathered on sheets and preserved in dry sand, out of the way of frost, and sown very early in the spring in well prepared seed beds in rows one foot apart. They readily germinate, and form fine trees in a comparatively short time.

Chestnuts, (*Castanea Americana*, and *C. pumila*,) also Spanish Chestnuts, (*C. Vesca*,) and the ornamental and beautiful lawn tree, the Buckeye or Horsechestnut, (*Æsculus hippocastanum*,) are all the fruit of forest trees of deserved and growing popularity. The first three sorts are exceedingly relishable, and are much used for food. Nuts ripe in October or November, and will readily fall by the action of the wind after frost. May be gathered and kept in dry sand out of the way of frost. They readily germinate in the spring, and may be sown in rows one foot apart and six inches in the rows in a well prepared and liberally enriched bed. They may be transplanted in the nursery rows at one or two years of age, and need some protection, as they are a little tender while in their infancy.

Hazel Nuts, *alias* Filberts, (*Corylus Americana*, and *L. Avellana*,) are very popular and much esteemed for food, especially the English variety. The nuts may be gathered and stored away in dry sand out of the reach of frost, and sown as early as possible in the spring. They will thus make fine plants to be taken up early the ensuing fall. They are not much grown in this country.

Almonds, (*Amygdalus pumila* and *A. comunis*,) Peach, (*Persica vulgaris*,) Nectarines, (*P. levis*,) Apricots, (*Prunus Armeniaca*,) and Plums, (*P. Americana*,) are all related, both in nature and the treatment of their seed. The Cherry, (*Cerasus Vulgaris*,) may also be included. In the successful management of their seeds, the one essential point is studiously to prevent them from becoming thoroughly dried while exposed to atmospheric action. As soon as cleansed from their outward covering they may at once be stored away in boxes of

damp sand, and put out of the way of frost. But they must be moved at the earliest possible moment in the spring, as they readily germinate upon the slightest approach of vernal influence. In the case of *Prunus Americana*, most experienced nurserymen gather them as soon as matured, and at once commit them to the seed bed in the sure and certain hope of an early germination.

I am afraid that I am surpassing my limits in this article, but though meagerly done, I hope I have sufficiently indicated the treatment of most of the prominent nuts or hard shelled tree seeds of use in this country for purposes of germination. The subject is very interesting, and might very profitably have been treated at much greater length and consummate thoroughness, but we hope the hints dropped will in some measure at least answer the enquiries of our inquisitive horticultural friend.

BLACK WALNUT.

"Twenty three years ago Horace Everett planted twenty three acres of waste land on his farm, near Council Bluffs, with black walnuts. The trees are now from sixteen to eighteen inches through, and have been sold for \$27,000. This gives him an income of \$50.00 per acre for the use of the land."

The above is taken from one of our exchanges. It goes far to corroborate the views expressed by Mr. Thos. Beall, of Lindsay, and others, on the value of this tree, and the profit to be derived from a judicious planting of it in sections where it will thrive. Many a piece of broken land might at a small outlay be made very profitable by planting it with black walnut, chestnut or poplar, which otherwise would never yield anything to the owner.

FRUIT IN A HURRY.

This is a fast and impatient age. People want quick returns for their labor, and are not willing to wait for their gains. The impression that it will take a life-time to get fruit from a new plantation deters many from setting out trees. It certainly requires time for an orchard to come into bearing, but there is quite a variety of fruits that may be depended on to yield a speedy harvest.

The quickest return is from strawberries, and they are so easy of cultivation that it is wonderful they are not more generally grown. Set out early in spring, and well cared for, they will produce a moderate crop the

first season. They will bear in six or seven weeks from the day of setting, and if transplanted with a ball of earth adhering to the roots, will fruit nearly as well as though they had not been moved. Care should be taken to select well-rooted runners of the previous year's growth. It never pays to move old strawberry plants. The second year's yield of a new strawberry patch will be found abundant if it has been kept clear of weeds. Wilson's Albany may be depended on to give a bushel of berries to the square rod, or two quarts per day for half a month, in any year while in full bearing.

Musk melons and water melons will yield their delicious products four months after planting. They can be grown in any of the older districts of Canada, but should be started in a hot-bed. This is necessary in order to get the fruit in hot weather, when it is most welcome. But a hot-bed may be very cheaply constructed, and will be found very useful for starting other plants. Lettuce, radishes, tomatoes, cabbages, &c., may be grown around the melon plants, and as these are consumed or transplanted, room will be made for the melons to spread themselves, until finally they are left in possession of the whole bed, from which the frame can easily be removed when hot weather is fairly established.

Gooseberries, currants, raspberries, and blackberries will all bear a little fruit the same season they are set out, if permitted to do so. But it is better to defer their fruiting until the second season, from which time they will begin to bear in good earnest. Gooseberries and currants will not yield largely the second season, because the bushes will be small, but raspberries and blackberries will produce a full crop the second year.

Dwarf apples and pears are especially valuable because they come quickly into bearing. For a permanent orchard standard trees are preferable, but those who want fruit in a hurry should plant the dwarfs. It is thought by many that their precocity in bearing makes them short-lived, but they are well worth cultivating for immediate results. A nurseryman in Western Ontario, wishing to read a lesson to a resident in his village who was too impatient of results to plant an orchard, offered to set a dwarf apple-tree in his garden on these conditions:—that he, the nurseryman, was to have charge of the tree the first summer, and receive in payment the sum of ten cents for every ripened apple it produced. It bore seven apples, bringing the nurseryman seventy cents, twice the usual price of a dwarf apple tree. In ordering dwarf trees with a view to quick-fruiting, it is well to let the nurseryman select varieties, as some bear much earlier than others.

Grapes afford fruit soon, usually beginning to bear the second and third year from planting. There is now a long list of them that may be selected from for out-door culture, but they vary in the time of ripening, and while there are many localities in Canada where any and all of them may be depended on to ripen their fruit, there are others where only the earliest kinds will come to maturity.

A good supply of the fruits that have been enumerated will furnish a family with these wholesome luxuries in a comparatively short period from their entrance on new premises. But while due attention is given to these, by all means let an orchard be planted, that ample provision may be made for the wants of the future.

LINDENBANK, in *Montreal Witness*.

EXPERIENCE IN PEAR CULTURE.

BY W. MCKENZIE ROSS, CHATHAM.

We find that the pear was common in the earliest times of the Romans; it was common in Syria, Egypt, and Greece. Virgil mentions pears which he received from Canton; Pliny describes the varieties in cultivation in his time as being numerous, and mention is made by the Emperor Tiberius of most delicate and agreeable pears.

The pear is not a native of America, but was brought from other continents. We read of its growing wild in some parts of Europe, Asia and China. It was brought to great perfection by such men as Van Mons, Knight, and many others of the present day. But I am not asked for the history of the pear, but the result of my own experience with it. I shall therefore begin with the little Amire Joannette, which yielded in 1879, being planted eight years, standard, 2½ bushels, which were sold for 12½ cents per quart, or \$9.00. In 1880 my sale book gives it credit for 64 quarts, and sold for \$8.00, besides a few quarts for the use of the house. It ripens about July 15th. I keep the soil clean and rich around it.

The next in order is the Doyenne d'Ete, which ripens here about the 20th July, and sells freely for 12½ cents per quart. It grows well either as standard or dwarf, and is a most delicious little pear. The skin is clear yellow marked with small dots, and red next the sun; flesh white, melting, very sweet and juicy.

Beurre Giffard comes next, and is much larger than the former, with a greenish-yellow red next the sun. Flesh white and most delicious, and the fruit sells here for about 10c. per quart. The tree is a slender grower, but healthy, hardy and productive. It is ripe here about the last of July.

The Bartlett is a splendid pear. The tree grows upright, with straight yellow shoots. Skin smooth, yellow, with a blush on the sunny side; it is sweet, juicy, with a highly perfumed vinous flavor. It is ripe here from 25th August to 10th September, and sells for \$2.50 per bushel.

The Clapp's Favorite is my next,—a most gorgeous pale yellow pear, marbled and splashed with red and light brown. Flesh white, fine grained, juicy, melting, buttery, rich, with sweet perfume. I can see in imagination the lovely baskets of this beautiful fruit even now

before me. The tree is a rapid, straggling grower, with large shoots; it stands the frost and severe weather well; the bark is a yellowish-brown color, and is clean and healthy. Succeeds well as dwarf or standard. The fruit should be gathered some days before ripe; it will not keep long.

The Ontario Agricultural Commission after finishing their duties here paid me a visit, and expressed their delight while looking at this noble pear, as well as others that I may mention hereafter, and with my mode of cultivation. With the liberal aid given by the Ontario Government, the Fruit Growers' Association ought to play a conspicuous part in this great land of my adoption. British North America ere long will be one of the greatest countries under the sun, and one of the most valuable possessions of the British Empire. Canada is said to be the brightest gem in the British crown. Itsself of richer value, it will be guarded with all the power, wisdom and love of a family heirloom. On these grounds, therefore, we can never cease to be affected with everything that affects the parent state.

I fear that I have trespassed on your valuable space, and perhaps allowed my mind to run into a strain foreign to the HORTICULTURIST, but being one of its first Directors I trust you will forgive me. It is this little monthly that is always welcome to my home, and has my best wishes for its future usefulness.

ON PEAR BLIGHT.

BY PROF. E. W. CLAYPOLE, YELLOWSPRINGS, OHIO.

In the number for April, 1881, appeared a useful and rational letter from "Rusticus" on pear blight. "Rusticus" records his experience, and then clearly and logically reasons from it to its cause. He does not jump to the conclusion that wood ashes are a specific remedy for this the most deadly enemy of the pear and apple in many parts of the country, but suggests that the ashes may improve the condition of the tree, and so make it less susceptible of injury from the blight. The fire-blight is now believed to be a parasitic growth in the soft bark of the young twigs, which disorganizes the tissue and destroys the starch; at least this is the opinion of Prof. Burrill, who has made a special study of the subject. Now it is well known that though

such parasites often attack perfectly strong and healthy plants, yet their attacks are more common and more deadly on such as are weakly and out of condition. Hence the more rational mode of treating all such enemies is to tone and strengthen the system of the plant, so as to enable its sap to resist the decomposing action of the ferment. Now the potash which wood ashes contain is well adapted to do this. In fact the exhaustion of available potash in the soil is in my belief one cause of the failure of old orchards, if constantly cropped, to keep up to their former standard of yield; and here, by the way, lies one of the physiological objections to the constant cropping of orchards as practiced in Canada and the States. But I cannot enter now upon this point.

I should be very glad to hear further from Rusticus, or any other of your subscribers, in reference to this topic. I should like to hear of others who have tried ashes. After the winter rains and snows are over, the ground is too dry on the surface and the rains too occasional in most seasons to leach the ashes and carry the potash far enough into the ground to accomplish its purpose. Moreover, the fire-blight shows itself and does its mischief very early in the season. It is consequently too late now to expect much from Rusticus' remedy this year, but if any of your subscribers will go to the small trouble and expense of watering some of their best trees with saltpetre dissolved in water at the rate of one pound to a gallon, and put about three gallons to every tree, washing it in with as much more water as they think necessary, I should be glad to hear from them during the summer what effect if any they have observed.

PREPARATION OF NUTS FOR PLANTING.

BY THOMAS COATES, MILTON.

In the February number of the HORTICULTURIST you ask some of your correspondents to answer Mr. Hoover's question as to the best way in which to prepare nuts for planting. The answer is very simple,—they need no preparation. Take the Canadian walnut for instance. As soon as the nuts fall from the tree gather them up just as they are with the hulls on, and plant in a trench three or four inches deep, about four or five inches apart, and cover them up. If

the nuts are well matured they will come up as thick as blackberries. The Canadian walnut is a greedy feeder, and should not be planted within speaking distance of fruit trees. The popular fallacy that the moisture distilled from these leaves after dew or rain is poisonous to everything on which it may fall is an absurdity. Let anyone convince himself by taking up a walnut root an inch or more in diameter, when he will find it literally covered with fine fibrous roots like the hair in a horse's mane. That is the secret of the poison. It is an old saying, but probably a little exaggerated, that five or six walnut trees planted through an orchard will destroy it. They make beautiful shade trees, and are very easily raised.

THE BEN DAVIS APPLE.

The Ben Davis is the most profitable winter apple, the most saleable, and most profitable to the orchardist, and sells more readily to dealers and to the people, and when well grown brings a greater price after mid-winter than any apple grown west of Michigan; and that it is selling now this mid-winter as readily and for as good prices in all the large towns and cities in the west and south-west as the best Michigan and Northern New York apples! One could get certainly as good a price to day in St. Louis, and sell them more readily, for a thousand barrels of first-class Ben Davis as he could for the same amount of first-class Spys, Greenings or Baldwins. And what is very strange, people who appear to have a good share of common sense buy them year after year with satisfaction. This is no guess work; we have been in the market year after year, and seen it with our own eyes, and the market reports where apples are quoted by name will prove it. And all our large apple growers will give their evidence that we tell the truth. The apple is large and very handsome; the tree is very hardy, healthy, and productive, a beautiful grower in both nursery and orchard, and adapts itself to nearly all soils and locations. It is placed among the most profitable from southern Georgia to Maine; it is one of the easiest of apple trees to propagate. But for the man who knows what a *good* apple is, it is neither fit to eat nor cook. We have for many years past looked anxiously for an apple with all the good points of the Ben Davis, among the seedlings brought out from year to year, that had the qualities so sadly wanting in it, but as yet have failed to find it. The fruit show at the meeting of the State Horticultural Society, at Warsaw, last month, gave us some hopes that the day is not far distant when the Ben Davis would be superseded by some of the seedlings there shown. They all appeared to be very handsome and of extra quality for all the purposes that apples are used for. The Salome (not quite large enough) by E. C. Hatheway, of Ottawa, Ill.; the Illinois Beauty, by A. H. Gaston, of Lacon, Ill.; one shown by Mr. Worthen, of Warsaw, Ill.; the Wytche, of Warsaw, and

another seedling from the same town were all very fine apples—all natives of this State, and all attracting marked attention in good fruit regions among men thoroughly posted on apples for money. But time and trial can only tell their future. A score of years have been industriously spent in trying to supersede the Wilson strawberry and the Concord grape, and they rank no higher among good fruits than does the Ben Davis. Yet today they stand without a peer—for what? *making money*, and that is what we are all after.—*Prairie Farmer*.

CORRESPONDENCE.

LETTER FROM MANITOBA.

I have been nearly six years in Manitoba now, and am very much interested in all that pertains to fruit raising and forest tree culture, and any information I can give you on these two subjects, I would be most happy to afford you. So far, I have had very fair success with my small fruit (excepting gooseberries), but with apples I have not been so fortunate. The first ones I planted I obtained from Rochester, N. Y., and they died after I had had them three years—sun scalded. I planted out last spring six Wealthy, six Fameuse, six Northern Spy, and six Red Astrachan, besides a dozen of crabs, and half a dozen Early Richmond cherries, and I hope to have better luck with these. I have planted a willow grove to the west of my little orchard, a single line of willows on the south, and have a belt of bush on the north, so they are only unsheltered on the east. We have plenty of wild gooseberries, currants, strawberries, raspberries, plums, and a sort of high-bush cranberry, about the size of a Red Cherry currant; and I am going to try the effect of cultivation upon some of these. I planted out a number of raspberries from the bush, and the result was very encouraging, for some of the canes fairly broke down with the amount of fruit on them. We have plenty of wild grapes, and I am going to plant some tame ones. I have two Janesvilles heeled in, and will get some Champions and Moore's Early. Perhaps by cross-fertilizing with some of our native grapes, I may succeed in obtaining a variety perfectly hardy, and adapted to our somewhat peculiar climate. Late spring and early fall frosts are the worst obstacles that fruit raisers has to contend with here, but I believe that if our people went into tree-planting as they ought to do, that our extremes of climate would soon be modified. They could not succeed in raising apples, &c., on the prairies of Iowa, until they planted shelter, and I think when the people of Manitoba go and do likewise, that we will be able to raise many varieties of fruit that we have to import at present. We have one advantage that many parts of Ontario do not possess, viz: the soil does not "heave," and that is something for the Manitoba horticulturists. I have been trying, as far as my limited ability would allow me, to get our people to take more interest in beautifying their places, and adding to their comfort, by going in wholesale for tree planting.

—H. P. B., *Thornhill*.

MY EXPERIENCE IN FRUIT CULTURE, &c.

Some seven or eight years since I got 150 good pear trees, and all lived, I believe, but one, until about 4 years ago, when the blight took some of them. The trees were all true to name, which cannot be said of a great number of trees planted; nearly all of them have fruited; I have also about 350 plum trees planted out, besides a large number of apples. This part of the country is a good section for fruit, but we are troubled with the insect enemies as well as others, two most troublesome being the codlin moth in the apples, and the little turk in the plums. I don't consider the black knot of much consequence if it is watched and kept down, but too many let it alone, and I am afraid the act for its destruction is just like the thistle act has been, almost a dead letter. If I see any black knot on the stock or large branches I apply spirits of turpentine with a small brush, it kills it very soon, and does the trees no harm. I have proved this remedy time and again. If it appears on the small branches cut off and burn.

Mr. Hood, of Barrie, contributed a very good article on the Berberry in the April No. of the last Vol. of the HORTICULTURIST; but he seems not to have had much luck in raising it from seed. My intention some years since was to go on a farm, chiefly to cultivate fruit, and to grow some live fences, and knowing that Berberry would make a good hedge plant, I saved the seed in the fall and put it in a box mixed with earth, left it exposed to the frost; and in the spring, early, sowed it in rows, so that I could hoe it after it came up. My soil was a warm gravelly one. In the spring it came up by the hundreds, although I found some did not come up till near fall. It grew very fast, but out on the farm, which is rather a cold clay loam, it does not seem to make much growth, so I think it more adapted to a light soil. In my opinion it is a beautiful as well as a useful shrub, either grown in hedge or single.

I have been a subscriber for some years, and have all the Reports, which I value very much. I hail each number of the HORTICULTURIST with pleasure. When I get the last No. of each year, I pull off the covers cut out the name, date etc., and paste on the back, so that I have now three neat volumes. The colored plates also adds much more to the book. I think your subscribers have a big dollar's worth every year.

WALTER HICK, *Goderich.*

QUESTION DRAWER.

The codlin moth had been very severe in some localities, while others are only slightly affected. I believe my garden orchard was injured more than my neighbor's. Is it because well manured and worked well? Well underdrained? How would it do to work the ground in the frost season around the apple trees?

We have not been able to find that the larvæ of the codlin moth at any time enter the ground, and therefore can not see that the condition of the soil has anything to do with the presence of the codlin moth.