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THE
CANADIAN HORTICULTURIST,

PUBLISHED BY THE

FRUIT GROWERS' ASSOCIATION OF ONTARIO.

VOLUME III.

EDITOR - - P. W. BEADLE.

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The Canadian Horticulturist.

VOL. III.]

JANUARY, 1880.

[No. 1.

THE NIAGARA GRAPE.

It is one of the interesting duties of the CANADIAN HORTICULTURIST to keep its readers informed as fully as possible concerning the new fruits that are being brought to notice. To announce to the horticultural world the advent of a novelty, however valuable, is not the whole duty of those who are supposed to stand on something of vantage ground with regard to the character of the new comer, but the rather, impartially to set forth, so far as lies in their power, its true character. And this is verily not always an easy task. Those who have an interest in bringing out the new beauty have a tongue only for its excellencies and none for its defects. Besides, there is a charm about any new thing, and especially a new fruit of any merit, that throws a golden light all around it and upon it, so that we see it and think of it not in the soberness of the clear noonday, but in the mystic haziness of a lovely twilight.

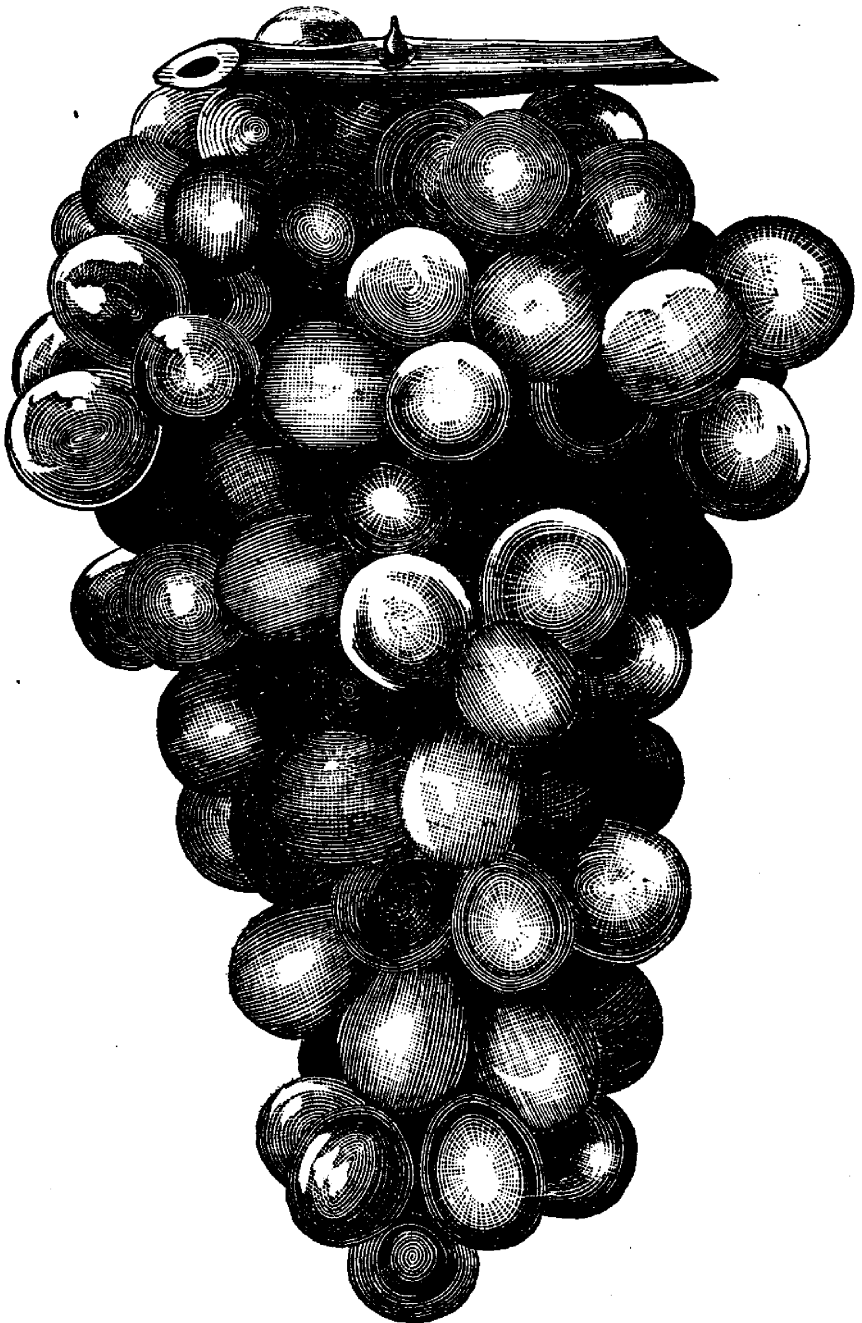
Just now there is a rush of white grapes to the front, each claiming the attention of the planter, and each championed by those who are interested in its dissemination. This creates a stir among the growers of grape vines, and fills the air with the notes of preparation for a vigorous campaign, in which everything will be tried that ingenuity can devise to place the new vines profitably. It is just at such a time as this that the honest discharge of duty to our readers is especially valuable to them, and yet difficult of performance, for the most honest intentions may be thwarted by error in judgment or by lack of knowledge of all the facts upon which an intelligent judgment can be based. Yet such have been our opportunities during the past season of seeing and testing the leading competitors for popular favor, that we shall venture to give our readers the opinion we have formed of the one whose name stands at the head of this paper, believing that we shall not lead them far astray by these remarks.

The history of a new fruit is always interesting, and often helpful in forming an estimate of its probable character and worth. The

Niagara Grape was raised by C. L. Hoag, of Lockport, New York, from seed of the Concord sown in 1868. In 1872 it bore fruit of such marked excellence that he resolved to test it more fully. Having propagated a few vines, he distributed them at various points for trial, and such was the uniform quality of the fruit, and vigor and endurance of the vine, that he decided both to plant and propagate it largely. At present he has a vineyard of several hundred vines, just beginning to come into bearing. No plants of this variety have been as yet offered for sale, but Mr. Hoag is now propagating it extensively, and in due time it will be in the market. The vine is an unusually strong, vigorous grower, as we had ample opportunity of observing when passing through Mr. Hoag's young vines, while the leaves are large and leathery, well calculated to endure our sudden alternations of temperature, and resist the attacks of mildew. We were not able to find a leaf that showed any symptoms of suffering from any cause whatever. What extremes of cold the vine is able to endure unharmed, and hence how far to the northward it can be safely planted, it is not possible to say without more extended trial, but the early ripening up of the wood, which was a marked feature, gives promise of hardiness, and leads to the expectation that it will endure without injury the severe frosts of our higher latitudes.

The fruit is well represented in the cut which is here given; drawn from nature, without any attempt to stretch the truth. As will be seen, the bunches are of good size, and very compact. The berries are of the same size as the Concord, and when perfectly ripe of a light greenish amber color. The skin is tough, does not crack, so far as we can discover, and seems likely to bear handling and carriage unusually well. The pulp is soft, juicy, sweet, of good flavor, with a little touch of that peculiar muskiness which shows its American origin. The fruit begins to ripen with the Hartford Prolific, and will continue to hang on the vines not only without injury but gradually improving in sweetness and richness until hard frosts indicate the near approach of winter. This shows that it has no tendency to drop from the bunch. At the time of our visit the Hartford Prolific was just being cut for market, but we are confident they would have found but few purchasers had as many baskets of the Niagara accompanied them.

We shall be very much disappointed if this grape does not take the same place among white grapes as the Concord has taken among



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the black. Everything about the vine indicates constitutional vigor, health and hardiness. Its tough, leathery leaves, strong, well ripened wood, endurance of all extremes and sudden changes in temperature; these tell of an adaptability to our climate that gives promise of successful cultivation over wide areas of territory. Even the flavor of the grape is indicative of vigor of vine; not delicate, like the Allen's Hybrid, and showing the weakness of the foreign blood, but pronounced and decided as purely of American origin. Canadian grape growers, and especially those who grow grapes for market, will do well to keep this variety in mind, note what may be said of it by disinterested parties, and give it a trial when it is offered for sale.

RECOLLECTIONS OF A RECENT JOURNEY SOUTH.

BY WM. SAUNDERS, LONDON, ONTARIO.

(Continued from Vol. 2, page 151.)

On Monday afternoon, December 2nd, the members of our party were ready for their trip towards the interior of Florida. Notwithstanding that mosquitoes were a little troublesome at nights, we had enjoyed our rest at Jacksonville, and were now eager to continue our journey. The temperature was most agreeable, the air balmy, and the sky clear and bright. We left Jacksonville about 2 p.m., and steamed up the river towards the south. The St. Johns flows, unlike any other river in the United States, directly north, for over three hundred miles, when turning abruptly to the east it empties into the Atlantic. Its whole course is through a very level country. In many parts the river is from five to six miles wide, and for the first hundred and fifty miles is in no place less than a mile in width; in point of width it is the largest river in America, but its waters are very sluggish. Many of its tributaries are navigable for a considerable distance by small steamboats. Large steamers ascend as far as Pilatka, a town of over a thousand inhabitants, seventy-five miles above Jacksonville, and beyond this smaller vessels run to Enterprise and up the Ocklawaha river to Leesburg.

Our ride from Jacksonville to Pilatka was a very pleasant one. We touched at several points of interest, including Mandarin, where

Mrs. Harriet Beecher Stowe spends her winters; Green Cove Spring, a place noted for the efficacy of its mineral waters; Picolata, one of the earliest Spanish settlements in America; and Tocoli, the terminus of the railway leading to the ancient city of St. Augustine.

The number of cattle constantly in the river along the shores attracted our attention, and we soon learned that their business there was to feed on the succulent growth at the bottom, as the land along the shores was too poor to furnish them with sufficient sustenance. It was a novel sight to see them standing hour after hour in the water, dipping their heads and necks underneath, and tearing up the weeds at the bottom. As might be expected where fodder is so scarce, milk is also very scarce and dear; we were told that a quart per day from each cow in the herd was a good average yield. Pigs also were frequently seen in the water on the same errand, sometimes so deeply engaged that nothing but the ridge on their backs could be seen above water, excepting when they lifted their heads to breathe. The river banks were wooded chiefly with live oaks and pines.

It was dark before we reached Pilatka. Here we entered another smaller boat, the *Tuscarvilla*, in which we were to ascend the Ocklawaha river. Having taken in a good supply of oranges and other necessaries for our three days trip, we steamed up the St. Johns about 10 p. m., and a little before midnight entered the mouth of the Ocklawaha. At daylight we were up watching the ever changing weird-like scenery—it was perfectly delightful, and must be seen to be fully understood. Here is a river without banks, its course being through the middle of an immense swamp, which frequently extends for miles along each side of the current. The channel is narrow and wonderfully tortuous; and so abrupt are the angles turned by the little boat, that with the most skilful management she often comes thumping against the cypress trees, and occasionally runs aground in spite of the efforts of the deck hands, who with long poles endeavor to force the little craft to keep within the limits of the stream. Frequently the branches of trees would sweep fiercely along the sides, and over portions of the deck, sometimes breaking the windows of our state rooms. Travel here is necessarily slow, but it matters not since no one is in a hurry.

The air was balmy and delicious; the trees and tropical undergrowth charming. Here is the home of the gigantic Cypress, *Taxodium deciduum*, where they grow from sixty to eighty feet high, with their

hoary summits beautifully festooned with Florida moss. The cypress trees being deciduous, and this the winter season, they were almost leafless, but this, although in some respects a drawback, was not without its advantages, as it gave an opportunity of looking some distance into the dense wood, and among the tangled masses of vegetation which everywhere met the eye. Among the trees in foliage, the Cabbage Palm formed the most striking feature, growing from ten to thirty or forty feet high, with its huge clusters of leaves capping a beautiful columnar trunk bristling along the upper portion with the remnants of leaf-stalks not yet shed. The hanging moss, *Tillandsia usneoides*, grows everywhere and festoons everything, giving the whole scene a unique and fantastic appearance. Some of the palms had lovely clusters of ferns growing at their summits, rooted in the base of their leafstalks. There was a very luxuriant Aster in flower all along the water course, a plant of a semi-climbing habit, twining about among the shrubs until it attains a height of six or eight feet or more, a mass of bright bloom, festooning the bushes to the water's edge. There were a great variety of shrubs, many of them evergreen, such as Bays, Hollies, &c., also climbers, and plants in profusion, including Orchids, which were parasitic on the trees, growing all the way up their trunks to a great height. We saw many beautiful water plants in flower, among others the Star Lily, which is very pretty. There was an abundance of what appeared to be a species of *Tropæolum*, very like our common Nasturtium, also very many beautiful grasses.

All day long the sun shone out with a pleasant warmth, its brightness adding beauty to the ever changing panorama which was passing before our eyes. By sunset we had reached Silver Springs Run, and another hour brought us to the Silver Springs. These springs are marvellous for the abundance of their waters and their perfect transparency. A deep river, a hundred feet wide, is created and maintained by them, which after a course of seven miles forms a junction with the Ocklawaha. At the Springs the transparency of the water is so perfect that every object can be seen at the bottom of the water almost as distinctly as in the air. It was dark when we got there, but the water was so illuminated with fires of pine knots burning on the upper deck of our vessel and along the shore, that we could see quite clearly to the bottom—a depth of from fifty to seventy feet. There were large beds of white sand at the bottom, on which we could

see fish, large and small, as distinctly as though they were within a foot or two of us. After remaining here for half an hour we retraced our journey to the mouth of Silver Springs Run, from whence our course lay further up the Ocklawaha.

FORTY DEGREES BELOW ZERO. CLIMATIC CHANGES IN
FRANCE AND CANADA. THE BALDWIN AND
SNOW APPLES. BARRIE vs. STRATFORD.

BY A. HOOD, BARRIE, ONT.

I do not know whether or not the climate of Ontario is really becoming permanently milder than formerly, but I do know that for the past eighteen or twenty years we have not experienced the same degree of cold as in the seven years preceding. The observatories I know will not bear me out in what I am going to say, because the nearest one, that in Toronto, always recorded ten or fifteen degrees higher than was experienced in the Township of Erin, County of Wellington, the locality to which these remarks have reference. But I assert without hesitation that for the seven years from 1855 to 1861 inclusive, the lowest reading of the thermometer for each and every winter during that period was never less than 30° below zero. But what a change there has been since, for although I still lived in Erin during the next seven years, and since then in Wroxeter, Brussels, and Fergus, and have every winter watched for the greatest degree of cold, I have never been able to record more than 22° below, and frequently not as much as that. Thirty degrees, however, was not the lowest record for that seven years, for on the sixth day of March, 1856, between seven and eight o'clock a. m., my thermometer indicated 32° below; another winter, date forgotten, 33° below; on the 19th January, 1861, 34° below. But thermometers you know are not always correct, and I frequently found it impossible to convince some parties that mine was, until an event occurred that enabled me to prove it. It is not easy to do this, because if right at the freezing point, it may not be so either above or below. We all know that water freezes at 32° above zero, and mercury at 40° below. Prove your thermometer right at these two points and every step between will be right also. This I was enabled to do on the tenth day of January, 1859, between seven

and eight o'clock a.m., for on that day the mercury was actually frozen! yes, frozen solid—clean shrunk into the bulb below the figure 40, and refused to come out again till brought within the influence of artificial heat! It will be readily imagined that as I found some people hard to convince that my thermometer was correct, they might be fully as sceptical regarding my own correctness in stating that the mercury had been frozen, so, to anticipate any doubts on that score, I was no sooner convinced of the frozen state of the mercury than I ran out and brought in two witnesses who could testify to the fact. One of them has been long since dead, but the other is alive and well, and living in the Town of Orangeville. A rather dry customer, one of the village wits, remarked, that "it was a good thing the mercury did freeze, for otherwise there was no telling how cold it might have got."

Now, there are Baldwin apple trees in the Township of Erin, (Erin has a gravelly soil) thriving and bearing crops every year, that were planted long before 1859, proving, in a suitable soil, that apple will bear a greater degree of cold than has generally been supposed, and will sustain without injury a temperature that in more unfavorable circumstances is fatal to much hardier varieties.

I have not, as I said before, during the last eighteen years seen the thermometer more than 22° below zero, and I have not heard, what I frequently used to hear before that time, frame buildings cracking with a report as loud as that of a pistol, which was always considered an infallible indication of a hard frost, and was indeed a practical reliazation of a "cold snap." Perhaps our climate is really moderating. It may be that as the country becomes denuded of its timber the rays of the summer sun beat down upon the naked earth, which thus imbibes a latent heat that in some degree moderates the intensity of the wintry frost. And supposing our climate is thus changing, it will only be doing as other climates are supposed to have done in the times gone by. Strabo, who lived nearly nineteen centuries ago, says that the winters in the middle and north of France (then called Gaul) were so severe that it was not supposed the grape would ripen north of the Cevennes mountains. Notwithstanding which, it is a fact that the Province of Bergundy, which has for hundreds of years produced the finest wines in the world, is not only a long way north of those mountains, but is in about the same latitude as Quebec, and the vineyards are principally in terraces up the sides and on the tops of hills

averaging from eight hundred to a thousand feet in height. Bergundy is in the interior of the country, far removed from the ameliorating influence of the ocean. If, therefore, wines of the finest qualities can be produced there in latitude 47°, and at such an elevation above the sea level, why may not grapes be grown successfully in any part of Ontario?

When I read that in the neighborhood of Lindsay, and in the County of Glengarry, the Snow Apple is scarcely hardy enough to maintain itself in a healthy condition, and that in the Ottawa Valley anything less hardy than a crab cannot be depended on, I am inclined to believe that it requires something more than the severity of the climate as experienced in those localities to render so many of our hardiest varieties of apples unproductive or unreliable. The Snow Apple is of course known to succeed in localities where the climate must be quite as severe as in Lindsay; and it is certain that it grows here, in about the same latitude, without showing any signs of tenderness.

In the CANADIAN HORTICULTURIST for March, 1879, H. McLatchie, of Templeton, says, "Fameuse wood is affected by frost, as is also Red Astracan, Alexander, and Talman Sweet." Thos. Beall, of Lindsay, is reported as saying, "We can only grow the more hardy varieties, the Baldwin, and even the Snow, cannot be successfully grown." Surely the mercury does not freeze at Lindsay, even if it does at Templeton.

I have been looking over a most melancholy report from Glengarry, in our Annual for 1873, wherein very little encouragement is given for planting fruit trees, as although formerly trees did well in that section, they have during the last six years nearly all failed. It really cannot be so much colder there than in other localities where trees succeed without difficulty. But perhaps the explanation may be found in the remarks of one unsuccessful grower, viz: "Young trees all die in about two years; I suppose *when they reach clay!*" I think reaching the clay has a great deal to do with it. A writer from Pictou, in the same Annual, expresses his belief that "the dry summers are as detrimental to our trees as the cold winters, because penetrating and drying up every particle of moisture to the ends of the roots weakens the trees, and the cold winters finish them." Jas. Dougall, of Windsor, expresses a similar opinion. My own view is not that the clay does the trees any injury, unless it has a wet bottom, or that they will not

flourish on a clay soil, but that vegetation on clay soils suffers more in a time of drought than on lighter soils, and is therefore rendered less able to resist the severity of our winters; in other cases the wet bottom may be fatal, as I should suppose is the case in Glengarry.

A few words before I close about the climate of Barrie, which I have no doubt some of my readers have been in the habit of looking upon as located somewhere in the neighborhood of the north pole, and possessing a climate something like that of Ottawa or Quebec. I have seen the idea thrown out somewhere that Stratford was or might become a great fruit growing centre, but I suppose who ever said so would never have dreamt of Barrie as being worthy for one moment to be compared with it in that connection. If so, allow me to state a few facts for that individual's information, and he will perhaps be "surprised to learn" that Barrie really possesses a more favorable climate for fruit growing than Stratford, although fully one degree nearer the north pole. I have not all the statistics at hand to establish this point fully, but perhaps I have enough for my purpose. In the first place, I have three numbers only of the *Canada Farmer* for 1868, July, August, and September, in which the mean temperature of nine towns in the Dominion is given for those months, as taken from the year book of British North America. And the mean temperature for the three months is,

Barrie,	-	-	-	61° 50'
Stratford,	-	-	-	59° 79'

In July Barrie is ahead of Toronto.

Barrie,	-	-	-	71° 38'
Toronto,	-	-	-	70° 40'
Stratford,	-	-	-	66° 64'

In an article from the pen of A. Macallum, M.A., of Hamilton, which appears in the Report for 1872, a table of the mean temperature of ten different towns in Ontario is given for one year—spring of 1869 to spring of 1870—and here again Barrie takes the lead of Toronto.

Barrie,	-	-	-	44° 03'
Toronto,	-	-	-	43° 07'
Stratford,	-	-	-	42° 07'

It may not be difficult to account for the difference in favor of Barrie as compared with Stratford, when it is remembered that the latter is 1182 feet above the sea level, while the former is only 779; but I

certainly am at a loss to know why the temperature of Barrie should be higher than that of Toronto. I have however taken the figures as I found them, and if they are correct the individual above referred to will not be the only one who is "surprised to learn."

SUGAR CANE.

BY P. E. BUCKE, OTTAWA.

Perhaps it is right that some apology should be offered for writing on the above subject in a periodical devoted to fruit and flowers, but it must be admitted the article of sugar, like those mentioned, is one of the sweets of life, and therefore admissible. The importance of Canada being able to produce its own sugar, for which so many thousands of dollars are annually sent out of the country, may well lead both the government and private individuals to turn their attention to the subject of a home industry in this direction if such can be established. Everyone is aware who has given much attention to the manufacture of sugar from the beet root that it requires very expensive machinery and an exceedingly scientific treatment to produce an article suitable for commerce. These difficulties are overcome by the production of sugar from the new canes now cultivated on a large scale in the Western and other States.

Some time during the Eighteen Hundred and Fifties there was sent to the neighboring Republic by some of its foreign Consuls the seed of the Sargo, or Chinese sugar cane, and some of the Imphaes, or African sugar cane. These seeds were distributed by the Department of Agriculture, at Washington, all over the United States, and have apparently found a congenial home in the States of Minnesota, Illinois, Texas, Pennsylvania, Missouri, and Michigan. It will be noticed that it is not only adapted to the hotter Southern States, but comes to maturity in those whose climatic influences are similar to our own Province of Ontario. In point of fact, wherever Indian corn can be grown or grapes ripened these plants flourish, as it will arrive at maturity in a shorter season than the maize plant. The plant is a great deal similar to that of the Indian corn, with the exception that the corn bears its seed on the ear, whereas these canes have their seed on the tassel on the top of the plant.

It should have been stated that since the African and Chinese canes have been grown in America they have either been naturally hybridized or have become changed by climate, and the variety now found to contain the greatest amount of saccharine matter is the Early Amber, a variety originating in Minnesota.

The best soils for its cultivation are the same as those for corn, warm upland sandy plains; low ground, and such as have been recently manured, should be avoided. The mode of planting for sugar cane is the same as for corn; that is, in check rows made with the plough four feet apart each way. The time of planting is also the same, that is, when warm weather sets in and all danger of frost is passed. During the growing season the ground must be kept clear of weeds, and the suckers removed from the plants. When the seed is ripe or nearly so the cane should be cut. If the season is ordinarily hot the time for cutting will be about the first week in September. After cutting, the cane should be left in windrows in the field for a week or ten days to cure. After this, if not wanted to work up, it should be placed under shelter, but if possible should not be allowed to get wet or be exposed to frost, as either of these spoil the color of the syrup and sugar, though they do not materially injure it. The leaves must be stripped from the cane before using; this is usually done by placing two or three hills of cane on a raking board, one end of which rests on the ground, the other on a tressel, and whilst one man holds the tops, another rakes down the cane with a steel toothed rake, and by this process all the leaves are removed. The man holding the tops then cuts them off with a heavy knife, and lays the canes in a pile for future use. The leaves make a valuable fodder and the seed an excellent feed, the first equal to the best hay, the latter equal to oats. It requires three men to top and strip an acre per day. The bagasse, or refuse stalks from which the juice has been extracted, also makes a superior food for cattle. It will thus be seen the entire product is available for useful purposes.

For making sugar and syrup it is necessary that a mill be procured for grinding the cane and pressing the juice, and an evaporator for boiling it down. The average yield of dense syrup per acre is about one hundred and sixty gallons. The appliances generally used are the Victor Cane Mill, made by the Bloymer Manufacturing Company, Cincinnati, Ohio, and the Cook Evaporator. These are made in

different sizes to suit the capacity required. The larger the manufactory the cheaper is the work accomplished. It is claimed that great advantage is afforded in the manufacture of sugars, from the circumstance that the period of cutting and working up the crop into dense syrup occurs at a time when the season for outdoor work is most favorable and when the days are long. The work of sugar making can be arrested at a point—in the syrup state—and may be completed during the winter when labor is cheap. It is also claimed that the sugar is manufactured simply and cheaply, and at less than half the cost of beet root sugar; the carbonaceous process and the use of animal charcoal being entirely dispensed with, and the use of the vacuum pan is quite unnecessary.

Mr. S. H. Kenny, of the *Pioneer Press*, Minniapolis, Minnesota, says: "We commenced work 12th September, (the season was late) and finished 28th October, 1878, manufacturing four thousand two hundred and forty-two gallons of good dense syrup, working eighteen hours per day. The help employed besides myself was three men and two boys, and horses to run the mill, a change of which should be made every six hours. Had I used a Victor Mill No. 5 I could have accomplished the same work with one less hand. I used a No. 7 Cook Evaporator. The wood required for evaporating was fifty-six cords, all soft wood." He estimates that the expense of manufacture is twenty-six cents per gallon if the cane is bought; the price per acre delivered at the mill is twenty-five dollars, but it can be grown at seventeen dollars per acre, which would reduce the cost of manufacture five cents per gallon, making the syrup twenty-one cents per gallon. This syrup he has sold at seventy cents per gallon by the barrel. It will be seen, if these figures are correct, that there is a good margin for profit.

If necessary, facts of an official nature could be multiplied to show the success this industry has met with in its crude state, not only in manufacturing syrup but sugar also. The Early Amber cane has been successfully grown here in small quantities by more than one individual as an experiment, though no use has been made of it further than feeding to horses and cattle. These animals are exceedingly fond of it, and eat it up with great avidity. As a summer forage plant it has no equal, as the crop raised per acre is very heavy. Some seed was sown here 12th June, 1879, and the plants were cut 22nd September for the

exhibition. Mr. Bennett, of Ottawa, showed one of these stems at the annual meeting of the Fruit Growers' Association measuring eleven feet high. A farmer between here and Montreal made some syrup in the autumn of 1878, and gave an interesting account of his success in a French paper. Col. William White, of this city, one of our esteemed members, was the first person here to introduce the seed, some of which he very kindly distributed, and some he sowed on his own grounds with very good results.

I feel quite convinced that as a sugar producer the Early Amber is destined to fill the great want of Ontario. It far surpasses the beet root, being much easier handled, and no washing is required. It is quite as productive per acre, and the appliances for manufacture are much simpler and cheaper, the chemical knowledge required not being of so scientific a nature. I trust the Ontario Government will direct that attention may be called to the manufacture of cane sugar at their Guelph model farm, and that every endeavor may be made to redeem the time lost in deciding the value of this enterprise, which has for centuries been carried on by the despised Zulus and the Chinese.

The Early Amber seed can be had from Messrs. Kenny & Miller, Dundas, Rice Co., Minnesota, U. S. A., at the following rates:

By mail,	- - -	60	cents for one pound.
By express,	- - -	50	" "
"	- - -	40	cents per pound for 10 pounds.
"	- - -	35	" " 25 "
"	- - -	30	" " 50 "
"	- - -	20	" " 100 "

The quantity of seed to sow an acre is four pounds.

QUESTION DRAWER.

An esteemed correspondent asks:

(1.) What about the Brockworth Park Pear, about which so much was said a year or two ago? Has it proved to be a valuable variety for our climate, or is it, like many a new thing, no better than many pears we already had, or perhaps not as good?

The Brockworth Park has proved to be just as good as one of the pears we already had, for on fruiting it in this country, Chas Downing, of Newburgh, N. Y., the best living authority on such matters in America, pronounces it to be only a new name for an old sort, the

Bonne d'Ezee, if our memory serves us correctly. This variety had not been extensively disseminated, and consequently was but little known. It is classed as good to very good in quality, ripening from September to October. Who is to blame for this attempt to put off an old variety by giving it a new name we can not tell.

(2.) What is the character and value of the Lady Apple? It is being brought to the attention of planters just now by the tree agents, and I would like to know what is its claim, if any, to public attention.

The Lady Apple is an old variety, of French origin, that has been in cultivation in America for half a century. The fruit is very small, with a smooth glossy skin, bright yellow in the shade, but having a most brilliant red cheek on the sunny side. The flesh is white, crisp, juicy, and of a mild pleasant flavor. It is in demand during the winter, and especially during the holiday season, in the large cities, such as New York and Philadelphia, for table decoration and as a dessert fruit, on account of its small size and great beauty. When selected with care, so as to be free from all blemishes, it brings sometimes as much as fifteen dollars per barrel in New York; yet, in the writer's experience, it is very apt to be affected with the same black spots that appear on the Snow apple, which sadly mar its beauty, and make it quite unsaleable. The tree is an abundant bearer every other year.

(3.) Has the Beaconsfield Grape proved to be the same as the Champion?

We received a letter from a gentleman residing in Montreal in which he says that after testing it as grown near Montreal with samples received from Ontario, he is perfectly satisfied of its identity. We are also informed that a large number of Champion Vines were bought up about Charlotte and Rochester last spring and shipped to Montreal. Mr. L. W. Decker, whose vines Mr. Menzies claims are identical with his Beaconsfield, says, "I bought my first Champion vines in 1871, from Shanley and Gallagher. This is the same Gallagher who is now in the Beaconsfield scheme with Menzies."

(4.) Is the Champion really a valuable grape, and how does it compare in quality with the Hartford Prolific or the Concord?

In the climate of western Ontario, where the Hartford Prolific and Concord ripen well and regularly every year, the Champion will not prove to be a profitable grape, on account of its comparatively inferior quality. There are much better grapes which ripen as early, and these

will command the market. But in the more northern latitudes, where the Hartford Prolific suffers from the severity of the climate, and the heat of summer is not of sufficient duration to ripen the Concord perfectly, then the Champion may be grown with profit. Yet it seems to us that there are now coming into cultivation other early ripening sorts which are of better quality, and give promise of being equally hardy. Should these prove sufficiently hardy to endure the cold of northern Canada they will be likely to supersede the Champion, whose chief recommendation is the great hardiness of the vine and early ripening of the fruit, which sells readily in city markets when freshly gathered.

ZINNIA CULTURE.

BY CHARLES JAMES FOX, DELAWARE.

For upwards of twenty years I have grown Zinnias from seed, which was procured from James Vick, and on reading Mr. Hood's article, was induced to add my experience as a grower of Zinnias. Last year, having laid out a new garden, I had a poor sandy bank from which the top soil had been removed. A portion of it was planted with spruce, which I well mulched with good rotted manure, leaving a strip about six feet wide for shrubs. But not having time last spring the strip was left vacant, and having a lot of Zinnia plants over after planting on well prepared soil, my better half said, "Plant the bank with them." I did so, and to my surprise I never had a better show of well formed flowers, far ahead of those in a good rich border. Where the Zinnias flourished, Dahlias, Balsams, and many other flowers failed. Now the question is, if good strong plants are raised, (mine were twice transplanted,) will they not do better on a poor soil if the aspect is good, rather than on a rich soil? The latter produces growth of plant, the former the extra growth and beauty of the blossoms.

Here is a suggestion worthy of attention. Doubtless many who have given the Zinnia careful culture and just the richest bed in the flower garden have been disappointed because the flowers did not come up to their expectations. There is such a thing, it seems, as spoiling flowers, as well as children, by over indulgence.—ED.