Growing Cauliflower Plants.

It is not desirable to raise the seed in an early hot-bed, because they then come into heading in the heat of summer, so that instead of forming large, compact heads, they grow small and branched. If grown in the open ground, select a bed on the north side of a building or high board fence, else the *fly* will be very sure to thin the plants out much more than is desirable. The very best way is to raise them in a cold frame, say a foot high at the back and nine inches in the front. The seed can be sown about the 20th of April, in drills three inches apart, and when up should be aired freely, and the earth between the rows frequently stirred. The plants will be ready for transplanting about the 1st of June. For an early variety the Early Paris is usually preferred, and as a later sort the Lenormand is esteemed much the finest variety in cultivation.

Culture of the Grape Vine.

The Grape, in all ages the symbol of happiness and abundance, is at once the most nourishing, the most refreshing, and the most delicious of all the products of this earth. Its cultivation, in soils and climates adapted thereto, is a delightful and profitable occupation.

Are the soil and climate of Canada adapted to grape growing in the open air? and if so, would its culture here be profitable? We have seen the grape growing in various parts of the Province in the utmost luxuriance and of the richest flavour, indeed, equal to any we have ever seen imported from Ohio, or any other of the United States; therefore, we have no misgivings on these all-important preliminaries, that proper location, proper soil where needed, proper drainage, proper selection of sorts, and proper cultivation, must each and all be attended to and ever borne in mind; that nothing, in short, be left to chance, will be apparent to every person of observation and common sense.

The works that have been written on the culture of the vine, generally speaking are calculated more for the use of wealthy amateurs to whom expense is a secondary consideration, than for those who would cultivate the vine more or less, provided they had some reasonable prospect of success. Indeed, it is notorious that many persons are deterred from attempting grape culture by the expensiveness of the methods recommended—trenching and heavy manuring to a depth of three or four feet—an expense not only useless but absolutely injurious. We shall aim briefly to note what we believe, from our own experience and observation, to be useful to persons of limited means, or to those who would willingly *try* the culture of the grape, provided it could be done without involving any considerable pecuniary risk. We repeat, grape culture will pay, and have no doubt of its becoming in a few years a most important branch of Canadian industry. Of the many methods of training we recommend as the best adapted for Canada what has been termed the

SINGLE STEM DWARF AND RENEWAL SYSTEM.

From observation and experience we can safely affirm it is in every way calculated to develope the better qualities of our native grapes. It is simple, easily understood, involves no expense, and is far superior every way to the elaborate and expensive plans recommended in many popular books.

The method is simply to fruit the vines in alternate years on a single short cane, and with very short lateral branches, cutting down at the end of the season to two or three eyes, and the following year allowing the strongest one of these eyes to grow, expecting it to bear fruit the next year. If you have twenty vines, for example, *ten* of them produce fruit and *ten* wood each year in rotation. The entire strength of the roots is thus concentrated upon a small quantity of fresh and vigorous wood, and hence larger and finer bunches of fruit are produced than by any other method. This is the whole system in a nut-shell.—A whole row may be in fruit and the adjoining one growing wood for next season's fruit, or the plants may be fruit and wood alternately, in the same row. This method is alike admirably adapted to foreign as well as native kinds, and perfectly suited to the wants of grape growers in this northern climate of Canada, whether in graperies or vineyards, or on arbours or trellises.

We emphatically enjoin shallow planting, not more than four or five inches deep, in borders dug not more than twelve to eighteen inches, in moderately rich soil. Surface manuring and mulching are necessary to insure sufficient moisture at the roots during the droughts of summer, and even with the hardiest kinds as a protection from the extreme frosts of winter.

The situation should have a southern aspect. The ground must be well cultivated. It ought to be ploughed and subsoiled to a depth of from twelve to eighteen inches and thoroughly pulverized, and if not thoroughly dry, be made so by drainage. Above all, good shelter is indispensable. A few vines may be advantageously planted on the side or gable of a house or a high board fence. A vineyard should be well protected with high fences, and to the north and north-east with a strong fence or belt of evergreens. Our common pine, if carefully planted, will do well. The middle to the end of May is the best season for planting it. But still better the Norway spruce, American or Silesian arbour vitæ, or the hemlock; and to insure a yet more effectual shelter a single or double live fence might be run across the garden or vineyard from east to west, at right angles, dividing the ground into squares or parallellograms.

Woburn. W. S.

[More about vine-culture in our next.]

About Planting Apple Trees.

To the Editor of The Canada Farmer:

Sir,—Having had some experience in planting and taking care of apple trees I venture to send to The Canada Farmer a few words on the subject. In the summer of 1860 I gave an order for 40 apple trees to be delivered in the fall. The trees came to hand in November, and as it was rather late and my ground not prepared, I concluded not to plant until spring. Having dug a shallow trench in the garden I laid the trees in carefully, beginning at one end by laying a few trees about half their length in the trench, putting a little earth about the roots, and the next with their tops resting on these, and so on until all were in, and then shovelled in the loose earth, leaving only the ends of the twigs out. On the 25th April following, having good wide holes dug for my trees, I began to plant. Found my trees in beautiful order on taking them out of the trench. Taking a few to the orchard I laid them down and threw a little earth on the roots, only having one out at a time. In planting I was very careful to spread out all the roots, nicely filling in the mellow earth with my hands at first, working the tree up and down a little to make the earth settle around the roots, then shovelled the earth in and tramped firmly until the tree was about two inches deeper in the ground than it was in the nursery row, leaving the surface slightly rounded about the tree. After all were planted I took a sharp knife and cut back the tops about one-third, taking out any limbs that were not wanted. Then I brought two or three loads of strong manure from the barn yard and put a few forksfull around each one to keep the roots moist during the summer. Now the result, *I did not lose one tree;* they all made a splendid growth, and some of them had one or two apples each the second summer, while one of my neighbours who got about the same number of trees from the same man, at the same time, and planted in the fall *did not save one.* I have also got trees from the nursery in the spring and lost none after planting, but they did not seem to thrive quite as well as those taken up in the fall. The reason I think is this, in the fall the sap has gone down to the roots and if the tree is then taken up and put in a trench it lies dormant until planting time when it is prepared to send up the sap from its full roots and go right on without check, while those standing in the nursery all winter begin to grow in the spring before being taken up and then if transplanted they *don't seem to like it.*

TAKING CARE OF APPLE TREES.

Having got an orchard planted and growing, don't imagine that your work ends there; a tree requires food and grooming as well as a good horse and will not bear neglect any better. The first three or four years the ground should be kept clean by raising some kind of seed crop, taking great care not to injure the roots or stems of your trees when working the ground. After that it is almost impossible to use the plough without mutilating the roots, therefore I would recommend that the orchard be sown with a crop of spring wheat or barley and seeded down with a mixture of clover, timothy and cocksfoot, or orchard grass, top-dressing every year with good manure.

To keep mice from your trees draw out very short manure every fall and make a conical pile about 18 inches high around each one, patting it firmly with the back of a shovel. This will also support the tree against the heavy winds of autumn and winter. In the spring spread the pile around the tree.

To keep the tree free from bark lice and other insects, and give them beautifully smooth, healthy skins, wash them all over every spring with weak lye and soft soap. Thin out the tops well when small and then you will not kill your trees by cutting out big limbs afterwards.

SOIL FOR AN ORCHARD.

The very best soil for an orchard is a strong loam with limestone in it. Next, a dry sandy loam. Avoid a wet bottom or one of pure gravel.

J. A. S.

Cherry Bank Farm.
Burford, Feb., 1864.

Ripening Pears.

To the Editor of The Canada Farmer.

Sir,—It has been a study with me for some years back, to discover the best method of securing the highest excellence in the pear. One of the chief ends to accomplish this desirable result is the plan adopted in ripening them, and one by no means the least important. In the ripening process I have been in the habit of testing various ways. But the one most successful is as follows, namely, to cut a pear open (either summer or fall) and finding the seed colouring and at the same time observing a state of maturity in the leaf (but this requires a nice discrimination with which I find few acquainted,) the pear is then given a further test by raising it up rather briskly and if found to come away with its stem clean and smoothly separated from its spur in an easy manner, showing that nature is loosing its cohesion at the junction; these signs being favorable, the fruit is carefully hand picked and placed in heaps one upon another in a dark, close and warm room, not higher than 80 or lower than 70, on shelves made for the purpose with a guard nailed upon the front edge to keep it from rolling off. It is essential that this room or closet be subject to no draught or air, and also dark. Here it is allowed to remain undisturbed until a certain natural process of exhalation or sweating ensues, which makes itself known by a ravishing aroma sent forth to greet us with a silent, irresistible invitation to seize the golden fruit (and we will eat without persuasion from mother Eve), all the while secretly wishing our neck a mile long and a palate all the way. Try it reader. Yours respectfully,

Hamilton, Feb. 2, 1864. W. H. M.

Yield of Apple Trees.

To the Editor of The Canada Farmer.

Sir,—Will you allow me a few lines in explanation, with reference to a "Note by the Editor," in your second number—"That trees planted 18 feet apart will yield more bushels per tree, than if planted 40 feet apart"—*other things being equal*—will, I apprehend, be a "new idea" to most people! I regret should anything in my observations have led to the conclusion that I meant anything of that kind. I certainly did *mean* to say that trees planted 40 feet apart *with the ordinary system of culture,* would yield less, very much less, per tree, than if planted 18 feet apart with *proper culture,* in every respect—and I pointed out, as I thought, emphatically, that no *other crops* should be allowed to occupy the ground, whether weeds, grass, roots, or cereals,—and, of course, with due care and culture in every other respect. And bearing all these conditions in mind I do not think such an idea need excite much surprise. I did not go into all the minutiæ—all the *modus operandi* of good culture, but *all* were implied. It was such a system I endeavoured to contrast with the ordinary methods pursued in connection with planting 30 to 40 feet apart. The benefit of *shelter,* for instance, to fruit trees is very little understood, and very far from being generally appreciated.

Woburn, March 1, 1864. W. S.