

borne regularly and profusely ever since, and is a perfect picture of health. Northern Spy fruited when fifteen years old, bearing a few apples that and the succeeding year, and then died root and branch. I have tried several trees of the same variety, with similar results. Both these varieties originated in the same orchard in New York, and both are of the finest quality; but I regret to say that Northern Spy will not succeed here, and we must look to you for our supplies of them, as they have already become the standard winter apple of this market. King of Tompkins County, Baldwin, English Golden Pippin, Detroit Red, Summer Rose, Early Strawberry, Maiden's Blush, Swaar, Gravenstein, Talman Sweet, Twenty Ounce, Hubbardston Nonsuch, and a number of English varieties, are not suited to this climate; while others, such as Esopus Spitzenburg and Fall Pippin, are hardy, but very poor bearers with us.

About four years ago a succession of cold rains in the latter end of May completely killed off the apple caterpillars, which for the last fifty years have been so destructive to the orchards here as to cause many to abandon the culture of the apple altogether. The riddance of this pest has greatly stimulated the planting of fruit trees, and there have been more orchards planted during the last three years than during the ten years previous. I note these facts because it is erroneously supposed here that the protecting of insectivorous birds during the last few years has caused the disappearance of the apple caterpillar. During a close observation of twenty-five years, I have never seen an insectivorous or any other bird that would touch an apple caterpillar, and my observations are confirmed by our oldest orchardists. I do not wish to undervalue the protection of birds, but I can positively affirm that our exemption from apple caterpillars is in no way connected with such protection.

This whole subject of insect devastation is one which must in future compel the serious attention of the horticulturist. The prevalent ignorance of entomology as practically applicable to horticulture, is deplorable. If the societies of the Dominion would apply themselves to study the conditions under which insect life prospers, they will inaugurate a new element of success in fruit culture, an element becoming every year of increased importance from the constant increase of our own minute but formidable enemies.

I may remark, however, that apple trees here, if we except the caterpillar, are exempt from many insect depredations, owing to the severity of the winters and the depth of the snow, as after a very mild winter insects here are much more numerous and troublesome.

The best time for planting fruit trees here is to take them up in the fall, heel them in for the winter, and plant out in the spring. The cold dry weather so prevalent at the commencement of winter is very destructive to fall-planted trees. If the holes where the trees are to be permanently planted are prepared in the fall, and the tree laid in the same by the heels and well covered, so that in the spring it would only have to be raised to an upright position, not more than one tree in a hundred would fail.

I have planted a great number of dwarf apple trees during the last twenty-five years. With rare exceptions they succeed for a few years only. They form an enormous protuber-

ance at the graft, and if the roots are not thrown out above the junction, the tree either dies or breaks off there. I have only one dwarf apple tree remaining (Autumn Strawberry), which is twenty-two years old, and a marvel of fruitfulness; but I know that it has rotted above the stock. Dwarf apples will never be a success here in a pecuniary point of view.

#### PEAR CULTURE.

As this is the most northern limit for the pear tree to be grown with success, I must trespass on your patience a little by stating a few of the circumstances under which pears were formerly grown here, as contrasted with the modes of cultivation generally practised at the present time, as they furnish some useful hints to those who may attempt the culture of the pear in the northern parts of the Dominion. The early French settlers planted in the vicinity of Montreal a great number of pear trees, of kinds that were common in Europe over a hundred years ago, such as summer Bon Chretien, White Doyenne, Capiumont, Green Chisel, and a few early summer varieties. Many of these trees attained a great age, and grew to a large size. I have trees grafted from a Beurre Capiumont, which was cut down a few years ago in this city, the wood of which was quite sound, and it was at least a hundred years old. I had these scions grafted on perfectly hardy wild pear stocks, and yet I have had the greatest difficulty in keeping these young trees from being winter-killed, in one of the most sheltered and favourable situations on the island of Montreal. Now, previous to the terrible winter of 1858-9, there were quite a number of these large pear trees about there, which bore large crops of fruit and were, for trees of such age, in a thrifty condition; and I find from personal examination and enquiry that most of these trees were never manured or had the ground cultivated about them; that they made a very small annual growth, which was in consequence well ripened at the end of our short hot summers; that this small growth had a tendency to make the tree fruit early, and this early fruiting would check the redundant growth of an unusually favourable season, and enable the tree to ripen its wood as usual. Such were some, at least, of the conditions under which these fine old trees grew and prospered. Let us consider for a moment the conditions under which pear trees are planted by the million at the present day, and which grow, but don't prosper.

In the first place, the nurseryman endeavours, by high manuring and cultivation, to have his trees fit for sale at two or at most three years from the bud, and his trees are as large as they ought to be at twice that age. These frothy half-ripened things are sent all over the country. The parties who buy them read up the subject of horticulture; they learn of the immense progress trees make with high culture and manuring, and they saturate their ground with rich stimulating manure. In a season or two the roots have got fully established, and a strong rapid growth follows, very delightful to look at, but which the succeeding winter will certainly destroy.

TURNING OVER THE GRAIN after it is thrashed, should never be neglected. No matter how dry it may appear, it will sweat if not turned occasionally. If it gets heated, turn it at once, and then run it through a fanning-mill.

#### DON'T SOW TOO EARLY.

A decision was rendered recently in one of the Philadelphia courts against a claim for damages made by Jacob Kessler, a market-gardener, who brought suit against Mr. Dreer, the well-known seedsman of Philadelphia, for having sold him Early York cabbage seed that "run to seed." The seedsman of the whole country are indebted to Mr. Dreer, and no doubt will tender him their hearty thanks, for the grit he showed in standing a suit rather than to compromise, as the chances were more than even against him, the sympathies of the jury being most likely to be with the complainant in such a case. The ventilation of such a matter is exceedingly instructive to those engaged in gardening operations, as was shown by the facts elicited on the trial, the gist of which was, that Mr. Kessler had sown the cabbage seed on the 5th of September instead of 15th, and that error, combined with an unusually mild and growing fall, practically lengthened the season, so that the cabbage plants became "annuals"—running to seed within the year of sowing—rather than forming heads and acting as "biennials," as was expected of them. Now, just here an excellent lesson comes in with another vegetable. Most of our so-called scientific gardeners are English, Scotch, Irish, or Germans; they come here, most of them, with a thorough contempt for our rougher style of doing things (a practical style born of our necessities in the higher cost of labor); and it is next to impossible to convince one in a dozen of them, that there is anything in horticultural matters here that he needs to be informed of. Accordingly, if he wishes to raise celery, he starts his seed in a hot-bed in February, just as he would have done in England, and is astonished to find in July that, instead of forming a thick and solid stalk, as it would have done there, it spindles and runs to seed. If his knowledge of the art had been based on common sense, instead of the blind routine practice attained in a colder climate, he would have known our season—from April 1st to July 1st—would sum up nearly the same mean of temperature here as it would there, from February 1st to July 1st; and hence it was not only unnecessary here, but dangerous to the welfare of the crop, to sow such biennial plants as celery in any other place than the open ground, and that not before April. It was just such an error that the market-gardener made who sued Mr. Dreer. He had been following likely in the English or German method, and paid the penalty not only of losing his crop, but losing his lawsuit, by not adapting his practice to our conditions of temperature. As the matter of sowing the seeds of cabbage, cauliflower, and lettuce to make plants to winter over in cold-frames, is