

taking off the whole of the young orchards that have been planted within these fifteen or twenty years past, and that even the old *savage*, as the Canadians call it, that has stood the severity of the winters for the last fifty years, is suffering the same fate, the difficulty of giving an opinion is all the greater. When also it is observed that apple trees both in the most sheltered nooks and on the bleakest exposures, on the best alluvial soil, and on the gravelly and limestone rock, all alike share the same fate, the necessity of careful consideration is much increased. I noticed in several of the apple trees, after the severity of the winter three years ago, that many of the large limbs became disordered by their cellular tissues not admitting that uniform and free flow of sap to the outer extremities of the branches, which was necessary for healthy growth. The consequence was, that there remained in the trunk an overflow of sap, and some very severe freezing nights coming at the time, the sap froze, and caused the outer bark to burst; the trunk soon after presenting a black and decaying appearance. This is one of the causes to which I attribute the decay.

I have also observed in gardens and orchards, at a season when the trees are in full vigour of flower and foliage, that they have been completely denuded of their leaves by the ravages of the caterpillar; thus being left bare to the influence of a June sun, their health and vigour were seriously impaired. I have observed that trees which suffered so, for two years in succession, hardly ever recovered from the effects of it; this is one other cause to which I attribute the decay of the apple. To avoid injury to the trees, care should be taken as to the time of pruning. When this is done in the beginning of March, or, as is sometimes the case, before that time, and wounds are left bare, without any cover or protection, the influence of a hot sun by day, and hard frost by night, is such, that these wounds emit a portion of the sap, and cause the parts affected to become black, a sure forerunner of decay. In my humble opinion, that work should be deferred till later in the season. My reason for forming this opinion is, that I have observed in my practice of budding, which commences about the middle of July, for stone fruits, and continues all through August for the pear and the apple, having to cut and prune the stocks to a considerable extent, I always found the wounds, at that season, to heal up very quickly, and leave no trace of black, such as might be seen in early spring pruning. Another cause of decay, seems to me to be some kind of atmospheric agency, for I have frequently noticed a portion of the branches of apple trees, becoming black in parts where there were no wounds. Sometimes at the junction of the lateral branches with the main branch, and sometimes near the outer extremity of the branch. Some persons attribute the appearance to lightning, but that appears to me rather

doubtful, for although thunder and lightning are common in the summer months, in Canada, never noticed any parts of apple trees to be blackened to the extent they now are, until the last four years past. There might, indeed, occasionally have been symptoms of decay in some trees, and in certain localities, but the cause in such cases was easily accounted for. This commonly occurred when trees were planted in hard blue sub-soil, saturated with water at all seasons of the year, without the least attention being paid to drainage. On consulting any of the British authors who have written on the culture of the apple, they will all be found to agree that the soil should undergo a thorough preparation previous to planting, and that it should be trenched at least to the depth of three feet. If such preparation is an essential in a mild climate as Great Britain, it is much more so in Canada, where we have frequently such long continuance of drought in the summer, and severe frost in the winter. I have often been struck with the short life of the apple trees about Montreal. There was an impression made on my mind, in early life, that the apple was a short-lived tree. I have known apple trees in the west of Ireland, in the neighborhood of the town of Sligo, to attain the age of 150 years, and then to be bearing good crops of apples. I also find that A. J. Downing, one of the most reliable and best American authors, in writing on the long age of the apple tree, says he saw Rhode Island, two trees 130 years old. I, however, reckons our fine garden sorts to live only from 50 to 80 years. Now, I question we could find about Montreal any of our garden sorts half that age, that is 40 years. He also strongly recommends trenching the soil, and says it adds greatly to the long life of the trees. I must confess that I have not seen that proper attention paid to fruit trees in the neighborhood of Montreal which they require. I have seen, in many cases, trees planted on a green sward, without any other preparation, but simply making a hole and putting in the tree, leaving it afterwards to take care of itself. In such cases the result may be easily conjectured. In taking up numbers of both pear and apple trees, the heads of which were dead, I found that their roots were generally perfectly sound, not showing the least symptom of decay below the surface. The cause of decay does, therefore lie with the root.

The question often occurs to me, shall ever see Montreal producing the fine fruit it had twenty-five years ago? The market were then filled to overflowing with the varieties of the plum and the pear, and a good quantity of the peach and apricot, of wall culture. Now there is no such thing to be found as a good Bon-chretien pear, or Autumn Bergamot, or a Burmese Spruce, or a luscious Bolman's Washington plum, or Greengage, or even a coarse Magnum Bon-