

understood in all its bearings as it should be. It is the keynote of the cry that comes to us from all the most observing and intelligent orchardists of the cold north-west—mulch! *mulch!! MULCH!!!*

With us in Quebec, Northern Vermont, New Hampshire, and Maine, we have not been taught this lesson with the severity that has pressed it upon the experimental orchardists in those districts where, not unfrequently, the greatest extreme of cold will come while there is little or no snow upon the ground. Under such circumstances it will often occur that whole orchards of unmulched trees will be killed, while those trees that have had adequate root protection come out entirely unharmed.

When I first set out my orchard upon the shore of Lake Memphremagog, there was no dwelling-house upon the farm, and I resided in the village, some distance away. I did not visit the orchard in winter, and was very much puzzled to find in the spring that some of my hardiest trees were dead while others of the same kinds, often not more than twenty feet away, were quite unhurt. Trees replanted upon the same spots were killed year after year, until I came to the conclusion that there were places, though often only a few rods square, where the soil was unsuited to apple trees. But when I had built a house and began to live near my orchard, so that I could see it during the whole year, the mystery was solved. Those trees were killed in spots where the snow blew off; and now I can grow trees on those spots, on the sole condition that they must be heavily mulched, or with something placed on the windward side to catch the snow.

It is everywhere insisted by orchardists that orchard land must be well drained, either naturally or artificially, and that not only the sub-soil drainage, but the surface drainage as well, must be seen to. These rules are still more imperative in the Cold North. Trees standing in even a very slight depression, where water will settle around them but two or three inches deep, will be killed or seriously injured by thawy weather at any time before the frost leaves the ground. I