

might be the variety, so he tried other varieties; but with the same invariable result—no flavor. It was quite true, for I have no hesitation in saying that grapes grown upon sand are insipid, watery, flavorless productions, and are as much inferior to those grown upon clay as those grown out of doors are inferior to the hot house varieties in a cool climate.

I am informed by a neighbor who is in the habit of attending the Hamilton market, that the dealers and buyers there eagerly seek for grapes grown upon a clay soil, the effect of which is that it is hard to find them grown upon any other soil—at all events when they have reached market. I am also informed that wine makers, both at Hamilton and at St. Catharines, vastly prefer grapes from the clay, indeed, will not purchase any others if they can help it.

Now we come to pears, and here again the quality and flavor are much superior, some varieties almost flavorless in sand, being excellent on clay, *i.e.*, Flemish Beauty. Clapp's Favorite, too, which rots at the core if allowed to hang upon the tree on sandy soil will hang for weeks upon the clay without suffering deterioration. The trees are healthier, bear as well and are much less subject to blight, that fell enemy of the pear grower.

Plums revel in a clay soil; they bear early, last long, and produce abundant crops of excellent quality, often bearing heavily in seasons when there are none upon the sand. They are also less subject to disease and to the curculio.

Apples do excellently upon a high clay; they come into bearing early and do not feel climatic changes so much as on the sand. The fruit is of finer quality and keeps better. The trees as a rule bear more fruit and less wood and do not require so much feeding.

Quinces will do well on clay if given good cultivation and a moderate supply of manure; also red and black currants.

Yet other two points in favor of the high clay and I have done.

Firstly, it does not require underdraining to produce fruit profitably, of excellent quality. This is frequently a very important item in the expense of putting out fruit. One of our prominent members declared at a meeting of the Farmers' Institute, held at Grimsby last winter, that it was quite useless to underdrain the high red clay. While not going so far as this, I am of opinion that it will make so little difference as not to be worth doing.

Secondly, the fertility of the clay for fruit is not easily exhausted, and can be kept up for an indefinite period with a very moderate supply of manure. Now, on sand it is feed, feed, feed all the time if you wish to obtain the two requisites, *viz.*, quantity and quality. I am convinced that the reason a great many orchards do not bear upon the sand is from no other cause but soil-exhaustion. Now, the clay (like the Scotchman, of whom it was said on some one asking if he kept the Sabbath, Yes, he keeps the Sabbath, and everything else he can lay his hands on) will retain all the fertility you can supply to it, and will unlock it gradually.

Summing up, I think we may safely say that the fruits I have mentioned *viz.*, grapes, pears, plums, apples, quinces and red and black currants, can not only be profitably grown upon clay, but will excel those grown upon almost any other soil.

Mr. ALLAN (Goderich): I can't agree with a great deal that Mr. Pattison has said. I believe in clay; I believe in clay loam; I do not believe that fruit culture can be successfully prosecuted upon a heavy clay, and I take it when he speaks of clay it is pure clay or a heavy clay, and not a clay loam, without a thorough system of underdraining upon such soil. Under-drainage is important on almost any soil—even in gravelly sub-soils, which are often springy, where the top soil is mellow and easily penetrated, so that the feeding roots reach substances that are not altogether beneficial to the formation of perfect wood and fruit. As to quality, there is unquestionably a difference in some