

This is due largely, the committee decided, to malnutrition or soil conditions and insect and fungus enemies.

The orchard committee suggest that the Society take steps at once to have a professional horticultural doctor make a complete diagnosis of the conditions of this orchard and every effort possible be made to put it on a paying basis, as it no doubt can be done.

The Pewaukee orchard, the last stop on our return trip, is located in Waukesha county and is of more recent planting and composed largely of the less known and newer varieties. These trees are just arriving at a bearing age and from now on should prove a very interesting and valuable study as well as a guide to future planting in that locality. Good care has been given this orchard and the trees are thrifty and healthy.

THE POPLAR TRIAL ORCHARD AND MY IMPRESSIONS OF FRUIT GROWING IN DOUGLAS COUNTY

By P. A. PETERSON, Superintendent of Poplar Trial Orchard.

The Poplar Trial Orchard has been, intermittently at least, the subject of much discussion and controversy ever since it was planted until the present time and for the last two or three years a place that the land men "point to with pride" to their prospective buyers of farm lands. This pointing, our Secretary and I have "viewed with alarm," as the very good yields of the past two years might readily mislead anyone not acquainted with all the facts to believe that this region is favorable for commercial fruit growing and invest in land with that in view.

Permit me to give a brief history of the Poplar Orchard: The first block of five acres was planted in 1904 and about the same amount in 1905, but a year or two later it was reduced to eight acres, its present size, and a three-acre trial orchard started at Maple.

About thirty varieties of apples and crabs were set out, five or six of native plums, and three or four of cherries.

The soil is what is known as Superior red clay. Drainage was one of the first problems that had to be dealt with, as in rainy seasons we could not get on the land for weeks at a time.

This was effectively remedied in 1908 by laying over 9,000 feet of tile. Tiling, on our heavy and seemingly impervious clay, was something of an experiment and we had our doubts about the water ever getting down to the tile after the trenches were filled in and the earth settled, but it worked from the start and is still working satisfactorily.

Another great trouble that we had before tiling was that the warm rains in September would start a new wood growth, which did not mature before cold weather set in and, therefore, would freeze back each winter.

The orchard, except a triangular piece of about half an acre that is cut off by a small watercourse, making it rather unhandy to cultivate, has been cultivated every year, so this was seeded down in 1907 and has been in sod ever since. It has proved to be quite an object lesson, as the trees on that plot, although manured several times and the grass left to rot down for many years, the trees are less than half as large as where cultivated and the fruit crop has been very light and of small size.

During the last three or four years we have put some manure on the orchard and the results have been apparent by a more rapid wood growth and healthier looking foliage. I believe that the good yields in 1919 and 1920 were largely a result of this manuring.

I would like to stop here, but if I am to tell the truth and the whole truth, I must continue and tell the rest of the story.

Right from the beginning most of the trees showed a slow growth and commenced to "black heart." In a couple of years after planting we had only six or seven varieties of apples left; most of the plums and only two or three cherry trees. Of the varieties of apples now growing, there is only one that appears entirely hardy and that is Hibernial. The others come in about the following order: Duchess, Dudley, Patten Greening, Longfield, (too small to have any commercial value), Wealthy and McMahan. I would also like to include as being fairly hardy Yellow Transparent. These have not been tried out in the Poplar orchard, but there are some in the Maple orchard and I planted some about twenty years ago. They seem fully as hardy as Duchess and so far have been free from blight. Of the McMahan only a few trees remain, but these seem to do fairly well. The Wealthys commenced to show signs of canker blight and decay

several years ago and those of the original plantings are about "all in."

The Duchess and Patten Greening, of which varieties we have the most trees, are also showing disease and are gradually dying out, so, if this orchard is to be maintained, it will be necessary in the future, as in the past, to replant many trees each year.

The Hyslop and Transcendent crabs are doing well. The Transcendents, especially, have made a remarkable growth, but have only produced two crops of any consequence so far. The Hyslop trees are smaller, but bear more regularly.

The plums have done fairly well and for a time it looked as if they might prove profitable, but late spring frosts or early fall frosts have caught them several times, so only four crops have been marketed in 16 years.

The Surprise, Wyant and DeSoto are the most dependable, in order named, with the taboo on Rockford.

Last August I visited orchards at Oshkosh, Baraboo and Gays Mills and, comparing them with our trial orchard at Poplar, I found that the trees had a healthier and smoother bark and that trees ten to twelve years old were as large as ours at sixteen, and came into bearing at an earlier age.

There are scores of small farm orchards in Douglas county containing from a dozen trees to one acre and probably a dozen orchards of from two to ten acres; not more than one or two of the latter over ten years old, but as these orchards, with possibly one exception, have been indifferently cared for or neglected entirely, they are of little value in determining the possibilities of fruit raising, but based entirely on results obtained in the Poplar and Maple trial orchards, I am fully convinced that fruit growing, except the small fruits, cannot become profitable from a commercial standpoint. First, because trees are late coming into bearing and are short lived—Hibernals excepted. Second, because, being restricted to a few of the early varieties, there is only market for a limited quantity at the head of the lakes, since we come in competition with southern Wisconsin and Iowa Wealthys and our Duchess, and Wealthys come on just about the time that early winter varieties come in from Michigan and elsewhere.

However, I firmly believe that any farmer in our county, except on some of the light sandy soils, can have a nice little home or-

chard of twenty or thirty trees if he will plant the proven hardy kinds and plant them properly, prune, cultivate, fertilize, and, when they come into bearing, spray. This is all necessary for best results, but I want to place special emphasis on cultivation.

Had this been the Dairy instead of Horticultural Convention, I would like to have told you of the wonderful clover crops we raise up there and the great opportunities for dairying, but you have probably heard all about that before and, besides, I have taken up enough of your time.

THE MANITOWOC TRIAL ORCHARD

OTTO DREWS, Superintendent.

(From Reporter's Transcript.)

I was called upon by the Secretary to appear before your Society and give a report on the condition of our orchard, as it appears to me, and upon another question that was in my mind, as to whether it would prove profitable for any young man to go into the business of producing apples in our section of the country at this time.

Personally, I do not feel as though I ought to come before an intelligent audience like this, who are posted in horticulture, because I am only a novice in that line. Although I have taken an interest in horticultural work for years, I have never had an opportunity to practice it until I came to the place where I am now and we happened to have there the trial orchard. When I first saw the orchard, I formed a very poor impression of it, because it is, in the first place, poorly located. The soil is heavy and flat. We get those heavy rains down there in the springtime and the water seems to remain in the soil such length of time that we are often unable to do what we ought to do for the good of the orchard. It is very seldom during the seven years that I have been there that we have been able to give the orchard all the sprayings that it ought to have had. Last year we were fortunate, in a way. We were able to give it three sprays, but we were compelled to omit the first one and the most important one, the pink bud spray. We were absolutely unable to drive a team of horses in that orchard, so we could not do it, but we got the other three sprays on and the apples showed up in pretty fair shape.