

## Prevalence of Peach Yellows and Little Peach Decreasing

L. Caesar, Provincial Entomologist, Guelph, Ont.

I AM very pleased to be able to report that there is a continuous rapid decrease in the number of trees that have to be destroyed each year for Yellows and Little Peach. In 1911 between fifty and sixty thousand trees were destroyed; in 1912, between twenty and twenty-five thousand, and in 1913, between five and six thousand, a decrease in two years of from fifty to sixty thousand to about six thousand. This will be good news to peach growers and it gives us all hope for a still further reduction. We ask the growers not to grow too confident, but recognizing that the work is progressing well, to give us their hearty, intelligent support year after year that we may, if possible, exterminate these diseases. We should not forget that it is very probable that the last two seasons have not been at all favorable for the development and spread of these diseases. If so, we are glad that we have been able to take advantage of nature's aid and so reduce the danger of rapid spread in future seasons more favorable for the disease.

Mr. Biggar, the provincial inspector, and myself, are well pleased with the work in every township but two, Grant-ham and Niagara. The disease is only moderately common in these townships, but the territory is too great for any one man to cover satisfactorily no matter how experienced he may be; the inspector, however, in each of these cases was an inexperienced man. There should be two of the very best men that can be secured appointed in each of these townships, at least for Yellows and Little Peach. We

hope this advice will be acted upon next year. Mr. Biggar and I, so far as it is possible, will try to give these townships the larger part of our time, so that the work may progress. We have been fortunate in retaining most of our best inspectors, and we are glad to be able to report that they have done loyal and excellent work for their townships, better work than most growers realize.

To Mr. Biggar, the provincial inspector, whose energy and enthusiasm in the work is unfailing, and whose tact and knowledge are of the greatest value, both to inspectors and growers, very great gratitude should be felt by every man who is interested in the welfare of the peach industry. Owing to the pressure of the new work of nursery inspection, and to numerous other duties, I entrusted to Mr. Biggar this year almost the total charge of the Yellows and Little Peach inspection work, knowing that he would do it well.

Observation of the results of so-called cures of the disease have led me to change my opinion that all such cures are only imaginary—they have all failed. The only remedy yet seems to be eradication; dig out the diseased trees at once, and burn them.

Experiments last year, repeated this year, show that if peach pits are taken from trees that do not show the disease until later on in the season, and if these pits are cared for in the best way and cracked in spring before putting out in rows, often as high as seven or eight per cent. will germinate. I have tested now over three thousand diseased pits. Some of these from lack of experience I allowed to become too dry before planting and consequently a very small percentage

grew. This was true also of healthy pits kept as checks but of the others that were cared for properly from one lot of one hundred in 1912 there grew seven, and from another lot of seven hundred and fifty in 1913, fifty-nine grew, or nearly eight per cent. Mr. McCubbin, the Dominion Plant Pathologist of St. Catharines, obtained very similar results.

So far the seedlings from these pits have shown no sign of disease. Mr. McCubbin and I have now about one hundred and sixty of these seedlings in one lot and will watch them to see whether they will show disease, and if so how soon.

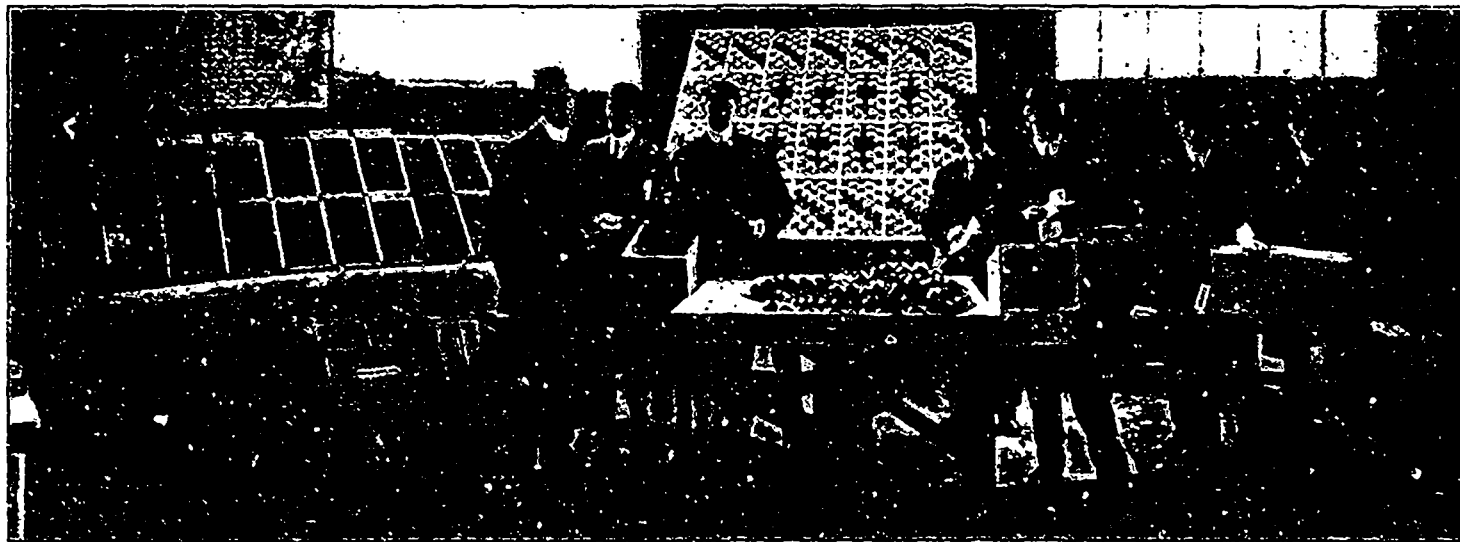
More than two hundred buds from diseased trees were budded into healthy seedlings and four year old trees a year ago. Only one tree, one now five years old, shows possible symptoms of disease. The rest are still healthy. I have budded two hundred more seedlings this fall, believing a considerable number of the trees budded in 1912 will begin to show disease symptoms by next September. I am not at all surprised that they have not done so earlier as the trees are all growing vigorously.

From inoculation of blossoms, from inoculation of trees with sap, from pruning tests, bark rubbing tests and the other experiments up to the present no disease has followed, but this is no proof that none will follow.

Before repeating these experiments I think it is much wiser to wait a couple of years for results. The work has been carefully done and covers pretty well the field which I thought most desirable from the standpoint of important information on the control of the disease.

No new discoveries, I believe, have been made elsewhere on these diseases, and apparently no one is much nearer the discovery of the real cause of either Yellows or Little Peach.

\*A paper read at the annual convention of the Ontario Fruit Growers' Association held recently in Toronto.



The Exhibit of the Dominion Department of Agriculture at the Recent Ontario Horticultural Exhibition  
Demonstrations in apple packing were given daily at 10 a.m. and 2 p.m.