

on pear and plum only ; but the second year it was all through the peaches. In Kingsville likewise it was on pears and plums first, and the next year we found it on the peaches.

What is the object of this discussion : is it not to bring out the known state of affairs in Canada in connection with this insect, its distribution, abundance, etc. ?

THE CHAIRMAN : Yes, and then what can be done to remedy that state of things.

PROFESSOR WEBSTER, Wooster, Ohio : I really do not know whether or not I can tell you anything new that will help you in your troubles. I have had experience enough with the San José Scale, goodness knows, but there are a lot of things yet to learn that I do not understand, and I should like to have it understood that I am not going to explain all San José Scale puzzles. I have a whole note book full of them that I cannot yet explain. You speak of the introduction of the San José Scale into Canada, but in another paper I will give you, I think that I can show you that it is not absolutely necessary to trace all introductions back to the two New Jersey nurseries. We had a nursery in Ohio of which I have never been able to find sufficient proof to convince me that there was not an introduction into that nursery before it could have been gotten from New Jersey. I cannot understand how the premises could be so thoroughly infested since that time. I have no proof of course but it has been a marvel to me and I do not yet understand it. I think I can give you some information at least that will point to a possible introduction in the east, independent of these two nurseries. In regard to the scale becoming established I will give you an illustration of a puzzle that came up. I wanted to get them into the insectary so that we could watch them closely. I planted some fruit trees in the insectary, not wishing to place the scale on those outside. I tried for two years to get the scale started in the insectary on those fruit trees, and it was only after two years that I succeeded. Three times I got limbs from infested trees outside, brought them in, tied them to the trees but we could not get one of those rascals to get off the old original limb and settle down where any sensible insect would. Another instance : I know of a row of peach trees where the pits were said to have been planted where the trees were growing, and about two and a half feet upward from the surface of the ground the trunks were totally crusted with scale. After a half hour's search I could not find a single scale on the limbs, and an apple whose limbs intermingled with those of the peach had no scales on it whatever. There were no infested trees near by.

As to natural enemies I have not found any in Ohio that give any hope whatever of any immediate relief. I suppose that in the course of years our native insects will prey upon it but they have yet to cultivate an appetite for it, just as we do for our oysters. I noticed the little black *Pentilla* very abundant in the orchards of northern Ohio last fall, but this spring I found that they had evidently been killed off by the winter just about in proportion as the scale was destroyed, so that the problem is in precisely the same position that it was before. This year there are not more than half as many of the natural enemies as there were last year. Speaking of the elm, if it is not burnt I can send you a section of an elm tree that is as badly infested as any fruit tree I ever saw, but I have not generally found it as abundant on the elm as on the fruit trees.

MR. FISHER : Do you find it often on the elm ?

PROFESSOR WEBSTER : I have found it bad in the nurseries and have found it in a small orchard growing up in the midst of the woods, where the young elm shoots were growing up from the old roots, these shoots being pretty badly infested with it. Wherever I have found elms intermingled with infested fruit trees, I have found the elm more or less infested but not always as badly. The first experience I had with the scale was in December 1894, when it was sent me from an orchard in southern Ohio, and the trees were very easily traced back to the nursery where they were grown. The first infested trees sent out from that nursery were not peach, because the peach stock was grown in another part of the premises and they were not infested, the points of infestation being near where the apple, plum and pear stock were grown, but since that we found it upon the peach. I did not know what was best to do at the time and the owner was in a desper-