

## THE SAN JOSE SCALE STILL SPREADS

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**T**HE San Jose scale is slowly but surely spreading from all the old infested spots in Ontario. Only those who have been in close touch, and have taken a keen interest in the spread of the scale, are aware of how far it has spread since the Act was passed in 1898.

When I was appointed scale inspector in February of that year it was expected by the department that all the scale in the province would be destroyed and that by passing an Act to prevent trees coming in from the United States we would soon be free from it. Instead, there is more scale in Ontario to-day than ever before.

It spreads so quietly and insidiously that it may be in an orchard for some time before the owner is aware of its presence. I do not know of a single case where scale has been found in an orchard, and where it was allowed to remain long enough to spread from the original tree, that it has been cleaned out. The reason for this is plain when you are conversant with the way it spreads. Very frequently trees nearest an infested tree are practically free from the pest, while those at a considerable distance are badly infested. It is liable to break out anywhere within a mile of the original infested tree.

Despite the fact that some of the professors of this province scoffed at my opinion that the principal means of its spreading is by the winged males I still hold firmly to that opinion. These winged males carry the infant, or larvae, from an infested tree and thus perpetuate the species. Otherwise the scale would be exterminated because the tree would soon die and the death of the scales on it would follow.

My reason for considering the male scales the chief medium of its spread is the one of choice. Some varieties of trees will stand in the midst of a very badly infested orchard and be almost free from scale, while

those around it are literally covered with it. I cannot see why some people consider it such a ridiculous idea. Take for instance the spread of the codling moth. Every one knows that its spread is by the moth herself, which flies around and deposits her eggs on the apples, not indiscriminately, but after making a choice. Every orchardist who is at all observant about insects, knows that some varieties of apples never have worms if there are plenty of others to be attacked. The moth distinguishes the varieties when the fruit is so small that we ourselves could not tell what kind it was if we did not see the tree on which it was growing.

Another reason for thinking the male scale is the culprit has been obtained from information gathered after an infested tree has been planted in an orchard. I have known cases where the tree had stood for two or three years and then, on becoming aware of the presence of the scale the owner destroyed the tree and there has never been a scale found there since. But I have known other cases where such a tree was left for a time, and just as soon as it became overloaded and a spread was necessary for the perpetuation of the species, the scales could be found not only close by but at a distance. Especially is this so if varieties near are not to its taste. In a district where the scale is bad growers frequently say, "No, you never find much scale on those trees. They do not seem to like them."

I have said that I do not know of an instance where the scale had spread from the original tree or trees, and I wish to emphasize the words "spread from," as there are. I think, somewhere about 100 places in different parts of Ontario where the scale was caught in time, and not a scale has ever been found there since. A notable instance of this came under my observation this