

who will risk the penalty and break any law; but there has been very little smuggling in this connection. That is a general statement which I believe to be accurate. Both the Federal and the Provincial San José Scale Acts have had some opponents from the beginning, but it was a matter which the Governments had to consider for themselves, and they did what they thought wisest, after considering the matter as carefully as possible. After this it is probable that some measures will be adopted in Ontario by which fruit growers will be allowed to treat their trees themselves, and every one will then have to take his chance as to what losses he may suffer from this justly dreaded insect.

*By Mr. Spraul:*

Q. By spraying?

A. Yes, chiefly by spraying, also by fumigation with hydrocyanic acid gas or by treatment of the trees with crude petroleum, which is claimed to be a sure remedy. Unfortunately many of the remedies which have been claimed to be specific which would surely effect the object of destroying this pest, have not proved to be so when tested. First, there was the ordinary kerosene emulsion, made from coal oil and soap suds, which it was claimed would destroy the San José scale, and it will if put right on every insect, but this insect is so exceedingly minute and it quickly covers the trees so extensively that it is difficult to treat trees thoroughly. What is necessary is a practical remedy, that is, one which will accomplish what is claimed for it, and which can be applied easily and at a cost which will not exceed a reasonable value of the tree to be saved.

Now, with regard to the danger from the San José scale, I have often said, and still maintain, that this is the most difficult insect we have ever had to contend against. It is extremely small, and when in small numbers most difficult to detect, and even when occurring in large numbers, a general appearance of grayness on the bark is the only indication of its presence, to those who are not acquainted with it, and it is thus easily overlooked. The scale must be present in very large numbers to thoroughly change, or even to a slight degree, the colour of the whole tree. Again, it breeds very rapidly, so that from a single fertile female there may be ten in one season the incredible number of three thousand millions. This marvellous power of increase, and its inconspicuous nature, render it a task of the greatest difficulty to control it, because if a fruit grower who finds his orchard infested hesitates for only a short time as to whether he will treat his trees or destroy them outright, the insect may spread to other trees or other orchards adjoining his own. In the United States the San José Scale has spread with great rapidity during the last two years. This was largely owing to the Spanish-American war, during which many matters of only domestic interest were left in abeyance till that, as it was thought, much larger issue was disposed of. In many states this resulted in drawing off attention from proposed legislation looking to the control or eradication of the San José scale. Many states now find that the insect has spread very much indeed, among their orchards, and they now have to do what the Ontario Government is going to do, namely, allow fruit growers to treat infested trees, in short, to make the best of a bad job. In some states the fruit growers say that treatment by the legislature is not practicable owing to the extent to which the scale has spread. This, what is claimed by many, is also the case in Ontario. They say that the pest is now so firmly established that it would be such an enormous expense to treat it, or to destroy the trees, that it would be unjustifiable; now however, as the fruit growers themselves are responsible for the consequences, whatever these may be. First of all they persisted in buying nursery stock from states which were known to be infested; then tried to belittle the danger of allowing this insect to be introduced and finally have insisted on the Provincial Government relinquishing its efforts to control it and save them and the country from loss. It seems hard, however, that those who tried strenuously to do what was best and right in controlling this pest, should have to suffer from the ignorance, supineness, or carelessness, call it what you will, of others, who had not suffered; but that is frequently the case.