

cows on timothy hay and straw never made profit in the dairy; neither did feeding swine on purchased mill feed and home grown grain make profit in the pig pen. Then, the great necessity with cows and hogs is to supply, first of all, a cheap, succulent bulk or roughage, and this, of course, to be supplemented by more or less ground feed. This "roughage," then, is supplied by corn ensilage on the one hand, and turnips and mangels on the other. If live hogs were always to remain at \$5 per cwt. there would be no money in growing them on the grains grown on the farm, or on purchased mill-feed alone. To make a profit on hogs the requisites are lots of pasture crops such as oats and vetches, or peas, rape, alfalfa, etc., in summer, and plenty of roots, as mangels and turnips, in winter, supplemented by ground feed grown on the farm and purchased according as it is the most economical.

Some people never purchase any feed while they have grain of their own growing on hand, with no eye to the market value of either. Oftentimes it pays to exchange the grain grown on the farm for bran, shorts, etc., but to do this is "rubbing against the grain" of the average farmer. Barley is, of course, a good feeding grain, but at times it becomes too valuable to feed to swine. This spring barley was worth, here, 70c. per bushel, and bran and cornmeal about \$20 a ton. A large swine-raiser whom I know had a large quantity of barley on hand, but refused to sell it at 70c. —\$30 per ton, asserting that he wanted it to feed his hogs. He could exchange one ton of his barley for one and one-half tons of bran, shorts and cornmeal; but could not see how.

A pointer. With an early sowing of peas, oats, and vetches, a winter crop, as rye, does not become so necessary. Yet it is well to have some rye growing. It will make a good late fall pasture anyway, and afford a green bite early in spring, when a green bite is of greatest value. Therefore I am planning, and I advise my readers also to follow my example, to sow a patch of winter rye in the latter part of August, at the rate of two bushels per acre, and with it sow ten or fifteen pounds crimson clover. The clover may or may not amount to much, but the added trouble and expense will be small. I expect also, others might too, to sow with the rye some winter vetch, *vicia villosa*. While I shall sow crimson clover with all the rye, I shall risk but a few pounds of the vetch, for I consider it wise to "go slow on new things." This winter crop will make the very best preparation for a crop of late rape next spring.

J. A. MACDONALD

Prince Edward Island, July 7th, 1899.

The San Jose Scale

How Eastern Fruit Growers View It: The Pest Should be Stamped Out

To the Editor of FARMING:

During the past few weeks, while I have been spending my time in the eastern part of the province, giving instructions in the spraying of fruit trees, plants, etc., and endeavoring to induce the growers to better care for their plantations in other ways, I have been greatly interested in and also somewhat amused at the controversy that has been carried on through the columns of the different publications over the San José Scale, and the actions that are being taken by the owners of large plantations in the Niagara Peninsula. I find that the people in the eastern part of Ontario are greatly interested in what many of them term the "Scale Fight," and they are watching very closely the actions of the Government, and everyone expresses the hope that the past methods for stamping out the much-dreaded pest will be continued. The growers in the East have sufficient reason to be greatly interested, for as yet little, if any, of the scale has been detected in their terri-

tory and they do not wish to have it introduced through carelessness of the western growers.

During the past three or four years we have been educated to the belief that this is the most injurious insect that has ever infested the fruit trees of America, and that, although its work is slow, it is, nevertheless, most certain. The subject has been discussed at great length at all the meetings of the fruit growers' associations of the different provinces and of the states in the American Union. But one conclusion has been arrived at, and that is that it is a most dangerous pest and that it must be stamped out at any cost. The Governments of our land passed acts toward that end, and the work of freeing ourselves of the dreaded pest was begun. Everything seemed to be moving along smoothly until *someone* made a decided "kick," and, as a result, the present unpleasant state of affairs has been brought about.

We are extremely sorry that the present excitement has been created and that the Provincial Government appears to be at a standstill in the matter and has appointed the much-talked-about San José Scale Commission to ascertain if the Scale Act was too hard on those so unfortunate as to have the pest in their orchards. Far better would it have been had the inspectors gone on with the destruction of the infested trees in accordance with the law. It may be that a few growers might not get what they think sufficient reward, but it must be remembered that a great industry of a country is at stake and that the least carelessness may allow the pest to become widely distributed and cause the financial ruin of hundreds of growers. We cannot understand why a grower should demand high reward for a tree infested with the San José Scale when, if what we have been taught be true, the tree will die in two or three years at most, and also that there is no practical treatment for such infested trees. We should view the situation as of consequence to the nation, and because one or two feel they have not been justly dealt with, it is no reason why the Act should be repealed and the whole of the country suffer as a consequence.

"Pro Bono Publico" tells us that the scale is a comparatively harmless affair. Why did he not at the same time let us know who he was and whether he had made a close study of the habits of this particular insect? Is he an entomologist of note? Are we to accept his statement as a correct one when many men who have devoted their lives to insect study, men from all nations where this insect is known, give contrary evidence and declare that it is to be dreaded above all other pests? Has this gentleman lost a few trees for which he thinks he has not received sufficient compensation?

During the past few years the people of this country have been putting out extensive plantations of fruit trees, entertaining the hope and expectation that a market would be found in foreign lands for the products of such plantings. At present our fruits are doing well on the British market. If these and other markets should be closed to the growers of this country, and they certainly will be if the report goes abroad that the San José Scale is widely distributed and little or nothing is being done to rid ourselves of it, there will be no sale for the fruits that must soon be the consequence of such heavy plantings. Now is the time to fight the pest while it is located in but few districts and in those districts affects but few trees. Even in the eastern part of Ontario the people are afraid to purchase fruits and nursery stock from western growers lest they may carry the scale with it. Thus we may see how the knowledge that the scale exists will affect our trade.

Governments have in the past spent, and are at present spending large sums of money annually to educate the public as to how to fight the ravages of insects and fungi. This is money well spent, and the fruit industry will soon reap benefits therefrom. While the Government is doing this we trust it will not fail to exercise every precaution to eradicate what we believe to be the most terrible insect pest — the San José Scale.

Fruitland, Ontario.

JOHN B. PETTIT.