

press on the teaching of agriculture in public schools have been practical and to the point and show that he has a comprehensive grasp of the subject. His recent appointment by the Minister of Agriculture as a member of the San José Scale Commission is another testimony to Mr. Dearness' experience and knowledge of the important problems affecting the farmer of to-day and marks him as a man capable of rendering valuable services to agriculture if he had an opportunity of doing so, such as the appointment referred to would give him.

The San José Scale Commission

(Specially reported for FARMER.)

The San José Scale Commission held a series of meetings in the peninsula between Lakes Erie and Ontario in the last week of June. At three points—Niagara-on-the-Lake, St. Catharines, and Windsor—orchards have been destroyed on account of the scale. A general review of the evidence shows that orchardists who have had trees burned are pretty unanimously in favor of remedial treatment. Outside of those thus directly affected the only witness who took strong ground in favor of this course was Mr. Martin Burrell at St. Catharines. He has taken much pains to study the situation, and gave his evidence in such a manner as to make a strong impression. He quoted Prof. Slingerland to the effect that proceeding on our present lines would destroy very many of our orchards and still leave the scale in the forests to break out again and again. At Fonthill and Grimsby, indeed, it may be said that all the fruit-growers of that district not in the immediate vicinity of scale-infested orchards are strongly in favor of going on and burning infested and suspected trees. Some advised going on even if it cost a million or more, others would continue for a limited time—two or three years. Those who are now so fiercely opposed to the Act said that they were in favor of it a year ago.

The Niagara-on-the-Lake growers contended that it is too widely distributed and too firmly established to be got rid of now by any means; that, like the potato-bug, it is here to stay, and that the wiser course is to try to find means of controlling and remedying it. They held, too, that it is not so destructive in Canada as it is reported to be in the longer and warmer season of the Southern States, and in support of the opinion pointed to the fact that although it had been in their neighborhood six or seven years it had done less damage in the whole township than the scale officers had done in individual orchards. Those whose orchards are merely suspected claim that the scale inspectors coming from infested orchards are liable to bring the scale with them on their hands and clothes. Several of the Niagara growers urged that inspection should cease from the 1st of July to the end of October, the period during which the young lice are running over the trees, because the inspectors could not avoid, if a few trees are affected, carrying it to the other trees in the orchard. They pointed to examples, one of which was the case of a lot of young peach trees examined; four were found infested in the spring and burned, in the same lot in the fall twenty-seven were found to have it.

The insect is extremely minute in size, except when moving in the larval stage and shortly after settling, it is not greatly unlike the bark of the tree in color, and it may be on any part of the trunk, branches, or twigs. These facts indicate what laborious work searching a tree must be. Mr. Benn said that he estimated each inspector occupied on his apple trees about a half-day to each tree. He computed that it would take the staff of twelve men at present working in Niagara 400 days to examine the apple trees in that township, not to speak of the far greater number of other kinds of trees.

At Winona the difficulty of distinguishing the San José Scale from other kinds that closely resemble it was brought to the front. Mr. Foran testified that what the inspectors

had pronounced San José Scale the official entomologist had called Forbes' Scale. Two hours' unsatisfactory re-examination of marked trees in a condemned peach orchard belonging to Mr. Geddes to obtain authentic specimens of the insect emphasized the difficulty.

Almost without exception the witnesses favored larger compensation for destroyed trees than one-fourth of the official valuation. The majority thought the valuation should not be left entirely to one man. A few favored the raising of part of the compensation by taxing fruit, or orchards, or local municipalities concerned.

The nurserymen approved of fumigation and the continued prohibition of nursery stock from the United States. Two of them thought they had noticed some injury to young trees from fumigation, one an instance on cut-leaved birch, the other by resetting fumigated stock and unfumigated stock of the same varieties alongside each other and noting that the latter made more vigorous growth. They generally favored official inspection of the process of fumigation as it was liable to be neglected or slighted by some nurserymen who feel sure that their own stock is free from scale.

It appears that the San José Scale Act was passed at the urgent solicitation of the provincial fruit-growers. Everyone heartily approved of its purpose to stamp out the pest if possible. A good deal depends on the co-operation of the owners of orchards. Some of the Niagara people argue that its measures are so drastic that owners will try to conceal the presence of the insect in their orchards, even with the prospect of compensation, whereas, if remedial measures were substituted, they would hasten to report the discovery of it to the inspectors though no compensation were expected.

Starters and Their Advantages

By B. T. Songergaard, at the National Cheese and Butter-Makers' Convention

For the last two or three years the starter question has been discussed among the butter-makers, and at our conventions. Although something new has sprung up now and then, it is not settled yet; at least, we have not adopted one certain kind for general use and that is one of the many reasons why our butter is not uniform.

In comparing the different kinds of starters I shall use the home-made starter as a scale, as our butter dealer has occasionally been scoring. I have not had any public test between the home-made starter and cream starter. I find the race too uneven. I prefer good buttermilk to a poor home-made starter. Buttermilk produces a quick, South Water Street flavor, but not what I call a delicate aroma. As a starter (not accounting commercial starters) I prefer skim-milk.

I select a patron that I know is clean about milking, and who lives not far from the creamery. He must have healthy cows that have calved from one to three months ago. He brings me the milk I need, from these cows, of the morning's milking. As soon as received I place the milk in cold water and leave it there about three hours to air out. Then I skim it and heat it to 85°, place the can in a box and pack hay around it, so that the temperature will maintain about the same degree. I double a piece of toweling and use for cover, which will allow the gases to escape. I stir it occasionally for two hours, not after. If it coagulates before the cream is ready I place it in cold water without stirring it. Before it is strained into the cream it should be skimmed and stirred thoroughly.

Now, as to what kind of a starter we shall use. I say, make your own from full milk as before directed, but be very careful in selecting the milk. When I left Denmark, the pure culture had not come into general use, but they had studied the home starter thoroughly. If a creamery could not produce good flavor, the butter-maker would