

Can San Jose Scale Spread From Infested Fruit?

In the November issue of THE CANADIAN HORTICULTURIST it was pointed out that there is no danger of San Jose scale spreading to orchards from infested fruit. Many prominent entomologists expressed their opinions. As the question is one of great importance to fruit growers, a number of others were asked to contribute their views.



A Seedling Gooseberry

Originated and grown by P. Barrett, Truro, N.S.
See page 4.

their location, and the only danger would be that crawling young coming from these scales might be brought in contact with plants upon which they could live; but these young can travel only a very short distance, and if we remember that purchased fruit is rarely eaten where there are fruit trees, and that parings and refuse from infested fruit would stand very little chance of being deposited close to such trees, we can see at once that the chance of infesting such trees is exceedingly slight, and indeed may be entirely ignored in practice.

"The only way in which I should feel at all certain of succeeding in infesting fruit trees by means of infested fruit would be by securing well-infested samples of the fruit and carefully fastening these on small branches of living trees, and this too during the spring, summer or early fall months rather than during the season when infested fruit is most likely to be available for such a purpose. From these standpoints, my answer to your question would be that there is very little danger of the scale ever being disseminated by means of infested fruit."

Prof. C. D. Jarvis, Horticulturist, Agricultural Experiment Station, Storrs, Conn.: "There is little danger in disseminating San Jose scale by the importation of infested fruit. My belief is based upon a knowledge of the habits of the insect. The young insect, after moving around for a few hours, or at most for a day or two, settles down, secretes its waxy scale and never leaves that position. It is possible that

when harvested, the fruit may carry some of the young moving scales, but by the time it reaches its destination they will have become fixed. It is quite probable that the scale continues to breed while the fruit is in storage or during transportation. Assuming this to be true, the only danger lies in the disposition of the

parings. If they should happen to be deposited near any of the host plants of the insect during the breeding season, there is a possibility of its getting a foothold. In view of the lateness of the season, and in view of the very delicate nature of the young insect, its survival is extremely doubtful."

Prof. Leonard Haseman, Assistant Entomologist, College of Agriculture, Columbia, Mo.: "While it can readily be seen that under perfectly favorable conditions some scales could be shipped long distances and transferred to fruit trees where the fruit is used, it is not at all likely that any would spread in this way. It would be necessary for the fruit to contain full-grown females, and where the fruit is used the peelings would have to be thrown where the young could readily crawl to the trees or other shrubs on which they could feed, as the period of activity of the young is not over forty-eight hours. In general the peelings and cores of apples and pears are thrown into refuse barrels and used for food for hogs and the like. Considering everything, there need be no fear concerning the spread of this pest upon fruit. In every case of which we have a record in this state, the spread has been entirely through infested nursery stock."

The state entomologist for Minnesota, Mr. F. L. Washburn, expresses his opinion as follows: "I regard the presence of San Jose scale as a greater or less menace under almost any condition. While fruit peelings infested with San Jose scale, thrown out on the



Do You Like Grapes?

Photograph taken in his garden at Hespeler, Ont., in September, 1907, by Mr. G. W. Tebbis, Director, Hespeler Horticultural Society. See page 2.