Atmospheric HCN Fumigation for Latania Scale on Avocado Fruits

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CONCLUSIONS*

In the 450 Cu. ft. fumatorium with a load of 200 boxes filled with excelsior (but without fruit, excepting what was placed in key positions for the determination of scale kill and fruit injury), the dosage of liquid hydrocyanic acid varied from 80 cc. to 400 cc. or from 17 cc. to 88 cc. per 100 cubic feet. The highest dosage, 88 cc. per 100 cubic feet, was greatly in excess of that necessary to kill the latania scale, but it was given to determine what injury to the fruit might occur. The injury that resulted was slight in view of the excessive dosage used. The experiment involved mature sound fruit of the Fuerte variety.

The lowest dosage, 17 cc. per 100 cubic feet, resulted in a complete kill of latania scale. Two experiments were conducted with a load of packed avocados. A dosage of 24+ cc. of hydrocyanic acid gas resulted in complete kill of the scale.

As a result of all the tests, the authors feel justified in concluding that latania scale on avocado fruits can be killed, under the conditions indicated, by atmospheric fumigation.

A dosage of 25 cc. of liquid hydrocyanic acid, or its equivalent, per 100 cubic feet is recommended. With a load of 50 avocado boxes per 100 cubic feet, exposure should be for one hour, with electric fan circulation.

*Editor's Note: Only the conclusions are given here; reference may be made to original Bulletin for complete article.