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W. A. Schoenfeld, Director
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PRUNE WORMS IN THE MILTON-FREEWATER DISTRICT

By B. G. Thompson, Asst. Entomologist

Three species of Lepidopterous larvae have been found working in prunes in the Milton-Freewater district. They are the peach twig borer, codling moth larva, and an insect which appears to be the destructive prune worm or a related species. This latter species was by far the most numerous. As no adults were obtained of this species, specific determination was not possible.

Control for Peach Twig Miner.

The recommended control for the peach twig miner is an application of lime sulfur spray applied in late fall or early spring (see Station Circular 38). The twig miner appears to be increasing in numbers in those orchards that have been receiving dormant sprays of oil. The practice of dumping the prunes infested with the twig borer near the orchard also probably aids in the building up of this pest.

Destructive Prune Worm (Mineola)

This insect during recent years has become an important pest of the prune in southwestern Idaho. Entomologists of the University of Idaho report that there are two generations and a partial third annually. The insect spends the winter as a partly grown larva in a small wart-like case or hibernacula constructed in the crotches of buds, twigs, and in bark depressions. The larvae emerge from these winter quarters in early spring and bore into the blossom buds, feeding on the flower parts. The later generations feed on the fruit. The Idaho entomologists have found that the hibernacula proved to be practically impervious to most spray materials, and the dormant sprays including oils and lime sulfurs were not effective in controlling the insect. After the larvae entered the buds, they seemed to be nearly as well protected as when in the hibernacula. The difficulty encountered with most the sprays seemed to be the failure of the insecticides to reach the larvae.

Suggestions for Control at Milton-Freewater.

It was found by experimentation, however, that a pyrethrum-kerosene emulsion applied soon after 94 percent of the larvae had left the hibernacula gave good control. The pyrethrum extract used was pyrocide-40. No injury has been reported from the use of this spray.

Suggested Formula for Making the Spray for Mineola.

Kerosene	6 gallons
Soap	6 pounds
Pyrocide 40	1 quart
Water to make 100 gallons	

The soap is cut into thin slices and dissolved in hot water. This is poured into the spray tank with 10 or 15 gallons of cold water and the engine started. The Pyrocide 40 is poured into the oil, stirred for a few minutes, and this mixture of oil and pyrethrum is added slowly to the spray tank and emulsified by being run through the pump under pressure. After a few mintues the remainder of the water is added and the spray is ready to be applied. If hard water is to be used, consult your county or experiment station agent for additional information.

*Timeliness of application is important. The spray is applied soon after 94% of the worms have emerged from the hibernacula. This is determined by making emergence counts of the overwintering larvae at frequent intervals.

These suggestions for control are made on the assumption that conditions in the Milton-Freewater district are similar to those in southwestern Idaho, as the Entomology department of the Oregon Experiment Station has had no opportunity to do experimental work with this insect.

*In the region of Parma, Idaho the worms have emerged from their winter quarters about the first to the fifteenth of April.