Granulated Insecticides Superior to Sprays for
ALFALFA WEEVIL CONTROL

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Field trials in Lassen County demonstrated that granulated heptachlor was more effective against the alfalfa weevil than comparable dosages of heptachlor used as a spray. Applications in the dormant season, or as growth begins in the spring, are believed to kill the adult weevils before eggs are laid.

Alfalfa weevil larva feeding on a leaf in photo above. When mature, the larva is green, about ½ inch long, and has a dark brown or black head. The alfalfa weevil adult, to right, is a brown snout beetle about ¼ inch long with a broad black stripe extending from the head to about half-way down the back.

IN THE NORTHERN mountain areas where the alfalfa weevil, *Hypera postica* (Gyllenhal), often occurs in numbers great enough to cause economic losses, insecticide applications during the dormant season or the early spring offer an effective and convenient method of reducing crop losses. Trials were conducted in 1961 and 1962 to evaluate the effectiveness of several different insecticides, dosages, and times of application. Plots located in Lassen County were treated with both sprays and granulated insecticides using hand equipment. Some plots were treated in the fall on November 18, 1962, and others in the spring on March 29, 1962.

Sampling for alfalfa weevil larvae took place on June 12, 1962, just prior to the removal of the first hay crop by the grower. Ten sweeps with a standard sweep net were made in each plot.

In the untreated plots, an average of 314 larvae were collected in 10 sweeps. Heptachlor granules applied in the spring at the rate of one-quarter pound of active material per acre reduced larval numbers 93%. Sprays applied in the spring at the same dosage gave 83% control. The use of higher dosages (one-half pound active heptachlor per acre) in the fall resulted in 92% control with granulated material and 86% control with sprays. One pound per acre dosages of heptachlor in the fall resulted in a 96% reduction of larvae with granulated material and a 91% reduction with sprays. Telodrin, an experimental spray applied in the spring at 2 ounces of active material per acre, reduced larval numbers 96%.

Results

These results show a consistent advantage for granulated heptachlor over the spray material. The more effective control with granules is believed to be the result of the greater persistence of that formulation.

Further experimental trials are under way in several sections of northern California to obtain additional information on the effectiveness of heptachlor and other compounds. Dosage rates and dates of application are being tested to determine a combination resulting in the most effective and economical control of the alfalfa weevil. Insecticidal treatments timed to kill the overwintering adults before eggs are laid may also aid the survival of important beneficial species of insects.

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141