Control of Lygus Bugs in Alfalfa Seed Fields With DDT Dusts Requires Care in Application

Ray F. Smith

Within the past fifteen or more years considerable evidence has been obtained concerning the use of insecticides to control lygus bugs as one of the more important factors affecting the yield of alfalfa seed fields. Lygus bugs are the most important families of insects affecting the yield of alfalfa in many fields.

Recent investigations on the control of lygus bugs have been conducted during the past two years in various parts of the United States, notably in the alfalfa-growing areas of California in cooperation with the xericulture extension service of the University of California or two farmers of the area. One objective of these investigations was to develop a suitable control method for lygus bugs so that this one uncertainty might be reduced in seed production.

Proper Timing of DDT Dust Applications

The basis of good control of lygus bugs is the proper dusting and control action. At present this may be accomplished by dusting according to the trend of the lygus bug population count.

Population counts are determined by placing a hundred squares of gauze or 100 inch pieces of cloth, each 6 inches on each side, in the territory of interest. The number of bugs obtained is used for the basis of determining the number of dusting operations that may be required. This method of counting is not as accurate as obtaining a population count by placing a small wire cage in the territory to be dusted and then counting the number of bugs in the cage.

Results obtained would indicate that 60 per cent of the population count is a fair estimate of the population at any given time.

The plants of seed alfalfa from which the bugs are to be controlled are still large enough to prevent any loss of seed if they are not dusted. The count should be taken at least once weekly, whenever possible, or whenever there is evidence of a large increase in population count.

The population of lygus bugs is not constant throughout the growing season but may increase or decrease at any time. This factor must be considered when selecting the best time to dust the alfalfa fields.

Control Recommendations

Dust in the bud stage if the population count is high enough to warrant dusting. Dust again in the bloom stage if the population count is also high enough to warrant dusting the alfalfa fields twice.

The following insecticides have been used:

- DDT 50 per cent
- DDT 10 per cent
- DDT 10 per cent
- DDT 5 per cent

The insecticides should be used according to the amount and concentration of DDT dusts to the absolute minimum that will give satisfactory control of lygus bugs.

The other group of beneficial insects that may be affected by dusting is the honeybee. The bee population is usually at its highest in the bloom stage of the alfalfa field. The material injected has produced a considerable agent or virus. This material should be used only on fields which have an adequate water supply and where there is no possibility of the material injurious to the bees.

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