

## Fall Pest Management Practices in Alfalfa Seed Fields to Control Chalcid

Alfalfa grown for seed in California is attacked by a number of pests. These include lygus bugs, seed chalcids, aphids, spider mites, and stink bugs. One of these pests can still be controlled once the crop is harvested: *Seed Chalcids*.

### Seed Chalcid

Chalcid damage varies from year to year and from field to field. In years when we have lower than normal lygus pressure, we often see higher chalcid populations. I've already had a number of calls this year with concerns about heavy chalcid damage in harvested seed lots. To prevent even greater damage next year, control measures must be undertaken in the fall after harvest and during the winter and spring.

During the season, eggs of this tiny wasp are laid inside the developing seeds which the larvae destroy from within. The adult emerges by chewing a hole through both the seed coat and ripened pod, so damage is easily recognized. Chemical control of the chalcid fly is ineffective since eggs, larvae, and pupae develop within the seed and are therefore protected. Late maturing fields usually develop heavier infestations because the insect has a longer period to develop in the crop and more generations may occur. Continuous emergence of the chalcid adult from the seed, and migration from outside sources, make insecticide applications futile.

Field sanitation is the best approach to controlling the chalcid problem, and for the most effective results it should be on an area-wide basis. Fall clean-up practices aimed at breaking the life cycle of this pest are listed below:

- (1) Remove volunteer alfalfa plants and other hosts.
- (2) Prevent seed set on regrowth after harvest, since this offers an ideal over-wintering site for the chalcid.
- (3) Chop or burn the straw to facilitate discing and burying the chalcid-bearing seed.
- (4) Irrigate the stand to rot the chalcid-infested seed and germinate seed shattered during harvest.
- (5) Cover seed hauling trucks to prevent introducing volunteer alfalfa plants along roadways.



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If you have any questions about the content of this publication or suggestions for topics to be included in later issues, please call.

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