



July 17, 2010

Originally published in  
the *Contra Costa Times*

#### SUMMARY

For the home gardener, leafhoppers are primarily a nuisance pest. The transitory and minor problems they cause don't warrant the use of pesticides.

## Transitory Insect Invasion—Leafhoppers

by Emma Connery, UC Master Gardener Program Coordinator

That flying and hopping invasion of little brownish insects is transitory.

*Q: Help! There are some little brownish insects that are appearing on the outside of my windows, on the ceiling of my porch, and even inside my kitchen. They seem to be attracted to light. They fly but they also hop, are less than ¼ inch long, some are green and some are brownish black. What are they and is there something I can or should do to control them?*

*A: The insects are Leafhoppers (Homoptera: Cicadellidae). Here in California we have more than 200 different species of leafhoppers. It often takes a specialist to identify between species but I suspect the species you are seeing is the Beet Leafhopper (*Circulifer tenellus*). Overwintering beet leafhopper adult females lay eggs in the spring on their preferred host plants, rangeland weeds, such as mustards, peppergrass and filaree. The new generation of leafhoppers matures in May and June, just as their host plants mature and dry. The leafhoppers then fly in swarms to their summer host plants in the interior valley where they*

feed on agricultural crops and weeds. In California the largest over-wintering and spring breeding grounds are in the eastern foothills of the Coastal Range, while the summer breeding grounds are in the west side of the San Joaquin Valley. The migratory generation, the one we are seeing right now, is the generation traveling from the spring to the summer breeding grounds, and they are capable of flying several hundred miles. Beet leafhopper populations are the greatest in those years with good rainfall.

#### **Nuisance Pests:**

All leafhoppers are plant feeders and must have green vegetation on which to feed. They have a piercing-sucking mouthpart which they use to pierce plant material, puncturing leaf cells and sucking out the contents. The destroyed leaf cells become visible as tiny white spots. Continued feeding results in the accumulation of many destroyed cells and many white spots. Leafhoppers occur on almost all types of plants,

Reissued 2018-08-01



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including forest, shade, and orchard trees, shrubs, grasses, and many field and garden crops. The food of most species is quite specific, and their habitat is therefore well defined. They absolutely do not feed on people or pets so you have nothing to worry about in that department. If they have entered your home or are a nuisance at entryways simply vacuum them up.

**No Treatments:**

The direct feeding by beet leafhopper causes relatively minor plant damage but its pest status is derived from its transmission of “beet curly top virus” an extremely destructive virus disease of sugar beets, beans, tomatoes, spinach, melons and other crops. The beet leafhopper is the only known carrier in

North America of beet curly top virus. If it feeds on infected plants during winter and spring it can then carry the disease to the agricultural areas in the interior valley. If you have a home garden and are growing any of the crops listed above then there is a chance that the leafhoppers may feed on your crops during their migratory path and in doing so they may transmit the virus. The leaves of plants infected with this virus are dwarfed, crinkled, and rolled upward and inward; veins are roughened and often swollen; roots become distorted, often with a proliferation of hair roots. The home garden situation is not one that would warrant the use of pesticides to manage this migratory insect and there is no treatment for the disease.