



# False Chinch Bugs

Fact Sheet No. 37

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## Biology, Description, and Habits

The false chinch bugs belong to a family of true bugs known as the seed bugs (Lygaeidae) and include members of the genus *Nysius*. These insects are widely distributed in the United States but are most prevalent in the semi-arid regions west of the Mississippi River. False chinch bugs are found throughout Utah.

Adults are small, narrow, gray-brown colored insects about 1/8 inch in length. The whitish, transparent wings have a series of black dots or dashes on the basal half. The eggs are pink, somewhat crescent-shaped and are deposited in cracks in the soil or on various plants. Egg-laying first occurs in late winter or early spring. Hatch occurs in 4-7 days and the small reddish-brown nymphs (immatures) feed, go through a series of molts, and reach the adult stage in approximately three weeks. Four or more generations may be produced per year.

The bugs apparently overwinter in all three stages (egg, nymph, and adult) in some areas of their range, but the nymphal stage is predominate in the west. Activity is resumed in the spring and large populations develop primarily on weeds in rangeland, waste areas, and other uncultivated land. As the vegetation in these areas begins to dry up, the bugs migrate in large numbers to other more succulent food sources. Nymphs tend to cluster together and "swarm" prior to migration. The migration period usually lasts from two to three weeks but may continue for as long as six weeks. In Utah, false chinch bugs are active from about the middle of May to late September, with most specimens being submitted during July.

## Damage

False chinch bugs have piercing-sucking mouthparts and feed by removing fluids from their host plants. Some sources report the possibility of the injection of a toxin during the feeding process, but this has not been confirmed. Damage symptoms are usually restricted to a general wilting of the plant. Heavy feeding may cause leaves to turn brown and die. Well established, healthy plants can apparently withstand considerable feeding pressure from these insects and reports of significant damage are rare. There have been many instances in which literally thousands of bugs have been present and either no feeding activity was observed or

no visible damage resulted in spite of extensive feeding. Damage is most likely to occur on plants that are adjacent to the uncultivated areas the bugs are migrating from. Populations are extremely high along the migration "front" and damage may occur until the bugs disperse over a wider area.

False chinch bugs can feed on a very wide variety of plants but prefer plants of the mustard family. These include Shepherd's purse, pepperweed, and London rocket. In the midwest at least, corn and soybeans may be damaged by the feeding of false chinch bugs, where they cause wilting and browning of leaf margins. Large numbers may congregate under windrows or bales of alfalfa. Crops that contain mustards as weeds are more likely to be damaged.

"Swarms" of clustering or migrating false chinch bugs may be so huge that the ground surface appears to be moving. Accumulations of false chinch bugs over two inches deep were reported in one Utah case. Huge numbers may congregate on porches or the outside of houses and other structures, especially after rains. Another problem frequently encountered with these insects concerns their tendency to invade structures in the path of their migration. They will not damage the structure and are harmless to people and pets but their presence constitutes a nuisance. Utah specimens of false chinch bugs are submitted most often from home yards, (60%) followed by indoor situations (20%), and agricultural crops (10%).

## **Control**

The extent of the bug migration into homes can be reduced by making the structure as insect-proof as possible. Seal or caulk any holes or cracks in the foundation and openings around plumbing, gas, or electrical conduits. Repair broken window screens (although conventional screens are not a fine enough mesh to keep the young nymphs from entering the home) and weather strip around windows and doors. Once the bugs enter the home, chemical sprays are generally too costly and too odorous to be justified. Large numbers of bugs can be easily removed with a conventional vacuum cleaner. Discard the dust bag after collection.

Certain formulations containing endosulfan or malathion are labeled for false chinch bug control around homes. Insecticides labeled for their control in agricultural situations include some formulations of the above plus some formulations of cyfluthrin, methyl parathion, and parathion. Other references mention carbaryl, chlorpyrifos, diazinon, dibrom, and dichlorvos (DDVP), and propoxur as being useful for false chinch bug control. Check the specific product label for the sites and plants the insecticide is registered on, application rates, and harvest restrictions (where applicable).

Effective chemical control generally requires that the bugs be contacted with the insecticide. Residual control is not likely during migration periods as bugs may not stay in treated areas for a sufficient period of time to accumulate lethal doses of the pesticide and any insects that are killed will merely be replaced by other migrants. No matter how effective a product is, it is likely to be "overrun" during periods of peak migration and repeated applications may be required to significantly reduce the number of bugs in the area.

An indirect method of control is to eliminate the weed hosts that harbor false chinch bugs. The use of herbicides or discing and burying the weeds are recommended. Insects feeding on weeds can be treated with a suitable insecticide. False chinch bugs are easily drowned. Heavy watering or the use of a strong hose spray will kill many. Trenches filled with water

can be made around plants or areas to be protected during migration periods.

### **Precautionary Statement**

All pesticides have both benefits and risks. Benefits can be maximized and risks minimized by reading and following the labeling. Pay close attention to the directions for use and the precautionary statements. The information on pesticide labels contains both instructions and limitations. Pesticide labels are legal documents, and it is a violation of both federal and state laws to use a pesticide inconsistent with its labeling. The pesticide applicator is legally responsible for proper use. Always read and follow the label.

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