Kansas State University Agricultural Experiment Station and Cooperative Extension Service
KANSAS CROP PESTS
K-STATE Research and Extension

False Chinch Bugs

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False chinch bugs, *Nysius* spp., occur in weedy pastures, fields, or other noncrop areas throughout Kansas. They typically feed on plants in the mustard family. When preferred foods dry up because they mature or are killed with herbicide, the insects migrate en masse to succulent plants nearby. They usually attack soybeans and sorghum but also feed on cotton, canola, and corn. In canola fields, nymphs can be found under decomposing wheat stubble during the day. Large numbers of insects present in or adjacent to agricultural crops can be problematic.

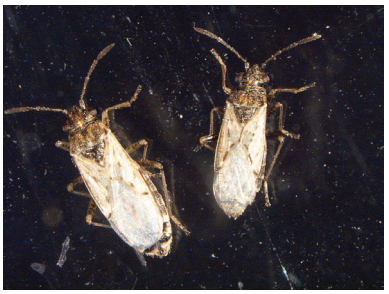

Figure 1. False chinch bug adults

Figure 2. False chinch bug nymphs

False chinch bugs are often mistaken for chinch bugs, bigeyed bugs, and other seed bugs in the Lygaeidae family. Adult false chinch bugs are gray or brown, slender, and ⅛ to ⅙ inch long (Figure 1). Like other Hemiptera, forewings are partially thickened and membranous. When folded, wings form a fairly well-defined 'x' at the back of the body. False chinch bug eggs have a pinkish hue and are deposited in cracks in the ground or around the base of host plants. The immatures (nymphs) are small at first. As they grow, they turn mottled brown with a darker head and thorax and orange spots on the abdomen (Figure 2).

In contrast, adult chinch bugs are darker with white wings folded over the back, giving them the characteristic white "x" marking. Chinch bug nymphs are orange or reddish in the early instars but gray during the last instar. Nymphs have a transverse white line in the middle of the body that is less distinct in later instars. Bigeyed bugs are wider bodied with broad heads and bulging eyes. They do not occur in large masses because they are predators of other insects and mites.

Biology

False chinch bugs overwinter around the base of host weeds or under plant residue. They can overwinter as eggs, nymphs, or adults, but nymphs and adults are the most frequently observed stages, probably because they are much easier to find. Bugs become active with warming temperatures in late winter or early spring. Nymphs then develop into adults, mate, and deposit eggs around the base of weed hosts. Large populations can develop in these weedy areas before weeds are killed and bugs migrate in search of food. In Kansas, false chinch bugs produce three or more generations per year.

Damage: Crops

False chinch bugs have piercing-sucking mouthparts. They feed by sucking juice from the host plant. Feeding activity often has little apparent effect on the plant or may result in a wilted appearance with no lasting damage (Figures 3 and 4). In some instances there have been large aggregations of bugs with no apparent feeding activity or noticeable effect on plants. Thousands of false chinch bugs clustered on a few plants (Figure 4) can wilt leaves or kill plants. Heat- or drought-stressed plants are particularly susceptible (Figure 5). This usually occurs only along fields that border weedy areas or in spots in crop fields where weedy areas existed.

Damage: Gardens and Landscapes

As with crop plants, when natural host weeds dry up, false chinch bugs migrate into gardens or landscapes where

Figure 3. Bugs gather on host plant.

Figure 4. Large numbers on a single plant can kill leaves or the entire plant.

they can be a problem. Larger, healthier plants can withstand false chinch bug feeding. The number of bugs present during a migration is more problematic than their feeding on garden or landscape plants. The bugs can aggregate by the thousands on porches, sides of buildings, in swimming pools, and such. Their small size allows them to enter homes and other buildings and be a serious nuisance.

Figure 5. Leaf wilting caused by false chinch bug damage

Management: Field Crops

False chinch bugs rarely occur uniformly throughout a crop field. The need for a field-wide insecticide application is rarely justified. Spot treatments may be warranted in areas where weeds are dead or dying and bugs move to crops. Mass migrations usually only last a few days until nymphs become adults. They then disperse to find new host plants and deposit eggs. If crops can withstand this compressed feeding period the problem will resolve itself without the need for an insecticide. False chinch bugs are easily washed off crop plants and drowned. Often a timely thunderstorm will take care of the problem naturally. When insecticide application is warranted, several are registered and effective. With proper carrier volume to reach where bugs are feeding, insecticides usually provide acceptable control.

Management: Gardens and Landscapes

Few management options are available for false chinch bugs in gardens or landscapes, but most years none are needed. Keeping plants well watered allows them to tolerate bug feeding. Mass migrations usually last a week or less. If insecticide applications are deemed necessary, sprays applied in early morning when bugs are most active provide best control. To prevent false chinch bugs from entering buildings, ensure that all doors and windows have adequate seals. Bugs that get indoors can be vacuumed or swept up and discarded.

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