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Leaffooted Bugs: An Increasing Problem

In recent years, your customers may have asked about a strange "new" bug in their gardens, especially on tomatoes and pomegranates. These insects may be leaffooted bugs. Although they are native to the western United States and not new to California, leaffooted bugs seem to be occurring more commonly in gardens. These distinctive bugs get their name from the small leaf-like enlargements on the hind legs (Figure 1). They are medium to large sized insects that prefer to feed on fruits and seeds and are often found in groups.

Recognizing Leaffooted Bugs

Adult leaffooted bugs are readily recognized by their characteristic hind legs. There are three common species of leaffooted bugs in California: *Leptoglossus zonatus*, *L. clypealis*, and *L. occidentalis*. Adults of all three species are about 0.75 to 1 inch long, have a narrow brown body, and have a white zigzag pattern across the wings. They have different feeding preferences, but management is similar.

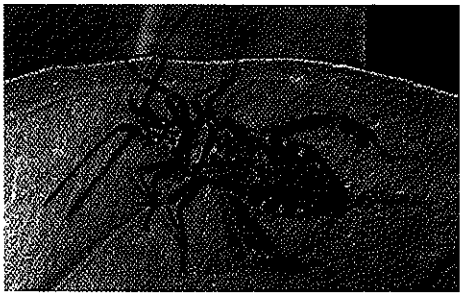
The brown, cylindrical eggs of all three species are laid end-to-end in a string-like strand on the host plant (Figure 2), often along a stem or leaf midrib. Eggs hatch into small nymphs that have dark heads and dark legs on bodies that range in color from orange to reddish-brown (Figure 3).

Leaffooted bugs overwinter as adults, typically in aggregations located in protected areas, such as in woodpiles, barns or other buildings, palm fronds, citrus or juniper trees, under peeling bark, or in tree cracks. Overwintered adults stay hidden from fall until late spring. When the weather gets warm, adults disperse to find food sources. Adults are strong flyers that may feed initially on the seeds of winter weeds and later move into gardens and landscapes in search of early-season fruit and a place to lay eggs.

Populations vary from year to year but are typically highest after mild winters that allow high survival of overwintering adults. Seasonal fluctuations in the number of bugs can also be related to rainfall, food availability, and the prevalence of natural enemies.

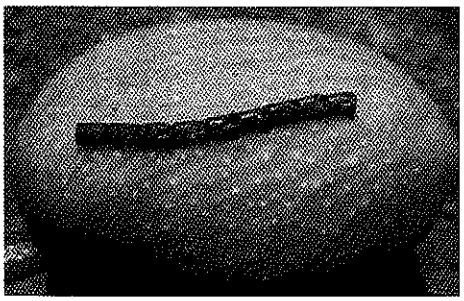
Damage to Plants

Leaffooted bugs have piercing-sucking mouthparts that extend more than half of the length of their narrow body. They probe into leaves, shoots, and fruit to suck plant juices. For most ornamentals and many garden plants, feeding on the leaves and shoots causes no visual damage and is of little concern. Feeding on small tomatoes can cause the fruit to abort, while feeding on medium sized fruit can result in depressions or discoloration at the feeding site as the fruit expands and ripens. Feeding on mature tomatoes can cause slight discoloration to the surface of the fruit that should be of no concern to backyard gardeners. Damage is similar to that caused by stink bugs and other plant bugs.



J. K. Clark, UC

Figure 1. Adult leaffooted bug, Leptoglossus clypealis.



D.R. Haviland, UCCE, Kern Co.

Figure 2. Eggs of leaffooted bugs, Leptoglossus *sp. on a pistachio.*

K. Windbiel-Rojas, UC

Figure 3. Leaffooted bug nymphs on Hesperaloe parviflora.

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Management

During most years, leaffooted bug populations are low enough that damage to gardens is tolerable and damage to landscape plants is negligible. When outbreaks occur, a combination of methods will likely be needed to manage this pest, which may include removing overwintering sites or the use of weed host removal, row covers, physical removal, natural enemies, and insecticides.

Are Pesticides Effective?

Insecticides are rarely needed for leaffooted bug control because small blemishes on most fruit are tolerable in gardening situations and because landscape plants are rarely damaged. Also, leaffooted bugs are most common on edible plants near harvest, when applying pesticides to fruits to be consumed is undesirable or not allowed by the label. In addition, most insecticides available to homeowners only have temporary effects on the leaffooted bug.

However, in severe cases, insecticides can be considered as a last resort. If needed, insecticides will be most effective against small nymphs. The most effective insecticides against leaffooted bugs are broad-spectrum, pyrethroid-based insecticides, such as permethrin. However, these products are quite toxic to bees and beneficial insects. Insecticidal soap or botanicals, such as neem oil or pyrethrin, may provide some control of young nymphs only. If insecticides are used close to harvest, make sure to tell your customers to observe the days-to-harvest period stated on the insecticide label; and wash the fruit before eating.

Read more about managing the bug in the newly published Pest Note, *Leaffooted Bug*. It is available at http://www.ipm.ucdavis.edu/PMG/PESTNOTES/pn74168.html.

— Excerpted with modifications from the Pest Note, **Leaffooted Bug,** *by Chuck Ingels, UCCE, Sacramento Co., caingels@ucanr.edu; David Haviland, UCCE, Kern Co., dhaviland@ucdavis.edu*