

## Plant Bug Pests of Florida Citrus <sup>1</sup>

T. R. Fasulo and P. A. Stansly<sup>2</sup>

### Introduction

Three species of insects comprise the majority of a citrus pest complex referred to as plant bugs which occasionally produce enough damage to be of concern to Florida growers. These are the citron bug, *Leptoglossus gonagra* (Fabricius); the leaffooted bug, *Leptoglossus phyllopus* (Linnaeus); and the southern green stink bug, *Nezara viridula* (Linnaeus).

### Physical Description and Life History

#### Citron Bug

The adult citron bug is dark brown to black in color with the front margin of the thorax yellow. It is approximately 3/4 inch in length and it resembles the leaffooted bug, but does not have the yellow stripe across the wings. This bug tends to gather in colonies and is most active during the warm hours of the day. Populations build up on citron melons and many succulent weeds within the grove or in adjacent watermelon fields. Citron bugs are first found in the grove in late August and early September and, if citron melons are present, the populations may increase to the point where serious citrus fruit losses occur by October or early November.



**Figure 1.** Citron bug, Coreid- *Leptoglossus gonagra*. Photograph by Sean McCann

#### Leaffooted Bug

The adult leaffooted bug is dark brown in color and approximately 3/4 inch in length. It is easily identified by a solid pale yellow line across the wings, and by the fourth segment of the hind leg which is wide and leaf-like. The principle host plants are thistles of the genus *Cirsium*. This insect is usually found in colonies which begin feeding at one margin of the grove and slowly move across the entire grove. It is not as common as the citron bug.

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2. T. R. Fasulo, senior associate in entomology, Entomology and Nematology Department, and P. A. Stansly, professor, Southwest Florida Research and Education Center-Immokalee, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, 32611-0640.

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**Figure 2.** Adult Leaffooted bug, *Leptoglossus phyllopus* (Linnaeus). Photograph by: John Capinera, University of Florida



**Figure 3.** Nymph of the leaffooted bug, *Leptoglossus phyllopus* (Linnaeus). Photograph by: Lyle J. Buss, University of Florida



**Figure 4.** Type of damage to citrus fruit that can be caused by the leaffooted bug, *Leptoglossus phyllopus* (Linnaeus). Photograph by: University of Florida

### Southern Green Stink Bug

The southern green stink bug is bright green and broadly oval in outline. The adult female is approximately 1/2 inch in length, while the adult male is smaller. While there are four to five generations a year in Florida, this insect is mostly abundant between October through December, and March through April. Populations breed on cowpea,

beggarweed and other legumes, where the eggs are laid in clusters. This insect is most destructive to tangerines. Other species of stink bugs also attack citrus fruit, but are not usually found at high population levels.



**Figure 5.** Southern green stink bug, *Nezara viridula* (Linnaeus), with attached parasite egg. Photograph by: John Capinera, University of Florida



**Figure 6.** 5th instar, Southern Green Stink Bug, *Nezara viridula* (Linnaeus). Photograph by: Jason M. Squitier, University of Florida

### Damage

Plant bugs seldom develop in sufficient numbers to be a problem, but when they do, a major portion of the crop may be lost within a matter of weeks. An infestation is usually severe in a grove or a portion of a grove, and is seldom found over a larger area. At least one species infests individual trees while adjacent trees have few, if any, bugs. These bugs possess piercing-sucking mouth parts which puncture the fruit rind and suck the juices from underlying juice vesicles. This often causes premature color break and fruit drop as well as providing access for various fungal diseases and insects. The damage is most common on satsumas, tangerines, and early and

midseason oranges. It is seldom seen on grapefruit and 'Valencias' due to their thicker rind.

## Control Recommendations

The best protection against plant bugs is proper management of the host plants. Plant bugs move to mature or nearly mature fruit after building up on host plants within the grove or in adjacent fields. Host plants include thistles, leguminous cover crops such as cowpeas, beggarweed, and other *Crotalaria* species, as well as the citron melons commonly found in citrus groves. The cover crop should be cropped before it begins to dry out or harden, certainly before the end of September, as a drying cover crop causes the plant bugs to begin to move into the citrus trees. Chopping at this time destroys many of the young bugs of the current generation, as well as removing the cover crop before the development of the adult winged stage. Citron melons should be removed from the grove and any new vines appearing in subsequent years should be pulled. Eventually this host plant will be eliminated from the grove.

Consult the latest copy of the "Florida Citrus Pest Management Guide" for recommended insecticides.

## Featured Creatures

Detailed information on the leaffooted and southern green stink bugs is available on the University of Florida's Featured Creatures WWW site at <http://entomology.ifas.ufl.edu/creatures/>

Also included on this site are numerous color photographs and direct links to Florida's Insect Management Guide.