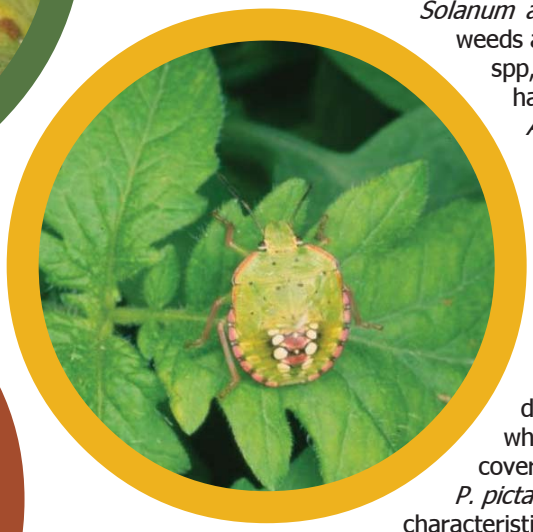
# Stink bugs & Leaffooted bugs:

**Southern Green Stink Bug** – *Nezara viridula* **Brown Stink Bug** – *Euschistus servus*
**Leaffooted Bugs** – *Leptoglossus phyllopus; Phthia picta*

**Biology & Lifecycle:** Female stink bugs lay barrel-shaped eggs in clusters of 20 or more on the undersides of leaves. Eggs of leaffooted bugs are metallic and ovate, or sometimes flattened laterally, and are laid in rows on stems or in clusters along veins under leaves **(Figure 6)**. Nymphs aggregate upon hatching but soon disperse throughout the plant. There are usually five nymphal stages and the egg to adult period lasts about 30 days.

**Environmental Factors:** Stink bugs and leaffooted bugs are present year round, but are usually more abundant April-June. The insects over summer on weeds such as American black nightshade, *Solanum americanum* and on leguminous weeds and cover crops such as *Sesbania* spp, beggarweed (*Desmodium* spp.), hairy indigo (*Indigofera hirsuta*) and *Aeschynomene* spp.



**Adult:** Adult stink bugs are shield-shaped **(Figure 1)** and about ½ inch in length. Leaffooted adults are ¾ inch in length with parallel sides. Stink bugs are usually pale green or light brown, while leaffooted bugs are usually darker brown. *L. phyllopus* has a white band running across the wing covers and has the hind tibia flattened. *P. picta* **(Figure 4)** has neither of these characteristics.

**Nymph:** Stink bug nymphs are similar in shape to adults but are more rounded and may be brightly colored in black, green, orange and white **(Figure 2)**. Leaffooted bug nymphs are also similar in shape to adults, but are colored bright orange.

**Host range:** Stink bugs and leaffooted bugs are polyphagous and attack plants in many plant families. Vegetables commonly attacked include bean, cucumber, pea, pepper, squash and tomato. The southern green stink bug shows a preference for legumes and crucifers, while the leaffooted bug reportedly prefers thistles.

**Damage:** Both adults and nymphs of stink bugs and leaffooted bugs have piercing-sucking mouthparts and feed on leaf, stem and blossom tissue; however, fruit feeding causes the most damage. Stink bug feeding on tomato and pepper fruit appears as pinpricks surrounded by subsurface white, corky tissue that turns yellow upon ripening. Leaffooted bugs usually feed more deeply, resulting in misshapen and discolored fruit.

**Figure 1.** Adult Southern Green Stink Bug, *Nezara viridula*. Photograph by: David Schuster.

**Figure 2.** Southern Green Stink Bug nymph. Photograph by: David Schuster.

**Figure 3.** Stinkbug feeding damage. Photograph by: David Schuster.

**Actual Size:**

Adult Stink bug
About ½ inch

Adult Leaffooted bug
About ¾ inch

**Monitoring:**

**Scouting:** Plants are not sampled prior to flowering. Post-bloom, whole plants are inspected for nymphs and adults. Gently shaking plants can cause adults to fly, making them easier to detect. After fruit set, 10 fruit per six plants are inspected for damage.

**Action Thresholds:** 1 nymph or adult per plant

*Prepared by: Dr. David Schuster*

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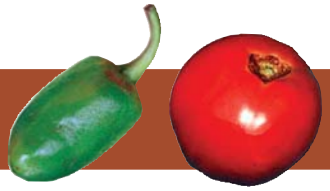

## CULTURAL CONTROLS:

**Field Manipulations:** Weeds and senescent crops can be reservoirs of migrating adults. Tomato and pepper crops should not be planted near or adjacent to fields with legume cover crops or fields with weeds like nightshade, beggarweed or thistles.

Legume or crucifers may be used as trap crops, if the subsequent bug populations are managed.

## CHEMICAL CONTROLS:

- Insecticides should be applied when the action threshold is reached.
- Insecticides used most often to control bugs include the pyrethroid insecticides (many products, 3) and endosulfan (several products, 2A).

## RESISTANCE MANAGEMENT:

- No insecticide resistance in stink bugs or leaffooted bugs has been reported in Florida.

## NATURAL ENEMIES:

- Parasitic wasps attack eggs and parasitic flies attack nymphs and adults.
- Generalist predators include fire ants (*Solenopsis invicta)*, grasshoppers, big-eyed bugs (*Geocoris spp.*), damsel bugs (*Nabis spp.*) and spiders.
- Timed insecticide applications can enhance biological control.

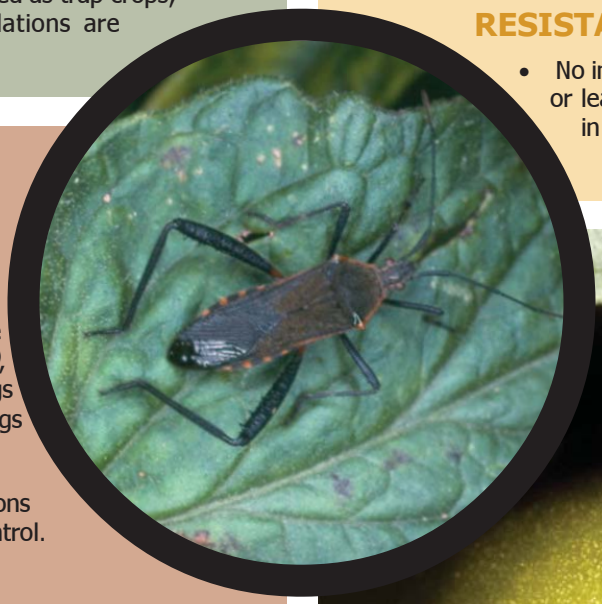

**Figure 4.** Adult Leaffooted bug, *Phthia picta*. Photograph by: Lyle Buss.
**Figure 5.** Leaffooted bug, *Leptoglossus phyllopus*, early stage nymph. Photograph by: David Schuster.
**Figure 6.** Top: Eggs of southern green stink bug, *Nezara viridula*. Photograph by: James Castner. Bottom: Leaffooted bug eggs. Photograph by: David Schuster.

## References:


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