

# TIMELY INFORMATION

## Agriculture & Natural Resources

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### REPORT ON STINK BUGS AND LEAFFOOTED BUGS ON VEGETABLES

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The year 2010 may well be called the year of the sucking insect pests because vegetable growers experienced an increase in the activity of stink bugs, leaffooted bugs and squash bugs. While stink bugs are quite common in commercial and backyard vegetable production systems, leaffooted bugs were seen on vegetables planted close to orchards. Both nymphs and adults of these sucking pests can overwhelm the crop causing substantial yield losses. Sucking insects feeding on flowers and green fruits may cause premature flower and fruit drops (eggplant field in picture below had many dropped flowers and fruits). Produce may be off-flavored if a late-season stink bug attack occurs. There were numerous reports of stink bug outbreaks throughout Alabama this year causing growers to realize that synthetic



insecticides alone are not enough to manage the infestations. Growers in high risk areas may not be able to extend their production season too long with staggered plantings without risking a heavy stink bug pressures. High heat experienced in 2010 may have also affected insecticide persistence and the dry weather caused spider mite issues as well.

**Management:** First step to stink bug management is correct identification. Do not kill the predatory stink bugs – seek help from a Regional Extension Agent to correctly identify the good from the bad insects. Once confirmed, vegetable producers should refer to the Southeast Vegetable Crop Handbook to locate insecticides for stink bugs. One of the newest

insecticidal chemistries on the market is dinotefuran which has good systemic action against sucking pests. Other effective chemistries include thiamethoxam (systemic insecticide), bifenthrin, fenpropathrin, zeta cypermethrin, etc. Before using any of the insecticides, make sure you have read the product label especially note the application rates, pre-harvest and reentry intervals. Growers also need to follow well-planned crop rotations, plant vigorous hybrids and harvest timely, use trap cropping (e.g., beans, okra, sunflower, sweet sorghum, etc.), and adopt clean cultivation practices. In the following pages, Table 1 provides a pictorial guide to identify nymphal stages of the plant-feeding stink bugs that are often harder to identify than adult bugs. Table 2 describes three species of leaffooted bugs seen in eggplant and tomato fields in 2010. Table 3 provides a pictorial guide to some common predatory stink bugs. In general, predatory stink bugs have a short robust beak whereas plant-feeding bugs have long thin beak under the head (i.e., beak may reach beyond the legs).

Table 1. Some plant-feeding (pest) stink bugs in Alabama.

	Nymph	Adult	Remarks
Brown stink bug, <i>Euschistus servus</i>	 <p>Source: UFL IFAS</p>		Common statewide, pheromone lure for trapping adults is currently under test in AL.
Green stink bug, <i>Acrosternum hilare</i>	 <p>Source: Iowa State U</p>	 <p>Source: Iowa State U</p>	Has more northerly presence in continental United States, unlike the southern green stink bug (see below).
Redbanded stink bug, <i>Piezodorus guildinii</i>	 <p>Source: BugGuide.net</p>	 <p>Source: U of Arkansas</p>	Could be an emerging pest issue in soybean. Call Dr. Tim Reed for more info. Also, read this story: <a href="http://extension.missouri.edu/news/DisplayStory.aspx?N=552">http://extension.missouri.edu/news/DisplayStory.aspx?N=552</a>
Southern green stink bug, <i>Nezara viridula</i>	 <p>Source: Univ. of Arkansas</p>	 <p>Source: Texas A&amp;M U</p>	More southern distribution, very prevalent in AL. Nymphs of southern green stink bug look different from the green stink bug.

Table 2. Three species of leaffooted bugs found feeding on vegetables in southwest Alabama, summer 2010. These infestations may be common near orchards.

	Nymph	Adult	Remarks
<i>Leptoglossus phyllopus</i>			All leaffooted bugs have hindlegs with expanded leaf-like parts. <i>L. phyllopus</i> was observed breeding on eggplants in southwest AL. This species has a yellow bar across the wing (arrow). 
<i>Leptoglossus zonatus</i>			<i>L. zonatus</i> has a pair of yellow spots behind the eyes, besides the bar on wings. Individuals of this species were found living among a larger colony of <i>L. phyllopus</i> . Shown below is a mating pair of <i>L. zonatus</i> . 
<i>Leptoglossus gonagra</i>	Not available.		This species has antennal segments with alternating black and orange segments. This species has a yellow line on pronotum (arrow). A few individuals were found on eggplants and tomatoes in southwest AL.

Table 3. Predatory stink bugs (beneficial insects) common in vegetable gardens.

	Nymph	Adult	Remarks
Predatory stink bug, <i>Euthyrhynchus floridanus</i>	 Source: UFL	 Source: UFL	Feeds on plant hoppers, other stink bug nymphs, small caterpillars. Commonly found in orchards, ornamentals, and vegetables. May be more prevalent on southern counties of AL. <b>Look for short stout beak or proboscis on predatory stink bugs.</b>
Predatory stink bug, <i>Stiretrus ancharago</i>	Not available	 Source: BugGuide.net	Appears to be more prevalent in field crops and feeds on many caterpillar and aphid species. Look for short stout beak or proboscis on predatory stink bugs. Plant feeding stink bugs have proboscis that is nearly as long as their body.
Two-spotted stink bug, <i>Perillus bioculatus</i>	 Source: BugGuide.net	 Source: BugGuide.net	Could be more northern species. Feeds voraciously on Colorado potato beetle larvae. <b>Notice the bright color of the predatory stink bugs compared to monochromatic coloration of most plant-feeding stink bugs in the adult stage.</b>
Spined soldier bug, <i>Podisus maculiventris</i>	 Source: Texas A&M	 Source: U of Kentucky	Notice the short stout beak (proboscis) of predatory bug nymph (arrow). Also, the spine on shoulder of predatory stink bug is more prominent than the brown stink bug which is a plant-feeder.

For further question about stink bug identification and management techniques, please contact the nearest Regional Extension Agent or call 'Dr. A' at 251-331-8416. You can contact [bugdoctor@auburn.edu](mailto:bugdoctor@auburn.edu) to subscribe to the IPM COMMUNICATOR newsletter which is emailed weekly to all crop producers during summer months (Web archive: [www.aces.edu/go/128](http://www.aces.edu/go/128)).