



The University of Georgia
Cooperative Extension
College of Agricultural and Environmental Sciences

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COTTON PEST MANAGEMENT NEWSLETTER #4

COTTON SITUATION: The weekly Georgia Crop Progress & Condition Report for the week ending July 15th listed the crop as 91 percent squaring and 59 percent setting bolls which are ahead of the 5-year averages of 76 and 35 percent. Crop conditions were rated 38 percent fair, 48 percent good, and 10 percent excellent.

INSECT SITUATION: Stink bugs and corn earworms are the two primary pests of cotton at this time. We have also received reports of spider mites in some areas and the presence of whiteflies in some localized areas. Scouts need to be walking fields, being observant for problems, and making counts so we can make good insect management decisions.

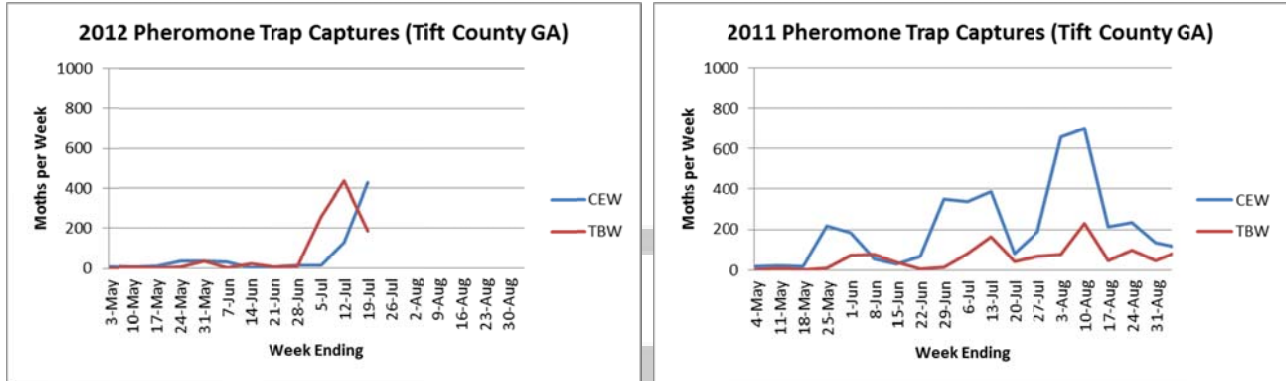
Corn Earworm (CEW): Bt cottons provide good control of CEW but are NOT immune to damage; supplemental foliar insecticides are sometimes needed for control of CEW in Bt cottons. Scouting and management of CEW is a must. Small larvae infesting blooms are more likely to survive in Bt cotton compared with larvae infesting terminals or squares. **If** small CEW larvae survive and develop in a bloom of Bt cotton they will likely feed on the developing boll under that bloom or stuck bloom tag. Larvae which reach ¼ inch in length on a Bt cotton plant often continue to develop and may damage additional bolls. CEW should be controlled in Bt cotton when 8 larvae ¼ inch in length or greater are found per 100 plants.



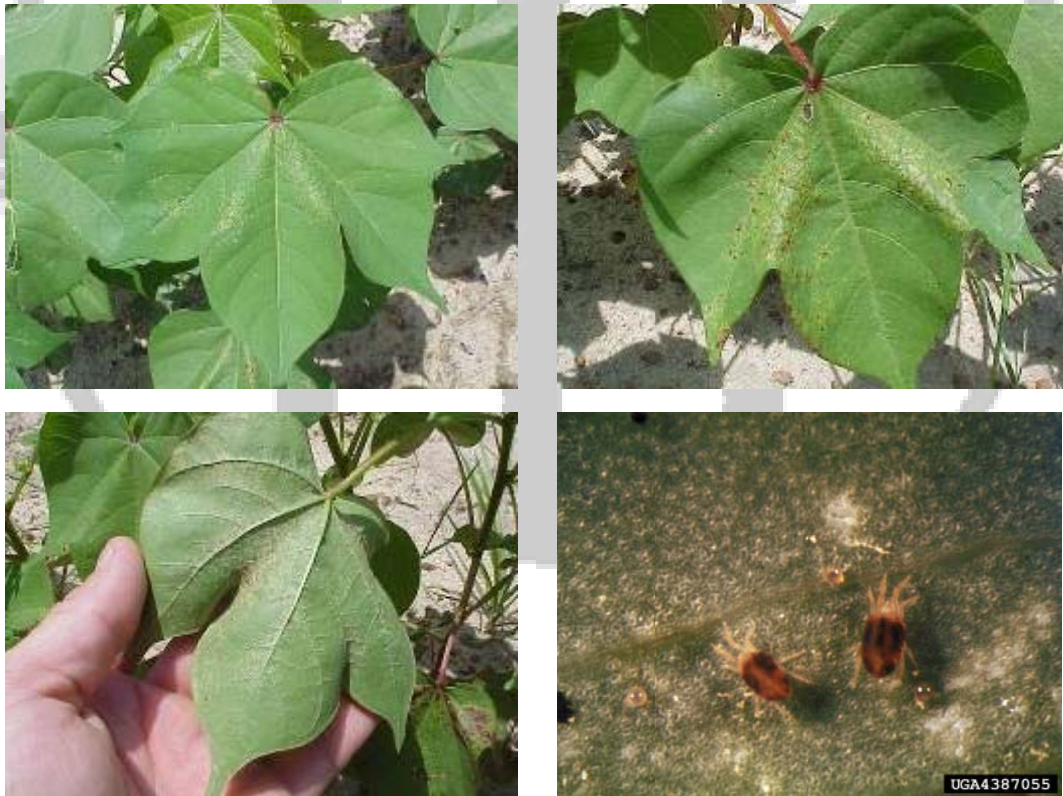
One day old CEW larvae in white bloom (left), large CEW larvae found in a pink bloom and associated damaged boll (center), CEW larvae under dried bloom tag (rights).

The charts below illustrate pheromone trap captures on the UGA Tifton Campus. These data are an indication of moth activity in this localized area and may not be representative of the species complex throughout the state. However, you can see that tobacco budworm numbers are decreasing whereas corn earworm numbers are on the increase at this location. Both tobacco budworm and corn earworm complete a generation in 30 days. This is illustrated by the three

distinct peaks in pheromone trap captures for both species in the 2011 data.



Spider Mites: Spider mites are present in some fields. Monitor these populations closely and avoid unneeded insecticide applications to conserve natural controls. Spider mites infest the undersides of leaves and are very small; a hand lens will be needed to confirm the presence of mites on the underside of damaged leaves. Early damage symptoms include discoloration, bronzing, or reddening along the main leaf veins or folds of leaves.

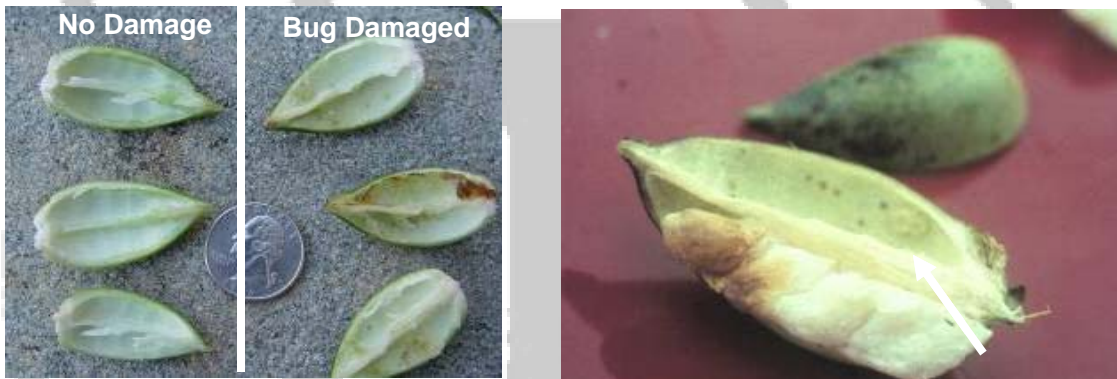


Top left: early damage symptoms (bronzing discoloration on leaf folds) from spider mites.
 Top right: older and more severe spider mite damage (reddening).
 Bottom left: underside of leaf in top right photo, note damage in folds of leaf and near leaf veins.
 Bottom right: magnified view of spider mites and eggs (photo by Mississippi State University Archives, ipmimages.org)

Stink Bug Management in Georgia Cotton



Stink Bug Biology: The southern green stink bug (left) and the brown stink bug (right) are the most common stink bugs infesting Georgia cotton. Adults and nymphs are capable of damaging developing bolls. Stink bugs prefer to feed on medium sized bolls but may damage bolls up to 25 days of age (bolls of this age are fully sized). Stink bugs feed with their piercing sucking mouthparts on developing seed. Physical damage to the seed will impact lint development. Additionally the introduction of boll rot pathogens during feeding or through feeding sites may also cause individual locks or entire bolls to fail to fluff or rot (center). Excessive stink bug damage has a detrimental effect on fiber quality. Stink bugs feed on many cultivated and wild host plants and adults migrate to cotton throughout the year. Heavy infestations often occur on field margins near source plants (i.e. peanuts).



Scouting (Internal Boll Damage): Randomly select medium sized bolls approximately the diameter of a quarter. Bolls of this size can be easily burst between your forefinger and thumb. Bolls are considered damaged if callous growths or warts are observed on the inner surface of the boll wall and/or stained lint is observed. During early bloom when bolls the diameter of a quarter are not present, the largest bolls available should be sampled. **Use a 10-15% boll injury threshold during weeks 3-5 of bloom (numerous susceptible bolls present), 20% during weeks 2 and 6, and 30%+ during weeks 7(+ of bloom (fewer susceptible bolls present).** Be observant for stink bugs in the field to determine which specie(s) is causing the damage.

Warts form within 48 hrs of feeding.



- Control:**
- > Pyrethroids provide good control of southern green stink bugs but only fair control of the brown stink bug species (higher rates of pyrethroids improve efficacy on brown species).
 - > Organophosphates such as Bidrin and methyl parathion provide good control of both green and brown stink bug species.
 - > Pyrethroids provide good control of corn earworm, organophosphates such as Bidrin and methyl parathion provide poor control of corn earworm.
 - > A tank-mix of a pyrethroid and an organophosphate is a good choice when brown stink bugs and corn earworms are both infesting fields.

PEST PATROL HOTLINE: Check the Pest Patrol Hotline (**1-877-285-8525**) for updates on current insect conditions. Select #1 for updates from the Southern Region, then #3 for the Southeast, and then #4 to hear the Georgia update. More information, including sign up for text message alerts when new updates are posted, can be found at www.SyngentaPestPatrol.com. The Cotton Pest Management Newsletter and additional cotton production information is also posted on the UGA Cotton Homepage at: <http://www.ugacotton.com>

Sincerely,

Phillip Roberts
Extension Entomologist

Putting knowledge to work

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES, COLLEGE OF FAMILY AND CONSUMER SCIENCES, WARNELL SCHOOL OF FOREST RESOURCES, COLLEGE OF VETERINARY SCIENCES

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