

July 24, 2003

***COTTON PEST MANAGEMENT NEWSLETTER #8***

**COTTON SITUATION:** The Georgia Weekly Weather and Crops Report for the week ending July 20<sup>th</sup> listed the crop as 92 percent squaring and 62 percent setting bolls. Crop conditions changed very little with 4 rated percent poor, 20 percent fair, 57 percent good, and 20 percent excellent.

**INSECT SITUATION:** Corn earworm and tobacco budworm infestations remain sporadic. Corn earworm has been much more common than tobacco budworm. A few Bt cotton fields have required supplemental insecticides for corn earworm (be sure to monitor bloom tagged bolls). Stink bugs are still present in some fields. The bulk of infestations that are being reported are southern green and pyrethroids will provide good control. A few fall and beet armyworms have been reported. Low populations of silverleaf whitefly were observed in Tift county. In fields that have not been treated with a broad spectrum insecticide, beneficial counts are high.

**Internal Boll Injury and Scouting for “Bugs”:** During the past week we have received a few questions concerning what size boll to pull when monitoring internal boll injury. Additionally scouts are questioning if they are observing old damage. Our 20% threshold is based on sampling medium sized bolls (the diameter of a quarter). Scouts need to calibrate themselves so they are not sampling bolls which are too large, or they will observe “old” damage. The warts or callous growths on the inner surface of the boll wall will form within 48 hrs. of feeding by a bug. Stained lint may not be visible for several days, if at all. Following a bug insecticide application, we typically see the percent boll damage decrease 7 days after treatment. If your damage counts do not decrease, potentially you are sampling bolls which are too large and are observing old damage. Another possibility is that stink bugs, plant bugs, and other boll feeding bugs have reinfested the field.

**Corn Earworm or Tobacco Budworm?:** Although mixed populations have been observed in some fields, corn earworm (CEW) has been much more common in fields compared with tobacco budworm (TBW). Some growers have opted to use pyrethroids to control bollworms on non-Bt cotton. Pyrethroids should provide excellent control of CEW, but control of TBW is erratic due to pyrethroid resistance. In fields where surviving larvae are observed, correctly identifying the escaped larvae would be beneficial. To differentiate CEW and TBW, larvae should be examined with a good hand lens or under a dissecting microscope. Remove the mandibles (“jaw”) and examine the inner surface for the presence or absence of a mandibular process or retinaculum. A retinaculum or extra tooth is present on TBW larvae and absent on CEW larvae. See the following website for more detailed images: <http://www.gaipm.org/cotton/larva.html>.



Closeup of tobacco budworm mandible (left) and corn earworm mandible (right). Notice the extra “tooth” or retinaculum on the tobacco budworm mandible. The retinaculum is not present on the mandibles of corn earworm. See the following website for more information:

<http://www.gaipm.org/cotton/larvaid.html>

**Threecornered Alfalfa Hopper:** Threecornered alfalfa hoppers (TCAH) are recognized as pests of soybeans and peanuts. This past week, Jeremy Kichler reported significant stand loss in a few late planted fields strip tilled behind wheat in Webster county due to TCAH feeding. Nymphs and adults may feed by random punctures, but often larger nymphs and adults girdle plant stems and petioles by a series of stylet punctures circumscribing the stem or petiole. Nymphs and adults are often found feeding near the girdles. Main stem girdling may result in plant mortality or plants tipping over at the “girdle”. Nymphs have 12 pairs of prominent projections or spines along the top of the body. Smaller nymphs range in color from nearly transparent to light green. Larger nymphs are generally green but may occasionally be brown. Adults are usually green but may also occasionally be brownish in color.



Threecornered alfalfa hopper nymph feeding near girdle on damaged cotton seedling (left and center). Threecornered alfalfa hopper adult (right). Photos by Jeremy Kichler, Webster County and Clemson University - USDA Cooperative Extension Slide Series, [www.ipmimages.org](http://www.ipmimages.org).

**Proxys Punctulatus (“Black Stink Bugs”):** Scouts have reported seeing a black stink bug with a white spot in fields in southernmost Georgia. Often these black stink bugs are found in fields infested with tropical spiderwort. We have observed high numbers of this black stink bug aggregated on tropical spiderwort. The black stink bug is in the genus *Proxys*. This species will feed on developing cotton bolls but does not appear to cause damage as extensive as the southern green stink bug (see Duffie et al., Susceptibility of Cotton to the Black Stink Bug, *Proxys Punctulatus* in Cotton Research - Extension Report 2001 pp261-262). Scouts should be aware of the presence of *Proxys* but should base treatment decisions on internal boll injury.



**INSECT UPDATES:** Check the **Cotton Insect Hotline** (1/800-851-2847) for updates on current insect conditions. The Cotton Pest Management Newsletter is also posted on the Internet at:  
<http://www.griffin.peachnet.edu/caes/cotton/>

Sincerely,

Phillip Roberts  
Extension Entomologist