

Entomology 03-PMR (1-6)

July 10, 2003

COTTON PEST MANAGEMENT NEWSLETTER #6

COTTON SITUATION: The Georgia Weekly Weather and Crops Report for the week ending July 6th listed the crop as 79 percent squaring and 28 percent setting bolls. Crop conditions changed very little with 4 percent rated poor, 20 percent fair, 56 percent good, and 20 percent excellent.

INSECT SITUATION: Widespread infestations of tobacco budworm have not occurred to date. Light to moderate infestations have been sporadic. Scouts are reporting some corn earworm moth activity. Aphid populations have crashed in most fields we have observed this week. Stink bugs and some plant bugs can be observed in most fields and threshold levels of boll injury are being reported in some early planted fields. Various armyworms, including fall armyworm, have been observed in low numbers.

Tobacco Budworm and Corn Earworm: July 4th has come and gone and typically, this is when we expect significant infestations of tobacco budworm (TBW) in central and southwest Georgia. To date widespread infestations of TBW have not been reported. However, this can change in a matter of days so stay vigilant in your scouting. Bt cotton should provide excellent control of TBW. On non-Bt cotton, a non-pyrethroid insecticide such as Tracer, Steward, or Denim (recently labeled) should be used for control of TBW. Scouts have reported increased CEW moth activity. Pyrethroids will provide very good control of CEW. Scouts should be reminded to monitor blooms and bloom tagged bolls for CEW eggs and larvae. Bt cotton will often provide good control of CEW, but supplemental treatment may be needed in some fields. It is recommended that Bt cotton be treated for CEW if 8 larvae 1/4 inch or greater in length are found per 100 plants. A pyrethroid would be the treatment of choice.

Be observant for moths in the field. Moth flushing will give us an idea of which species are infesting the field. When mixed populations are observed, the infestation should be treated as a TBW infestation, especially if numbers are high.

Denim Receives Federal Label: Denim 0.16EC is a selective non-pyrethroid insecticide which recently received a federal label. Once it receives the state label, it will be recommended for control of caterpillar pests for which Tracer and Steward are currently recommended. Although Denim insecticide has some contact activity, to be most effective, larvae should ingest it. Shortly after exposure, affected larvae are paralyzed, stop feeding, and subsequently die after 2-4 days. Target Denim insecticide applications at small larvae (less than 1/4 inch in length). Thorough coverage is essential for optimum performance. The use of a penetrating type spray adjuvant at the manufacturer's suggested rate is recommended. However, do not use sticker/binder type adjuvants because they may reduce translaminar movement of the active ingredient into the plant. Use rates are 6-8 ozs/acre for beet armyworm and 8-12 ozs/acre for tobacco budworm, corn earworm, loopers, fall armyworm, and

spider mites. Denim also has some spider mite activity and is listed for suppression on the label. See the Denim label for more information.

Aphids: Aphid populations have crashed in most fields. Where aphids continue to linger, populations will likely crash in a matter of days as scouts observe fuzzy grayish brown aphid cadavers which are indicative of the naturally occurring fungus.

Stink Bugs: We continue to receive calls concerning stink bugs. To date, brown stink bugs have been the most common species and some fields have already been treated. We strongly encourage scouts to monitor developing bolls for internal injury. Scouts should randomly pull bolls about the diameter of a quarter (can be easily squashed between your thumb and forefinger) and examine the inner surface of the boll wall for symptoms of feeding injury. Callous growths or warts and/or stained lint would be considered injured. Treatment is recommended when 20 percent of bolls samples display internal signs of feeding and stink bugs are observed. Remember that other “bugs” such as tarnished plant bugs and leaf-footed bugs may also cause similar type injury in developing bolls. It is important that scouts calibrate themselves to sample bolls of the correct size. If larger bolls are sampled, we will continue to observe “old” damage even after an insecticide treatment. Treatment is also recommended if stink bugs number 1 per 6 row feet. Several options for control are listed in the pest control handbook including pyrethroids, Bidrin, methyl parathion, Orthene, and Vydate. The organophosphates have historically provided better control of brown stink bugs.

Stink bugs do not appear to damage pre-bloom cotton. But once cotton begins setting bolls, scouts should be observant for internal boll injury. In fields which are in early bloom (bolls not yet the diameter of a quarter), scouts should sample the largest bolls available. We have observed fairly high levels of internal boll injury on some small bolls, some of which are being shed by the plant.



Brown (upper left) and Southern Green (upper right) stink bugs feeding on developing cotton bolls. Internal boll injury (bottom) represented by warts or callous growths and/or stained lint resulting from “bug” feeding on developing bolls.

Dirty Blooms: At a recent agent training we observed numerous “dirty blooms” in a cotton field. Dirty blooms may have distorted petals, “warts” or discolored spots on the petals, and/or discolored anthers. Dirty blooms are most often associated with plant bug feeding on large squares. Plant bugs will typically feed on small squares which will be shed by the plant, but when larger squares are fed upon they may remain attached to the plant and ultimately bloom. Potentially some of these dirty blooms are the result of stink bug feeding on large squares. Treatment should be considered if 15-20 percent dirty blooms are observed.



Adult tarnished plant bug and a “dirty bloom”. Dirty blooms result from bug feeding on larger squares which are not shed by the plant.

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