

June 22, 2006

COTTON PEST MANAGEMENT NEWSLETTER #3

COTTON SITUATION: The Georgia Weekly Crop Progress and Condition Report for the week ending June 4th listed the crop as 40 percent squaring and 2 percent setting bolls. Cotton continues to develop at a rapid pace where moisture is not limiting.

INSECT SITUATION: Thrips will likely be less of a problem on late planted cotton as thrips populations appear low and seedlings are growing rapidly. However, a preventive thrips insecticide is still recommended. Cotton aphids are beginning to infest isolated areas in some fields. A few reports of plant bugs have been received. The most common insect observed in fields during recent scout schools were bigeyed bugs which are important predators of larval pests.

Plant Bugs: Tarnished plant bug is a sucking pest with needle like mouthparts which prefers to feed on small squares. Feeding on a small square typically results in a lost position. Damaged squares will turn yellowish green to brown or black and eventually drop from the plant. The actual abscission process takes several days. During bloom tarnished plant bug may also feed on larger squares which are often retained by the plant (results in dirty blooms) and small bolls (plant bug damage on bolls appears identical to stink bug damage). Plant bugs are a serious pest in the Mid-South states and a sporadic pest in Georgia. Historically only a small percentage of acres require treatment for plant bugs in Georgia. However, each year there are individual fields and/or farms which need to be treated.

Plant bug adults are very elusive and scouts should be observant for plant bug activity when monitoring fields. Treatment for plant bugs is recommended when plants are retaining less than 80% of small squares and numerous plant bugs are observed. In addition to checking small squares for retention, scouts should periodically pull plants from the ground and monitor retention of all first positions. Our goal should be to retain at least 80 percent of all first positions at first bloom.

Only a small percentage of cotton planted in Georgia is non-Bt cotton. Should plant bugs be managed differently on non-Bt cotton compared with Bt cotton? The answer is yes. Since the successful eradication of the boll weevil producers have learned to conserve and utilize beneficial insects. Conservation of beneficial insects is important in Bt cotton, but significantly more important in non-Bt cotton. We would be hesitant to treat plant bugs in non-Bt cotton unless square loss is significant, an effective plant bug treatment will significantly reduce beneficial insect counts. In the absence of natural controls, control costs for tobacco budworm on non-Bt cotton can escalate.



Tarnished plant bug adult (above) and nymph (right).
Photos by Scott Bauer, www.ipmimages.org



Small square damaged by tarnished plant bug (left) and the resulting scar where a square was once attached (right).



Large squares fed on by tarnished plant bug may be retained by the plant and the resulting flower will show injury (ie. dirty bloom). Photo by Barry Freeman, www.ipmimages.org

Aphids: Isolated aphid infestations can be observed in many fields. In time these hot spots will spread and aphids will ultimately infest the whole field. During most years aphids build to high numbers and populations eventually crash due to a naturally occurring fungus. This fungal epizootic typically occurs in late June or early July depending upon location. In most years a small percentage of fields are treated for aphids. Decision to treat an aphid infestation is a judgment call. One must first consider if the fungal epizootic is near. Is there any indication of the fungus (ie. Gray fuzzy aphid cadavers)? Once gray fuzzy aphids are observed in a field we would expect aphids to crash in about a week. Aphids add stress to plants by feeding on and removing plant juices. Heavy accumulations of honeydew, yellowing terminals, and plant stunting should be considered prior to treating aphids. Several plant bug insecticides also have activity on aphids.



Heavily infested aphid plants. The image on the bottom right is grayish fuzzy aphids which were killed by the naturally occurring fungus.

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 UGA Cotton Homepage at: <http://www.ugacotton.com>

Sincerely,

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