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

July 28, 2011

COTTON PEST MANAGEMENT NEWSLETTER #8

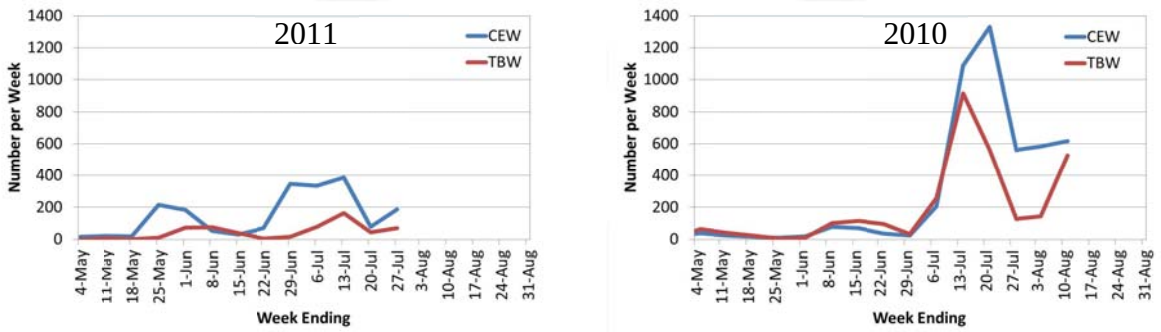
COTTON SITUATION: The Georgia Weekly Crop Progress and Condition Report for the week ending July 24th listed the crop as 80 percent squaring and 50 percent setting bolls. Crop conditions have improved during the past couple of weeks but continue to vary significantly across the state depending on the frequency and amount of rainfall events and/or irrigations.

INSECT SITUATION: Aphid populations have crashed or are crashing due to the naturally occurring fungus in many areas. Corn earworms continue to be reported at low to moderate levels. Stink bug numbers also appear to be lower than normal. However, there are fields which have exceeded threshold in various parts of the state; get out and scout and treat as needed. Silverleaf whitefies have been observed at low levels in cotton in historical whitefly areas. Spider mites continue to linger in some fields but have rarely built to damaging levels.

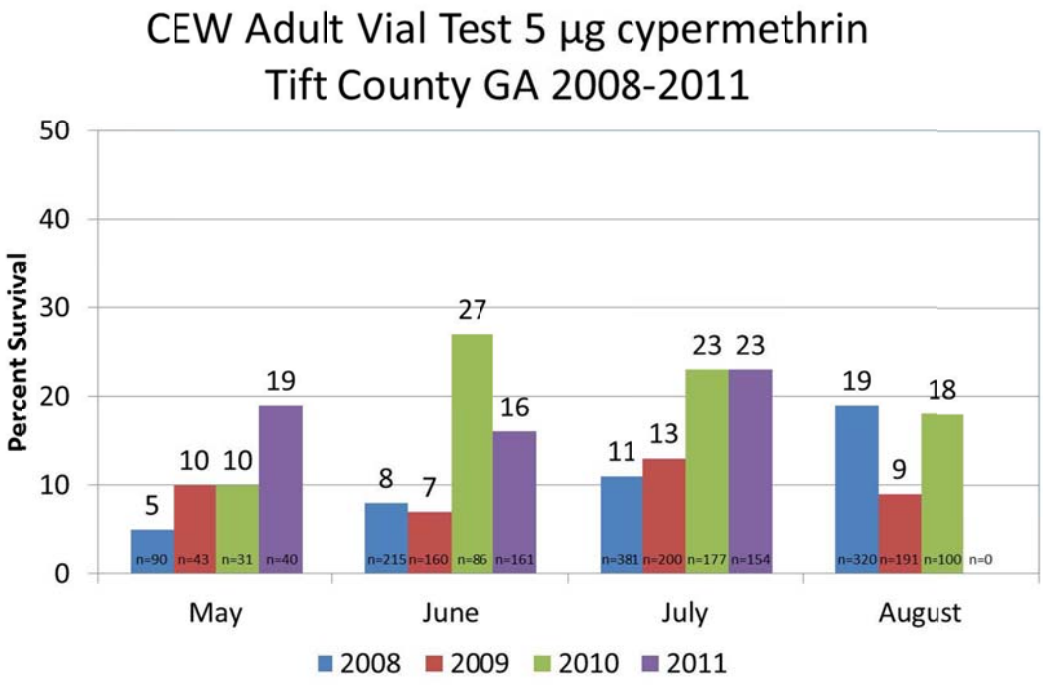
Stink Bugs: To date stink bug infestations have been sporadic; but in general populations appear to be lower than normal. We have received reports of threshold levels of damage in various areas so scouting is a must. We have mostly observed brown stink bugs in cotton, southern green numbers remain low. Use the *"Dynamic Threshold"* which is adjusted up or down based on the number of stink bug susceptible bolls to properly schedule stink bug insecticide applications. During the 3rd, 4th, and 5th week of bloom sprays should be applied when 10-15 percent boll damage is observed. During the 2nd and 6th week of bloom treat at 20 percent internal boll damage. During and after the 7th week of bloom the threshold is raised to 30 percent since fewer bolls are present which are susceptible to stink bug damage. The *"Dynamic Threshold"* assumes a normal fruiting pattern. Many dryland fields do not have a normal fruiting pattern this year and thus the specific treatment levels by week of bloom may not apply. However, the concept of slightly lowering or raising the threshold (i.e. 20 percent threshold) based on the number of susceptible bolls present still holds true.

Medium sized bolls should be monitored for stink bug damage. The inner carpel wall of undamaged bolls (left) are white and smooth whereas the inner carpel wall of damaged bolls (right) have callous growths or warts and/or staining.

Corn Earworm and Tobacco Budworm: Corn earworm infestations are localized and sporadic. Bt cottons have provided good control of light to moderate populations encountered to date. Scouts should monitor blooms, bloom tagged bolls, and bolls on nodes near the uppermost white bloom closely for developing corn earworms. Historically this is the area of the plant surviving corn earworm larvae in Bt cotton are found. If larvae reach ¼ inch in length, it is likely they will continue to develop and damage multiple fruiting sites. Below are charts of corn earworm and tobacco budworm pheromone traps located on the UGA Tifton Campus. These trap captures appear to illustrate what we are seeing in general which is lower populations. However, trap counts can be misleading and cannot replace thorough scouting of all fields.



We also continue to monitor susceptibility of corn earworm to pyrethroids using the adult vial test. Survival of corn earworm moths in pyrethroid treated vials during July is similar to last year and slightly elevated compared with 2008 and 2009. Pyrethroids are still very efficient options for control of corn earworm. High rates of pyrethroids should be used since large (escaped) corn earworms are often targeted with foliar sprays.

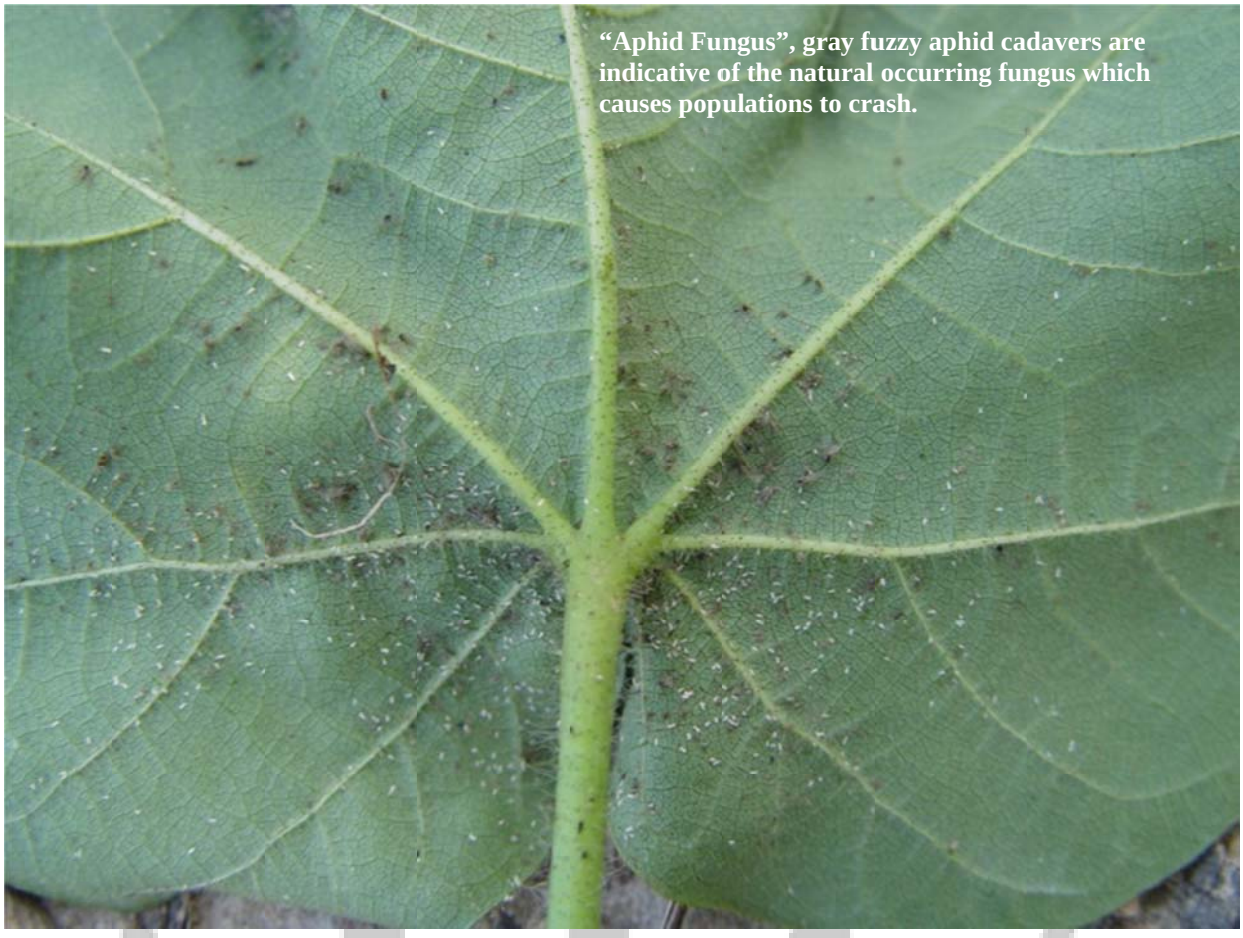


Silverleaf Whitefly: Low levels of silverleaf whitefly have been observed infesting cotton in Berrien, Colquitt, and Tift counties. The presence of whiteflies in cotton should influence treatment decisions for other pest. Unneeded sprays should be avoided in fields where whiteflies are present. Conserve beneficial insects, treat other insect pests only when thresholds are exceeded, and avoid insecticides which are prone to encourage whitefly buildup.

"Whitefly Leaf Turns": Examine the 5th expanded leaf below the terminal for whiteflies by gently turning leaves and examining the underside of the leaf for adults and immatures. The presence of whiteflies should influence decisions for other pests.

Spider Mites: Spider mites are present in some fields but are generally below damaging levels. As with whiteflies, the same principles of management apply for spider mites. Our goal is to manage cotton so that numbers do not build to damaging levels. Yellowing, stippling of leaves near the main leaf vein or folds in the leaf is indicative of spider mite infestation. A hand lens should be used to examine the underside of affected leaves to confirm the presence of spider mites.

Aphids: We have received reports of the aphid fungus from many areas. The presence of gray fuzzy aphid cadavers is indicative of the naturally occurring fungus. We normally expect aphid populations to crash within a week once the fungus is detected.



"Aphid Fungus", gray fuzzy aphid cadavers are indicative of the natural occurring fungus which causes populations to crash.

I**NSECT UPDATES:** Check the **Cotton Insect Hotline (1-800-851-2847)** for updates on current insect conditions. 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
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