



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

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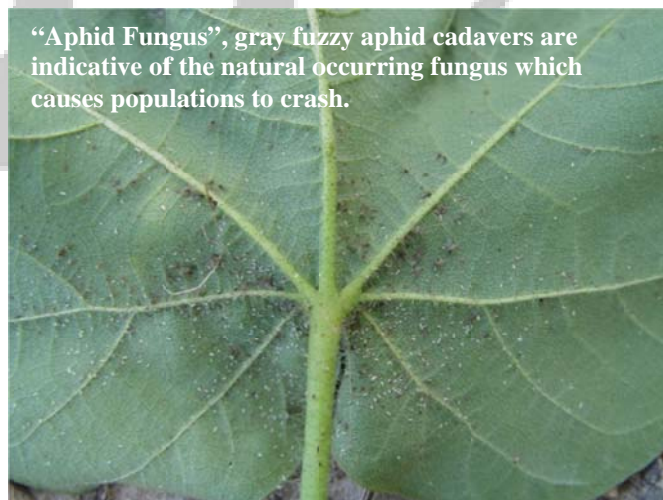
COTTON PEST MANAGEMENT NEWSLETTER #6

COTTON SITUATION: The Georgia Weekly Crop Progress and Condition Report for the week ending July 10th listed the crop as 62 percent squaring and 28 percent setting bolls. Crop conditions continue to vary significantly across the state depending on the frequency and amount of rainfall events and/or irrigations.

INSECT SITUATION: Insect pest populations remain relatively low in most areas; however aphids are building rapidly in some areas. We have observed both corn earworm and tobacco budworm moths and larval infestations in non-Bt cotton in southernmost Georgia. Plant bugs continue to be isolated and sporadic. Scouts should be monitoring for stink bugs and boll damage in blooming cotton. We have received a couple reports of spider mites.

Aphids: During the last 5-7 days aphid populations have significantly increased in some fields. Populations have been slow to build in most fields but we still expect aphids to build to high numbers in the coming days/weeks. In most years we are seeing aphids crash due to the naturally occurring fungus during early-mid July (but aphid populations have generally built to high numbers by that time). It is likely that the epizootic or crash of aphid populations is dependent upon high aphid populations. So we do not anticipate aphids to crash until we see higher aphid populations on a more widespread basis. In fields infested with aphids be sure to look for fuzzy gray aphid cadavers which are indicative of the naturally occurring fungus.

Do we need to be more aggressive controlling aphids on late emerging cotton? Historically we have not been able to consistently demonstrate a yield response when controlling aphids on cotton planted during our normal planting window. However we have observed high infestations of aphids to slow plant growth, so perhaps we should be more apt to treat aphids on late cotton if the goal is to prevent delays in maturity. However we do not want to be overly aggressive and encourage other problems such as spider mites. If you do decide to treat, be sure there is no sign of the “aphid fungus” in the field. Once we see signs of the fungus (gray fuzzy aphid cadavers) we would expect the aphid population to crash within the next week.



Spider Mites: Spider mites have been observed in several areas but populations are generally low. However the presence of spider mites in a field is an important observation to note. During recent years we have been able to consistently encourage economic infestations of spider mites by disrupting natural controls (beneficial insects) with repeated insecticide applications. In fields infested with spider mites conservation of natural enemies should be a priority. The presence of mites should influence decisions made for other pests. Be sure to use thresholds and treat only when necessary and avoid insecticides which are more likely to encourage mite outbreaks.



Leaf exhibiting spider mite injury symptoms (yellow spots/stippling) near leaf fold and main leaf veins.

Stink Bug: Scouts should be observant for stink bugs while walking fields and monitoring medium sized bolls for stink bug feeding injury. *The boll injury threshold should be adjusted up or down based on the number of susceptible bolls present. 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). *Detection of 1 stink bug per 6 row feet would also justify treatment.* Bolls approximately the diameter of a quarter should be sampled and examined for internal damage. Internal damage is defined as warts or callous growths on the inner surface of the boll and/or stained lint (see Decision Aid card below). During the first week to ten days of bloom, bolls the diameter of a quarter are not present and the largest bolls available should be evaluated. Stink bugs prefer to feed on medium sized bolls but may feed on small bolls when that is all that is available. Small bolls (less than 10 days of age) which are damaged may be aborted. When deciding to treat stink bugs with insecticide it is important that we have a general idea of stink bug species makeup. Pyrethroids

provide good control of southern green stink bugs, but only fair control of brown stink bugs. OP insecticides such as Bidrin and methyl parathion provide good control of both brown and southern green stink bugs. The Decision Aid card below is a good tool to assist with scouting procedures.

Decision aid for stink bug thresholds in Southeast cotton

Stained seed and lint

Boll wall warts

External lesions

Quarter size boll

Boll diameter should be between 0.9" and 1.1"

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Decision aid for stink bug thresholds in Southeast cotton

- 1 Pull random sample of quarter size diameter bolls, avoid field edges.
- 2 (boll sizes between 0.9" and 1.1")
- 3 1 boll / acre, no less than 25 / field.
- 3 Sort bolls into two piles: those with and those without, obvious external lesions.
- 4 Crack and inspect bolls with external lesions for internal damage (boll wall warts, stained seed or lint).
- 5 If threshold is not met for that week, (see chart) check the remaining bolls for internal damage.
- 6 Treat field only if the threshold is met for that week.

Bolls should fit through the large hole but not the small one.

Week of bloom	Threshold (% internal boll damage)
2	20%
3	10-15%
4	10-15%*
5	10-15%*
6	20%
7	30%

*Consult state guidelines for scouting intervals.

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Corn Earworm and Tobacco Budworm: Bt cottons should provide excellent control of tobacco budworm and good control of corn earworm. However supplemental treatment of corn earworm with a foliar insecticide such as a pyrethroid is sometimes needed in Bt cotton. Be sure to monitor blooms and bolls with dried bloom tags for escaped corn earworms and treat accordingly.

INSECT 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
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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