July 20, 2006

COTTON PEST MANAGEMENT NEWSLETTER #6

COTTON SITUATION: The Georgia Weekly Crop Progress and Condition Report for the week ending July 16th listed the crop as 95 percent squaring and 68 percent setting bolls. Crop conditions continued to decline due to excessive heat and lack of rainfall. Some dryland fields have been terminated. Irrigated cotton looks good where adequate water has been applied.

INSECT SITUATION: Aphids continue to linger in some areas, but the naturally occurring fungus is more widespread than during recent weeks. Corn earworm, tobacco budworm, and fall armyworm have been reported from various areas. Spider mites remain a concern in some areas and infested fields should be monitored closely. Some early-planted cotton is being treated for boll feeding bugs (brown and southern green stink bugs and plant bugs).

Corn Earworm and Fall Armyworm: Corn earworm and fall armyworm have been treated in Bt cotton is some areas during the past week in southwest Georgia. When larvae are small and only a few days of age, differentiating fall armyworm from corn earworm is difficult. As larvae develop and size (3/8-1/2 inch in length) larvae can be more easily identified. However, control of fall armyworm is best when small larvae (1/8 inch in length) are targeted with sprays.

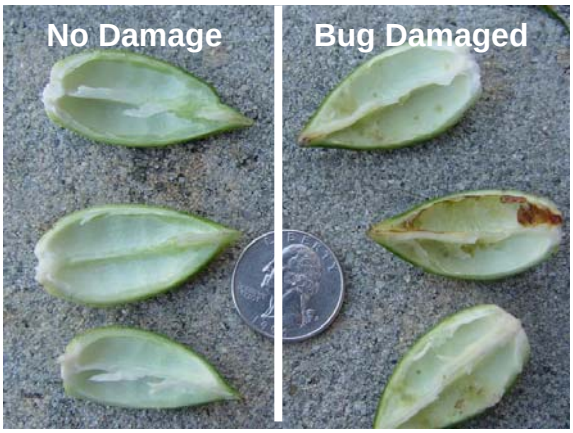
Suggestions for identifying small fall armyworm larvae include:

- Look for etching on plant tissues where larvae are found. Small fall armyworm larvae will often feed on the surface of plant tissue such as the underside of leaves or inside boll bracts.
- Head capsules on first instar fall armyworm larvae are often darker than bollworms.
- A black spot on the side of the first abdominal segment (just behind the last pair of true legs) is often visible. The spot is not as prominent as on yellow striped armyworms.
- Fall armyworm often appear smoother or less hairy than corn earworm.
- Three light parallel stripes on the back of the first segment behind the head become visible as larvae grow.
- A prominent inverted "Y" on the front of the head becomes apparent as larvae approach 1/2 inch in length.

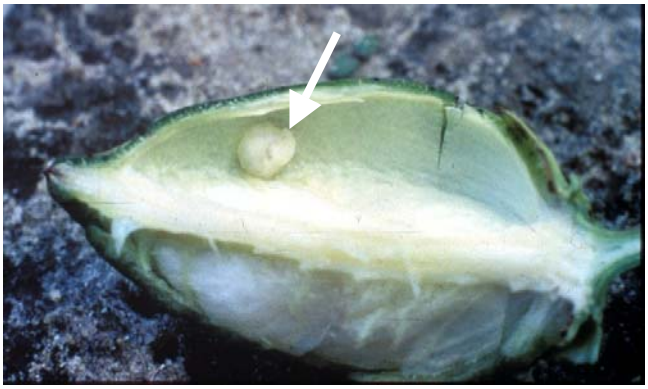
Stink Bug Management in Georgia Cotton



Stink Bug Biology: The southern green stink bug (left) and the brown stink bug (right) are the most common stink bugs infesting Georgia cotton. Adults and large nymphs are capable of damaging developing bolls. Stink bugs will damage bolls up to 25 days of age. Bolls of this age are fully sized. Stink bugs feed with their piercing sucking mouthparts on developing seed. Physical damage to the seed will impact lint development. Additionally, the introduction of boll rot pathogens during feeding or through feeding sites may also cause individual locks or entire bolls to fail to fluff or rot (center). Recent studies have indicated that excessive stink bug damage has a detrimental effect on fiber quality. Stink bugs feed on many cultivated and wild host plants and adults migrate to cotton throughout the year. Heavy infestations often occur on field margins near source plants (i.e. corn and peanuts).



Warts form within 48 hrs of feeding.



Scouting (Internal Boll Damage): Randomly select bolls approximately the diameter of a quarter (approx. 12 days of age). Bolls of this size can be easily burst between your forefinger and thumb. Bolls are considered damaged if callous growths or warts are observed on the inner surface of the boll wall and/or stained lint is observed. Treatment is suggested when 20 percent of medium sized bolls exhibit internal damage. During early bloom when bolls have not yet reached the diameter of a quarter, the largest bolls available should be sampled. Be observant for stink bugs in the field to determine which specie(s) is causing the damage. When a drop cloth is used to sample stink bugs, treatment is suggested when 1 stink bug per 6 row feet is observed.

Control: > **P**yrethroids provide very good control of southern green stink bugs but only fair Control of brown stink bug species (higher rates of pyrethroids improve efficacy on brown species.

> Organophosphates provide excellent control of both green and brown species.

> Pyrethroids provide excellent control of corn earworm.

> Organophosphates provide poor control of corn earworm.

> A tank-mix of a pyrethroid and an organophosphate is a good choice when brown Stink bugs and corn earworms are both infesting fields.

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,

Phillip Roberts
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