

July 21, 2005

COTTON PEST MANAGEMENT NEWSLETTER #8

COTTON SITUATION: The Georgia Weekly Weather and Crops Report for the week ending July 17th listed the crop as 39 percent setting bolls which is slightly behind the five year average of 58 percent.

INSECT SITUATION: To date both tobacco budworm and corn earworm populations have been light. Low numbers of fall armyworm, beet armyworm, and loopers have been reported. Heavy populations of boll feeding bugs such as stink bugs and plant bugs have been reported from some areas. Be sure scouts begin monitoring for boll-feeding bug damage once bolls begin forming.

Corn Earworm and Tobacco Budworm: Mixed populations of corn earworm and tobacco budworm are being reported in south and central Georgia. On non-Bt cotton, be sure to pay attention to moth activity in the field. If tobacco budworms are present at economic levels, a non-pyrethroid insecticide should be used.

Stink Bugs and Other Boll Feeding Bugs: Bugs (brown and southern green stink bugs, tarnished plant bugs, and clouded plant bugs) appear to be present in high numbers in many parts of the state, especially when compared to 2004. Be sure scouts are monitoring for bugs and are observant for bug activity in the field.

Stink Bug Tidbits:

The southern green stink bug and the brown stink bug are the most common stink bugs infesting Georgia cotton. Adults and large nymphs are capable of damaging developing bolls. Green stink bug, and several *Euschistus* species (brown in color) are also occasionally observed. Tarnished plant bugs, clouded plant bugs, and leaf-footed bugs may also damage developing bolls.

Stink bugs are long-lived insects. From egg to adult takes about a month. Adults may live several weeks.

Stink bugs feed with their piercing sucking mouthparts on developing seed. Stink bugs appear to prefer bolls about 10-12 days of age. Stink bugs will damage bolls up to 25 days of age. Bolls of this age are fully sized.

The best way to confirm stink bug damage is to examine the inner surface of boll walls and the lint. Warts or callous growths on the inner surface of the boll wall often appear at the feeding site. These callous growths on the inner surface of the boll wall are visible within 48 hrs of feeding.

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

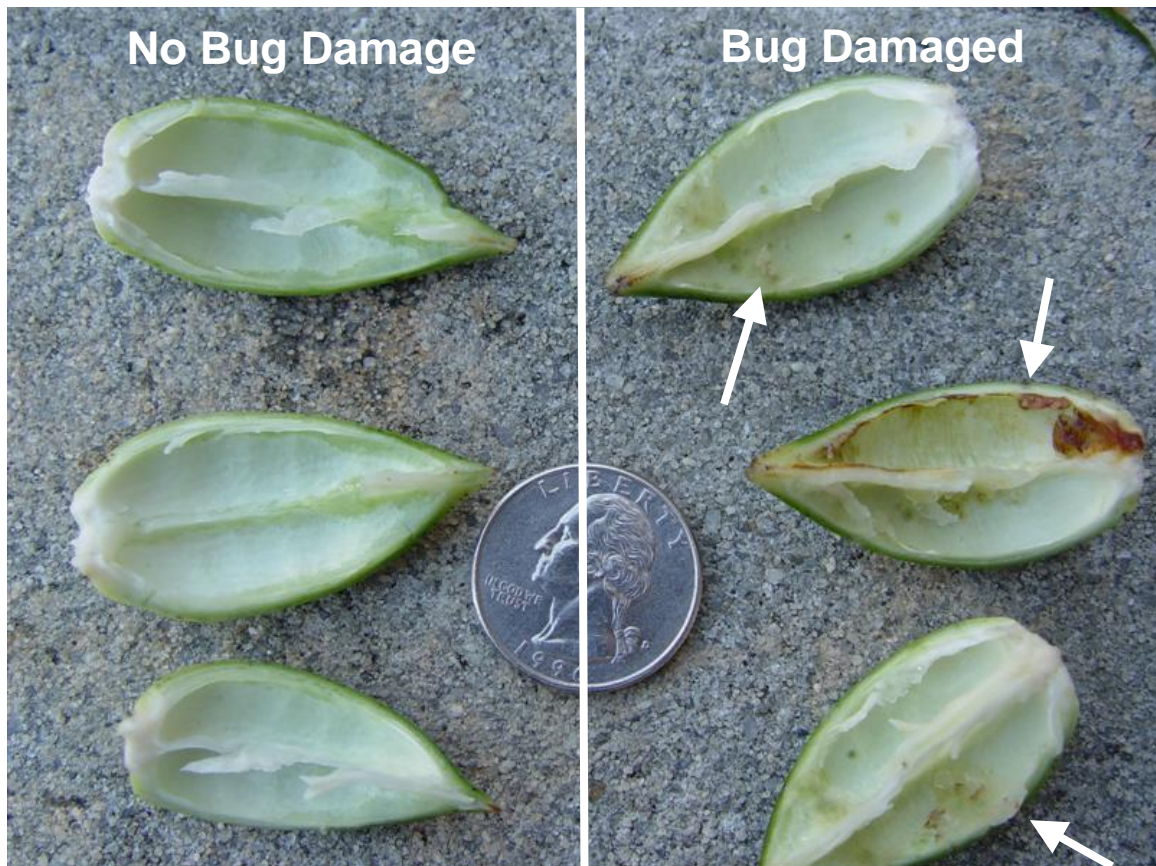
to fluff or rot.

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).

Stink bug infestations are often clumped, ie hot spots, in fields.

Stink Bug Scouting (Internal Boll Damage): Randomly select bolls approximately the diameter of a quarter (10-12 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 the diameter of a quarter are not present, 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.



The inner surface of boll walls should be smooth and white in color (left). Bolls which have been damaged by a bug will have a callous growth or wart on the inner surface of the boll wall and/or stained lint (right). Bolls approximately the diameter of a quarter should be sampled.

Stink Bug Control (Insecticide Selection):

- > Pyrethroids provide very good control of southern green stink bugs but only fair control of the 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.
- > 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,

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