



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

May 15, 2008

COTTON PEST MANAGEMENT NEWSLETTER #1

COTTON SITUATION: The Georgia Weekly Crop Progress and Condition Report for the week ending May 11th listed the crop as 32 percent planted which is similar to the 5 year average of 35 percent. Cotton continues to be planted on irrigated acreage, but dryland planting in some areas has been delayed due to lack of moisture. Sandblasting was reported from various areas resulting from high winds this past weekend.

INSECT SITUATION: Thrips numbers increased on emerged cotton and other crop plants beginning last week and numbers remain high as of today. We have received reports of grasshoppers damaging seedlings in some reduced tillage fields. We have also observed low numbers of beet armyworm on seedling cotton on the Experiment Station in Tifton.

Cotton Scout Schools: Cotton insect scouting schools are annually held at various locations in Georgia. These programs offer basic information on cotton insects and scouting procedures and will serve as a review for experienced scouts and producers and as an introduction to cotton insect monitoring for new scouts. Programs for each Cotton Scout School may be found at <http://ugacotton.com>.

Location	City	Date	Time	Contact for additional information
Tifton Campus Conference Center	Tifton GA	June 2, 2008	9:00 am -12:30pm	Debbie Rutland (229) 386-3424
Southeast Research and Education Center	Midville GA	June 24, 2008	9:00 am -12:30pm	Roosevelt McWilliams (706) 554-2119

Thrips: Historically, cotton planted during April and early May tends to have higher thrips numbers compared with late May and June planting dates. This appears to be the case this year as well. A small plot thrips insecticide trial planted during late April on the Coastal Plain Experiment Station in Tifton is heavily infested with thrips. Wheat and many other weedy plants which serve as host plants for thrips are rapidly drying down and thrips appear to be on the move looking for something green. Seedlings should be monitored for thrips and damage even if a preventive insecticide was used at planting. Supplemental foliar sprays may be needed if conditions are not conducive for plant uptake of the preventive insecticide or if unusually heavy thrips infestations occur. Seedlings are most vulnerable to thrips in terms of yield loss during early developmental stages (1-2 leaf); as seedlings develop (i.e. 4-5 leaf) they become more tolerant to thrips injury. Low seedling vigor or slow seedling growth from cool temperatures or other plant stresses magnifies the negative impact of thrips. Economic damage from seedling thrips is unlikely once seedlings attain 5 true leaves and are growing vigorously. Automatic insecticide applications at the 5- leaf stage should be avoided.

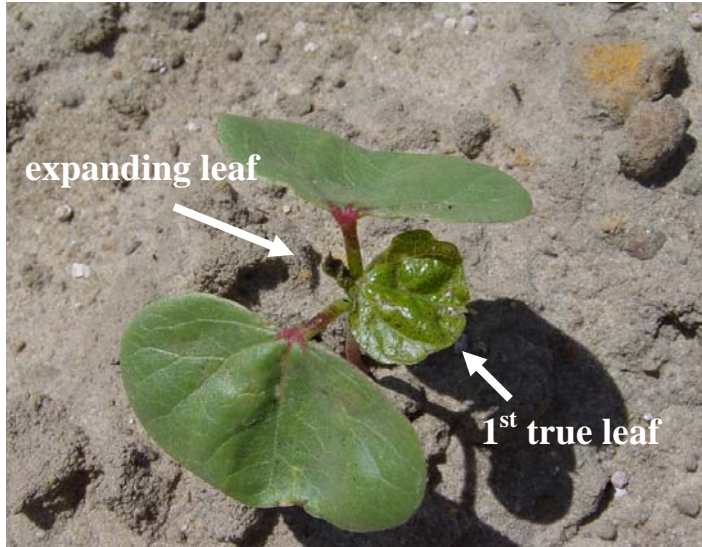
The established threshold for thrips in Georgia is 2-3 thrips per plant. To sample thrips, randomly pull seedlings and beat them against a stiff sheet of white cardboard or a white container covered with hardware cloth to dislodge the thrips. Sample multiple plants at multiple locations per field. Supplemental treatments are especially needed if immature thrips (crème colored and wingless) are observed. The presence of immature thrips infesting seedlings suggests that the preventive insecticide is failing. The use of a hand lens will aid in recognizing immature thrips.



The presence of immature or wingless thrips (cream colored) is an indication that the preventive insecticide used at planting is failing. The majority of adult thrips observed in seedling cotton are tobacco thrips which are dark brown or black in color. However some species such as western flower thrips adults are light colored.



Prior to the development of the terminal bud, thrips will feed on the underside of cotyledon leaves. The lower surface of the cotyledon leaves will appear “scratched” and have a silvery or shiny appearance as shown on the left.



When monitoring thrips injury, pay close attention to newly expanding leaves. Note that in the picture to the left the first true leaf shows moderate thrips injury. However, the newly expanding leaf is severely damaged. The damage will be more easily recognized as the leaf tries to expand.



Sand Damage: Blowing sand as a result of high winds this past weekend damaged cotton in some areas. Note in the picture below the damaged cotyledons (brown and necrotic) are always on the same side of the plant. True leaves and terminals may be damaged in some situations and the resulting injury sometimes appears similar to thrips injury. It is a good idea to confirm the presence of thrips before making a thrips insecticide treatment decision.



Grasshoppers: Grasshoppers are a troublesome pest and are typically associated with a dry winter and spring. Economic infestations are almost always observed in reduced tillage fields and tend to occur more frequently in lighter soils. Some producers have observed that the same fields are problematic during years when grasshoppers are problematic. Grasshoppers survive the winter as eggs deposited in the soil. The lack of soil disturbance in reduced tillage fields favors survival and emergence of nymphs. Grasshoppers may feed on foliage but a more serious concern is when grasshoppers feed on the main stem of cotton seedlings. Grasshopper feeding on the main stem resembles cutworm damage (be sure to look for cutworms under residue and in the soil near damaged plants); however grasshoppers often will only chew partially through the main stem. Stem feeding may kill young seedlings or weaken plant stems so that plants tip over and are not productive. In fields infested with grasshoppers emerging cotton should be monitored closely (begin monitoring fields when in the “crook” or cracking stage as grasshoppers may feed on stems prior to plants standing). Due to the droughty conditions grasshoppers are in search of anything green. Control of grasshoppers is recommended when plant damage is occurring, grasshoppers are present, and plant stands are threatened. Nymph (wingless) grasshoppers are relatively easy to control with insecticides. However control of adult (winged) grasshoppers is more difficult. High rates of labeled pyrethroids have performed fair to good on adults (control of adults or “flyers” is difficult). Dimilin, which is an insect growth regulator, provides good control of nymphal grasshoppers and has provided good residual activity in field demos, but it takes a few days to cause mortality. Dimilin will not control adult grasshoppers. Pictures below show various seedlings with grasshopper feeding injury on the main stem.



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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