



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



Georgia Cotton

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Got Stink Bugs? (Roberts) As cotton begins to bloom stink bug management should be a priority and optimal management begins with scouting. We have received several reports of early planted cotton in the third week of bloom which has exceeded treatment thresholds. I am not much on prognostication when it comes to insects, but there are many more stink bugs in the farmscape at this point in time compared with previous years. My recommendation is to hire a scout and react appropriately.

Cotton is most susceptible to yield loss from stink bugs during the 3rd, 4th, and 5th week of bloom. The 6th week of bloom can also be important. This is the time of crop development when the greatest number of susceptible bolls is present. Developing bolls are relatively safe, in terms of yield, from stink bugs once they reach 25 days of age. During early bloom there are relatively few bolls present and during late bloom many of the bolls on the plant are greater than 25 days of age.

In the recent Cotton Pest Management Newsletter (found online at ugacotton.com) we discussed the “Dynamic Threshold” where the action threshold for treating stink bugs varies by week of bloom. Rather than using a 20 percent internal damage threshold season long, we are recommending raising the threshold during the first 2 weeks of bloom, lowering the threshold during weeks 3-5 of bloom, and again raising the threshold later in the season. Research in Georgia and other southeastern states supports the Dynamic Threshold approach to stink bug management.

2009 Georgia and US Cotton and Other Crop Acreage. (Don Shurley and Amanda Smith) There are two reports issued annually by USDA that are closely watched and have impact on market prices. In March, the *Prospective Plantings* report shows survey results of what farmers say they *intend* to plant based on current and expected future costs and market conditions. Then in June, the *Acreage* report is the first survey-based estimate of what farmers *actually* planted. What is actually planted can vary (sometimes greatly) from earlier intentions based on changes in prices, costs, weather impacts and soil conditions, planting timeliness, etc.

This year, acreage actually planted varied significantly from the March estimate. In fact, the Georgia numbers in March looked questionable at the time and it was anticipated that actual planting would be different than the earlier estimate. The following table summarizes 2008 actual acres planted, March 2009 “intentions”, 2009 actual planted acres, and the % change 2009 compared to 2008.

Looking at planted acreage for major Georgia row crops, growers generally responded to input costs and market signals by decreasing peanut and small grain acreage and increasing corn, soybean, and cotton acreage. Georgia corn, soybean, and cotton acres are not only increased from last year but also higher than farmers said they intended to plant back in March. Using spring market prices, moderating/declining fertilizer prices, and based on UGA Crop Budgets and Crop Comparisons (<http://www.ces.uga.edu/Agriculture/agecon>)-- corn, soybeans, and cotton looked better than peanuts and farmers responded to these signals. Georgia’s final cotton acreage could end up being even more than the June estimate.

2008 and 2009 Acres Planted By Crop, Georgia and US

	Georgia				US ¹			
	2008 Actual	2009 Intentions ²	2009 Actual ³	% Change	2008 Actual	2009 Intentions ²	2009 Actual ³	% Change
Corn	370,000	350,000	450,000	+21.6%	85.98	84.99	87.035	+1.2%
Cotton	940,000	940,000	980,000	+4.3%	9.47	8.81	9.05	-4.4%
Sorghum	60,000	55,000	55,000	-8.3%	8.28	6.96	6.96	-15.9%
Peanuts	690,000	500,000	460,000	-33.3%	1.53	1.12	1.096	-28.4%
Soybeans	430,000	400,000	500,000	+16.3%	75.72	76.02	77.48	+2.3%
Tobacco⁴	16,000	15,000	14,000	-12.5%	.354	.35	.344	-2.8%
Wheat	480,000	340,000	370,000	-22.9%	63.15	58.64	59.78	-5.3%

1/ Million acres

2/ USDA, *Prospective Plantings*, March 31, 2009.

3/ USDA, *Acreage*, June 30, 2009.

4/ Acres harvested.

Georgia cotton acreage is estimated at 980,000 acres—40,000 acres higher than last year. Final acreage could top 1 million acres. The crop was planted later than normal so late season weather and good harvest conditions will be critical. Georgia acreage increased due to lack of stronger competition from peanuts and declining fertilizer prices which improved relative net returns.

US cotton acreage, however, declined for the 3rd consecutive year. Acreage is estimated at 9.05 million acres. This is 240,000 more than farmers said they intended to plant in the March report but still 4.4% less than last year. Acreage continued to decline in the Mid-South and Texas. Acreage in Mississippi and Louisiana is now less than 300,000 acres in both states.

After lows back in March, cotton prices have flirted with the 60-cent level—peaking at around 63 cents back in May and early June. December futures are currently around 59 to 60 cents. Demand (exports) have been relatively good but often erratic.

The slightly higher acreage planted number will have little or no impact on the market. Instead, all eyes are on crop conditions and the uncertainty with how many acres will actually be harvested. Abandonment in Texas is already expected to be high. Prices have a good chance to make another run at better than 60 cents. The keys will be crop development and harvest and continued good export demand.

Georgia's corn acreage was pegged at 450,000 acres, up significantly from the 350,000 acres planting intention in March and 80,000 acres more than last year. Georgia ended up following the national trend of more corn acres in 2009. Peanut acreage was perhaps the biggest surprise for Georgia. March intentions pegged Georgia peanut acreage at 500,000 acres for 2009-- which would have been a significant decrease of 27.5% from 2008. The June Acreage report estimated actual planting at 460,000 acres-- 33% less than last year. Georgia farmers planted significantly more soybeans than earlier indicated by March intentions. According to the Acreage report, Georgia acreage is estimated at 500,000 acres-- 100,000 more than the March number and 70,000 acres more than last year.

For a detailed discussion of US and Georgia acreage including market analysis for each crop, see the 07-09-09 issue of the Market Watch newsletter at:
<http://www.ces.uga.edu/Agriculture/agecon/newsltr.html>

Leaf Spots and Cotton. (*Kemerait*) Leaf spots on cotton caused by various fungal pathogens were common in Georgia in 2008 and will likely occur again in 2009. Recent very hot and dry weather followed by a week of overcast skies, rainfall, and cooler temperatures coupled with initiation of flowering in many fields could produce outbreaks of *Ascochyta* wet weather blight and perhaps even *Stemphylium* leaf spot across the state.

Fortunately, most of the leaf spot diseases occurring on cotton are generally of little or no importance and do not need to be controlled with a fungicide. However, there are a few exceptions. For example, *Ascochyta* wet weather blight can become severe following extended periods of overcast skies and storms and boll rot pathogens can reduce yields but are difficult to control.

The most damaging foliar disease of cotton in Georgia is *Stemphylium* leaf spot. In the most severe cases, large areas of a field may become completely defoliated within just a few weeks following initial detection. The fungus that is associated with this disease, *Stemphylium* spp., is ubiquitous, i.e. found abundantly, in our area. The "spark" to this disease is almost certainly a nutrient deficiency, typically potassium, that weakens the ability of the cotton plant to protect its leaves, which are then easily infected by the fungus. Massive premature defoliation can (and does) dramatically reduce yields.



Nearly identical to Stemphylium leaf spot in appearance and damage to the crop, Alternaria leaf spot (pictured above, Dr. J.E. Woodward) replace Stemphylium leaf spot in Texas.

Our soil fertility specialist, Dr. Glen Harris, tells that while insufficient potassium levels in the soil are one possible condition resulting in Stemphylium leaf spot, there are others as well. For example, potassium is moved through the plant in the water taken up by the roots. In periods of heat and dry weather, there may be insufficient water uptake, and thus potassium uptake, to adequately protect the leaves.

Currently, two fungicides are labeled for use on cotton in Georgia- Headline (pyraclostrobin) and Quadris (azoxystrobin). These are both excellent fungicides and they have been shown to be effective at management of some diseases (e.g. areolate mildew and Ascochyta wet weather blight) when applied ahead of the diseases. Although there have been “trends” in the data to suggest that timely use of these fungicides can result in sufficient yield increases to be of economic benefit, we at the University of Georgia still do not have data to offer growers a definitive recommendation on use of fungicides on cotton. For example, in 2008, fungicides applied to cotton (Attapulgus, Decatur County) immediately prior to a mid-season tropical storm seemed to produce an increase in yield; however earlier application did not improve yields. Also, in a dramatic (non-replicated) example from Pierce County seemed to show a tremendous benefit from use of Headline for management of Stemphylium leaf spot; however this benefit was not always observed in other fields.

Our current points for use of fungicides are as follows:

1. Headline and Quadris are important fungicides and they are labeled for use on cotton in Georgia.
2. These fungicides, when applied ahead of disease, can control some fungal diseases of cotton and prevent premature defoliation.
3. Data from some disease trials suggest that use of these fungicides can improve yields; however the results are typically statistically inconclusive and the apparent yield increases may not be enough to pay for the application.

4. It is unclear what benefit use of a fungicide like Headline will have on the control of an important disease like Stemphylium leaf spot. With help from BASF, we continue to assess this problem.

Stemphylium leaf spot tends to remain a problem in specific fields over time. If a grower has such a field (or fields), in addition to carefully managing his potassium fertility, he may want to apply Headline (6 fl oz/A) to five or six strips across the field approximately 2-4 weeks following first bloom (and before symptoms occur) to determine if this treatment is effective.

Cotton Layby! (*Culpepper*) It is evident that many growers have extremely large pigweeds in their cotton crop. For those growers not using residual based programs, this result continues to be expected. Unfortunately, there are also growers using sound residual programs that are facing this late-season pigweed challenge. For large pigweeds, the P&P program (Plowing and Pulling) is often the only consistently effective option, albeit not really an economical option for sure. REMEMBER if you are spending the money to hand weed Palmer amaranth, make sure to carry the plants from the field as they will re-root once it rains!!!!

Growers who are timely treating small pigweeds do have herbicidal options.

1. Diuron (Direx, others) + MSMA has proven time and time again to be one of the most effective and economical treatments when spraying pigweeds 4 inches or smaller in size. Below are several key factors to consider prior to spraying diuron + MSMA in cotton.

- * Diuron rate: 1.6 to 2.4 pt/A, see label for use on your soils, cotton must be 12 in tall.
- * Check label for rotational restrictions as your next crop may be sensitive.
- * MSMA rate: 2.5 pt of a 6.6 lb ai per gal or 2.67 pt of a 6.0 lb ai per gal.
- * Add Crop Oil when applying diuron + MSMA alone.
- * The addition of **Valor** to this mixture will not improve control of emerged Palmer but will improve residual control, especially if rainfall does not occur within 7 days of application. If adding Valor to a diuron + MSMA mixture one **MUST USE SURFACTANT and NOT CROP OIL!!! Never apply Valor with crop oil at layby.**
- * A weakness of diuron + MSMA is controlling larger morningglory (> 4 inch). The addition of Aim, ET, or Valor to diuron + MSMA will improve control.
- * Valor, Aim, and ET should only be applied to cotton that is at least 18 inches tall having 3-4 inches of a “barky” stem. Spray should not contact higher than 2 inches up on the cotton.
- *These mixtures will be far more effective when applied in 15 to 20 gallons of water per acre when compared to lower volumes such as 10 gallons per acre.

2. Paraquat (38 fl oz of Gramoxone Inteon) + diuron (1.6 to 2.4 pt) + Crop Oil is the single most effective herbicide mixture to control emerged Palmer amaranth. It will often control Palmer up to 8 inches in size if applied appropriately. However, there are several key factors to consider before spraying this mixture in cotton.

***HOODED APPLICATION ONLY!!!!!!**

*Spray or even spray drift **CAN NOT contact any part of the cotton or very, very SERIOUS injury will occur.**

*Of course, this application will not control weeds in the cotton row.

*Apply in 15 to 20 gallon of water per acre.

*See label for use of diuron on your soil.

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Your local County Extension Agent is a source of more information on these subjects.

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