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PERSONAL ESTIMATES OF THE 2005 CROP	1
TIMELY HARVEST MAXIMIZES PROFIT	2
PREHARVEST GLYPHOSATE APPLICATIONS IN ROUNDUP READY COTTON	2
SPOTS AND 'TODES	3
WORMS AND BUGS	4
DEFOLIATION TIME \$	4
NEW FORMULATION OF THIDIAZURON	5
GEORGIA QUALITY COTTON AWARD	5

PERSONAL ESTIMATES OF THE 2005 CROP. (*Brown*) The initial estimate of the 2005 crop projected a yield of 746 lb/A in Georgia. When that prediction was released, I thought, "We'll beat that. We should make at least 800 lb/A." A few weeks ago I sat in a meeting of Southeastern Ginners and heard glowing reports and high expectations about the crop. I wondered to myself, "We have a pretty 'bush,' but do boll counts match?" With a crop spread over 1.2 million acres, no one can know for sure, but I do believe we will significantly improve upon last year's 675 lb/A. For now, I'll stick with my 800 lb/A guess. Such opinions are free, and, of course, the proof is in the picking. Time will tell.

I'm still hopeful, but there are some concerns that threaten my optimism.

- Parts of the state, particularly southwest Georgia, have experienced excessive rainfall over the last weeks. Boll rot often coincides with rank growth, and it is rampant in many fields. [On a positive note, Labor Day has brought a different "feel" about the weather. 'Seems like humidity has fallen and drying conditions have improved greatly, which is perfect for cotton maturity and harvest.]

- Worm activity has been more noticeable than I can remember. Even with my poor eyes, I've occasionally observed square and boll damage even in Bt cotton. Also, there are reports of pyrethroid control problems on corn earworm.

- Without question, we've had a summer of high temperatures, and that usually negatively affects both yield and quality. Stress from overcast, rainy conditions in June and high temperatures in July and August contributed to heavy fruit shed in places.

- The most prevalent escaped weed across the state is Palmer amaranth, and it is all too common in cotton, peanut, corn, and other crop fields. With the confirmation of Palmer amaranth resistance to glyphosate in one area of central Georgia, seeing so much pigweed makes me wince.

- Peanut acreage has increased significantly this year. Since both crops were planted about the same time, they are likely to be simultaneously ready for harvest. Timeliness of harvest will be a challenge.

Communication with colleagues in Louisiana and Mississippi suggests less damage than expected. While some fields suffered yield losses of 70 percent, the overall reduction is probably 10 to 20 percent for the two states, respectively. Obviously, the real losses are way beyond cotton.

TIMELY HARVEST MAXIMIZES PROFIT. (*Brown*) The 2005 crop is speeding toward maturity. A few fields are ready NOW. If there is a single advancement we can and should make in our cotton culture in Georgia, it is a greater sense of urgency about harvest. Timely harvest maximizes yield. Timely harvest maximizes quality, and given the pressures and publicity from the cotton industry regarding the matter, we have additional incentive for timely harvest. We need to do everything possible to gather the crop as rapidly as possible.

Research indicates that delays in harvest can reduce income by up to \$30/A per week once the crop is ready. "Ready" typically means 60 to 70 percent open or 5 to 6 nodes above cracked boll. The latter recognizes that 1st position bolls 5 to 6 nodes above a cracked (or open) 1st position boll are sufficiently mature to allow harvest aid application. Harvest readiness can also be tested with a sharp knife. Bolls that are difficult to cut and which have seed coats that are darkening (turning from clear to tan to brown to black) are ready.

Timeliness of harvest maximizes, yield, and profit.

PREHARVEST GLYPHOSATE APPLICATIONS IN ROUNDUP READY COTTON (*Alan C. York, N.C. State University*) About this time of year, we get questions on when it is safe to make a preharvest glyphosate application on Roundup Ready cotton to control weeds that should have been controlled in June and July.

As you know, most growers have come to believe that an application after the Last Effective Bloom Date (LEBD) does not harm cotton. Is that the case?

Glyphosate labels have not changed concerning preharvest applications. Labels still say wait until the 20% cracked boll stage.

Stanley Culpepper (Univ. Georgia), Sandy Stewart (LSU), and I did some research a few years back to look into timing of preharvest glyphosate. The study had four NC locations, and two locations in each of the other states. The work was recently published in Journal of Cotton Science. You can read all the details on methods and results at the following:
www.cotton.org/journal/2005-09/2/upload/jcs09-110.pdf.

The conclusions from the above paper read as follows: "...recommendations for late-season glyphosate application could reasonably be changed to allow application 14 or more days after

the last effective bloom date if fruit retention on lower sympodia is normal. If early fruit retention is poor, delaying glyphosate application until the 20% cracked-boll stage would be advised to avoid potential adverse effects on yield."

Results from that study showed very little adverse effect on yield from application at LEBD or 7 days after LEBD, and certainly no effect from application at 14 days after LEBD.

SPOTS AND 'TODES (*Kemerait*) As the 2005 cotton season in Georgia winds down, three common problems have been noted by agents and consultants in past month.

1. Spots on leaves, petioles, bolls, and bracts in southwest Georgia's cotton have been an issue for growers since early-to-mid August when they suddenly appeared in conjunction with two weeks of cooler, overcast weather. The spots, typically small to moderate in size, are ringed by a dark brown-to-purple margin. Based on symptoms and on the environment that was associated with disease development, the most likely culprit here is *Ascochyta*, or wet weather, blight. Most of you are familiar with mild outbreaks of this disease on young cotton early in the season. While more common in April and May because of cooler, wetter conditions, it is not uncommon to occur later in the season when conditions are favorable.

There has been concern that the *Ascochyta* blight will lead to massive defoliation and boll rots. After observations of the condition in several fields in southwest Georgia, it is clear that the disease has continued to spread within fields, but not necessarily between fields. However, the spots on the leaves do not seem to spread as they do in *Stemphylium* leaf spot, nor do they "coalesce", i.e. smaller lesions merge to form larger lesions. Also, there does not seem to be the dramatic defoliation as associated with *Stemphylium* leaf spot. While spots on the bolls can be of great concern, the spots that I observed, even on older bolls, were fairly superficial and did not appear to be affecting the lint.

Many agents, consultants, and growers have asked about the use of fungicides to control this disease. First, it is important to note that we do not have any fungicides labeled for foliar applications to cotton, though intensive studies are underway on Topsin, Quadris, and Headline. Fungicide has been used in 2005 in several field trials to evaluate performance of fungicides on foliar diseases of cotton. In one situation where fungicide was applied AFTER the disease was common in the field, application of fungicide did nothing to reduce the severity or spread of the disease. However, where the same fungicide was applied when disease severity was VERY low, it did appear that the disease was more severe in untreated areas than in treated areas. We should have data available at the Cotton Production Workshop in December.

2. *Stemphylium* leaf spot has been reported with some regularity at the end of the season, primarily from western Georgia. As with *Ascochyta* leaf spot, *Stemphylium* leaf spot can produce dramatic symptoms on the cotton foliage. However the spots from *Stemphylium* are significantly different in that they are generally a bit darker brown, lack the distinct

purple-brown border, and they do enlarge, coalesce, and lead to massive defoliation. The driving force behind *Stemphylium* leaf spot is not so much the pathogen or the weather, but potassium deficiencies, which makes it Dr. Glen Harris's problem! The lack of potassium, as I understand it, results from insufficient potassium in the soil, or drought conditions where insufficient potassium is moved through the plant in the water stream. Management of this disease is not through fungicides, but through proper nutrients.

3. Nematodes, or 'todes, typically become a major issue late in the season because symptoms and damage become clearly evident. Premature cutout, stunting, foliar symptoms, and possible galls on roots all reach a peak at this time. Growers can begin management for the 2006 season by taking a few simple steps. First, growers can identify fields where damage from nematodes has been severe. In these fields they can either decide to rotate away from cotton to a non-susceptible host, or increase the level of nematicide that they will use. Second, growers can begin pull nematode samples from their fields, staying within the root zones. From the results of these samples, the growers can determine if they need nematicides next season and what type and rate they plan to use. In 2006, growers will have the option of several products that are labeled and/or marketed for management of nematodes. These include Telone II, Temik 15G, Avicta Complete Pack seed treatment, and N-hibit/Proact program from Eden BioScience. I'll have results from field studies where these products were used for presentations at the Cotton Production Workshop and winter meetings.

WORMS AND BUGS (*Roberts*) Corn earworm, soybean loopers, and stink bugs continue to be the three primary pests encountered in cotton. With the exception of stink bugs, pest pressure was relatively light during July. However August has been a different story in several areas. Corn earworms have required at least one insecticide application in several parts of the state (especially southwest and west Georgia). In some fields control has been difficult and two or more sprays have been made. Bolls are susceptible to corn earworm damage until approximately 20 days of age. Soybean loopers have also required treatment in several areas. Steward and the insect growth regulators Intrepid and Diamond have provided good control of soybean looper. Control of loopers is recommended when they threaten to defoliate cotton with immature bolls. Looper feeding in the lower canopy may actually be beneficial to a point in some fields. However, foliage which is feeding immature bolls must be protected. Stink bug numbers have been moderate to high in most parts of the state since mid July. Continue to scout and treat as needed until bolls you plan to harvest are at least 25 days of age.

DEFOLIATION TIME \$ (*Jost*) The 2005 Harvest Aid Recommendations are posted on the cotton web page (www.ugacotton.com). Also posted on the cotton web page is a link to a site managed by Chem Nut, Inc. (www.chemnut.com), which includes a "Defoliation Calculator". This is an easy to use calculator to compare costs of various defoliation programs.

To use this defoliation calculator, however, the user must provide a cost for each of the harvest-aids in the units specified. Some specify a price per gallon; others specify a price per quart. Once you enter the price in the required units check the "select" box. Then go to the middle

portion of the page and input the rate of the harvest-aid in ounces. After that let the calculator do the rest of the work.

NEW FORMULATION OF THIDIAZURON (*Jost and Brown*) As of last year Dropp (Thidiazuron) is available as a soluble concentrate formulation – DroppSC. With the SC formulation 1 pt is equivalent to 1 lb of the 50WP formulation. In several trials conducted in Midville last year the SC and WP formulations did not perform differently.

GEORGIA QUALITY COTTON AWARD (*Jost*) Entry forms have been sent to all gins in Georgia soliciting nominations for the first Georgia Quality Cotton Award. Each gin will be allowed to nominate a grower within each of three acreage categories. Entry forms will also require that various information concerning the production of the crop be disclosed. In order for this entry form to be complete it must be verified by the county agent from which county the majority of the cotton is grown. Look for these packets over the next several weeks. While filling out entry forms may be a tedious process, they will be well worth the effort. The primary goals of this award are to recognize farmers and gins producing high quality cotton, identify associated management practices, and publicize improved quality in Georgia cotton.

County agents please talk to ginner in your county to make sure they are aware of this award.

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

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