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

Georgia Cotton

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HOW MUCH COTTON HAVE WE LOST? HOW MUCH COTTON WILL WE MAKE? PERSONAL CONFESSIONS OF CONFUSION. (***Brown***) We have watched four major storms (Charley, Frances, Ivan, and Jeanne) pummel parts of Georgia and a cotton crop that we predicted was at best average to slightly below average. We were convinced that the 2004 yield would not come close to the 785 lb/A harvested in 2003.

I remember passing through Dooly and Macon Counties a couple of days after Frances visited. Cotton looked worse than awful. Most fields were a tangled mess. Some were lying almost flat. Once white locks were tarnished and muddy.

Similar reports surfaced after each of these events. "Cotton looks really bad...We've lost as much as 65 percent in some fields... Some fields are a total loss...We have anything from 50 to 300 lb/A on the ground...Cotton is sprouting in the bur and on the ground...We won't be able to get through these fields."

Areas of the state had over 15 to 20 inches of rain from mid-August through September. Wind speeds of up to 50 or 60 mph were recorded at multiple sites across the state during these storms.

The initial USDA estimate of the 2004 Georgia crop was 738 lb/A, 2.0 million bales from 1.3 million acres. September figures were revised upward (pre-hurricane estimates) to 762 lb/A, 2.0 million bales from 1.26 million acres.

We've walked fields. We've counted locks in the dirt. We've estimated losses. We've seen sufficient cotton on the ground, rotted, or otherwise un-pickable to conclude that we've suffered losses of 20 to 35 percent across the state, that our total average has declined 100 to 200 lb/A.

As bad as the cotton has looked, as bad as it looks when you move through it with a picker, we're still harvesting some decent if not good cotton in plots from Tifton, Moultrie, Camilla, and Bainbridge.

Have we really lost 100 lb/A, maybe even 200 from what we once had? Yes, I am convinced of that. Will our state average reach 700 lb/A or be closer to 600 lb/A? I am confused. Given what I thought we had – a crop no better than 730 lb/A – and given what the crop has been through, it is hard to imagine that our final yield could average outside the range of 500 to 600 lb/A.

But the proof is in the picking. Where we have cotton to pick, we are doing much better than expected. The next couple of weeks will reveal what we really have.

NEMATODE PRIME TIME! (*Kemerait and Brewer*) Populations of parasitic nematodes on cotton will be at their largest numbers at harvest. Growers who wish to identify fields where nematodes are adversely affecting their crop should pull nematode soil samples prior to mid-December and certainly before the first freeze of the season. Identifying elevated levels of nematodes now will allow the grower to make better management decisions for 2005. Based upon the types of nematodes recovered and the population size, the grower will have information useful for crop rotation decisions and the use of nematicides.

Below are a few reminders on how to get the best results from a nematode sample.

1. Insure that soil samples are obtained in the root zone of the cotton plants, not in the row middles. The largest number of nematodes will be associated with the root system.
2. Pull multiple soil samples and once finished with the collection, mix the multiple cores together to insure a representative sample. (Only about one pint needs to be shipped for each combined sample, so make sure mixing is thorough.)
3. In a field where there are obvious "trouble spots", it is wise to submit separate samples from the "good" areas and the "bad" areas in order get a better understanding of the population fluctuation in the field.
4. CONSIDER INCLUDING ROOT SPECIMENS IN THE SAMPLE. This can be very important, especially if soil samples come back with low populations of parasitic nematodes, though symptoms in the field are evident. There are times when fewer nematodes are recovered from a soil sample than the agent, grower or consultant expects. In such situations, it can be VERY beneficial to have a sample of the infected roots as well. These root samples can be assessed in the diagnostic lab, much like soil samples. Obtaining good soil samples has an element of "hit-or-miss"; recovery from symptomatic roots can be much easier.
5. Remember that nematodes are living organisms. Think of your soil sample like you would a container of red wiggler fishing worms. If they get too hot in the sun, or locked in your truck, they will perish and the sample will be of little benefit.

6. Ship the samples as quickly as possible to the nematode assay lab of your choice, e.g. the UGA Nematology lab in Athens. If your sample will be delayed in shipment, it would be wise to store it in the refrigerator, or at least in a very cool place, as this will improve the survival of the nematodes.

What should be done if results from a soil sample do not seem to agree with field observations? Occasionally, soil samples are sent from a field where parasitic nematodes are very likely causing damage, but the results do not indicate a problem. First and foremost, it must be remembered that assaying soil samples for nematodes is part science, part art, and part luck. Assuming that the samples are collected and handled properly, there is always the possibility that two samples collected from the same area of the field will give different nematode counts due to variation in the populations of the nematodes. Also, in some instances, galling may be observed on the root system; however few nematodes have migrated from the roots into the surrounding soil. And of course, there is always the chance that a mistake is made somewhere in the process of sampling, shipping, storing, extracting, assaying, and recording results which results in a sample with few recorded nematodes.

In order to minimize the risk of underreporting of parasitic nematodes, consider the following.

1. Follow the recommendations presented earlier.
2. Include root samples with the soils samples. You don't need entire root samples; portions of symptomatic roots in the soil are fine.
3. If for any reason you doubt the results from a sample that you have submitted, by all means, re-sample and send the soil to the lab again. Our goal at the University of Georgia's Nematology Lab is to provide an excellent service and accurate results. We will be more than willing to confirm results from production fields for you.

NEMATODE ROUND-UP 2004. (***Kemerait and Brewer***) Due to requests from a number of county agents, Cliff Brewer at the UGA Nematology Lab has agreed to continue our survey of nematode fields again this season. Below are the requirements to participate in this project for 2004.

1. The Nematode Round-Up is intended to provide an opportunity for the agent to offer education to cotton growers on the presence of nematodes within a specific county.
2. Soil samples will be pulled by the agent or by the grower at the direction of the agent.
3. Samples will be pulled from RANDOM FIELDS not previously included in the 2002 or 2003 surveys. It is important that the results not bias our survey results, suggesting more nematodes than are actually distributed across the state.
4. There is no charge for survey samples. Samples not fitting the above criteria, such as typical predictive samples, will require a fee.
5. For further information on participation in this effort, county maps, etc., please contact Bob Kemerait at kemerait@uga.edu.

DEFOLIATION OBSERVATIONS (*Jost*) Several trials have been put out across the eastern side of the state to look at the performance of various harvest-aids. With the recent tropical storm issues much of our non-irrigated cotton has a tremendous amount of juvenile growth (or regrowth). In these trials several treatment options have given some favorable results.

Treatment	Comments
Ginstar @ 5 to 6 oz + Prep @ 1.33 pt *or* Finish @1.33 pt *or* CottonQuik @ 1.75to 2 qt	Good removal of both mature and juvenile leaves within 6 to 10 days. Provides boll opening activity and regrowth control.
Def/Folex @ ½ to 1 pt + Prep @ 1.33 pt *or* Finish @1.33 pt *or* CottonQuik @ 1.75to 2 qt	Good removal of both mature and juvenile leaves within 6 to 10 days. Provides boll opening activity, but no regrowth control if harvest is delayed.
Ginstar @ 7 oz	*Several studies put out prior to hurricane induced rainfall demonstrated good removal of both mature and juvenile leaves within 10 to 14 days with this treatment. However, observations made on fields receiving this treatment after these rains have not been as positive in some areas. The addition of ethephon containing materials, and a reduction in the Ginstar rate seems to greatly improve the defoliation response under current conditions. (see above options)*

In a nutshell these trials have shown that these juvenile leaves can be removed fairly easily, and that inclusion of an ethephon containing material can significantly accelerate the process.

STINK BUG DAMAGE MUCH LOWER IN 2004 (*Roberts*) Stink bug damage is significantly reduced this season compared with 2003. This is especially noticeable on bolls in the upper canopy of the plant. Without question, stink bug infestations were not as severe in 2004 compared with 2003, but scouts and growers also did a much better job with stink bug management programs. We are further investigating the potential impact stink bugs have on fiber quality. Our preliminary data suggest that excessive damage can lower many fiber quality parameters. Several studies are in process to further confirm these observations.

CHANGE OF COTTON WEB PAGE ADDRESS. The URL for the Cotton Web Page has changed to www.griffin.uga.edu/caes/cotton. The old URL containing the "peachnet" portion of the address will cease to work in the near future.

COTTON PRODUCTION WORKSHOP. Put on your calendars! The University of Georgia Cotton Production Workshop will be held December 14, 2004 at the RDC in Tifton. There will be much discussion concerning the fiber quality issues that have come to the forefront in Georgia. A full agenda will be coming soon.

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

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