



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



Georgia Cotton

August 31, 2010

www.ugacotton.com

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Crop Condition (*Collins and Whitaker*)

The status of the 2010 cotton crop in Georgia is widely variable, dependant upon planting date, rainfall that occurred during bloom, and environment, especially irrigation capabilities. In some fields, boll opening began in late July or early August; however a large majority of the cotton acreage, primarily in Southwest Georgia, has a very large proportion of bolls open, and the progression of boll opening for the remaining bolls appears to be very rapid....more-so than normal. This was somewhat expected, as the hotter and drier weather that occurred during July shortened the bloom period resulting in a compact-fruited crop for cotton planted in late April or early May. Later-planted cotton, primarily in Southeast Georgia, which had not reached full bloom when hot dry weather prevailed, was slightly better suited to recover and develop more harvestable bolls on upper nodes.

When a greater-than-normal proportion of bolls are open in August, several challenges may be presented, especially now that frequent rainfall has returned. In years like this, when blooming ceases earlier than normal, the photosynthetic demands of the compressed boll population are also met earlier. Once plants meet their photosynthetic demands for the current boll load, and if adequate heat and moisture are still prevalent, juvenile growth will likely be initiated at the terminal bud, and at axial buds at the junction between branches and the main stalk (Figure 1). Juvenile growth, and regrowth, tend to be very difficult to defoliate, and usually require the use of defoliant that contain thidiazuron (Dropp SC, FreeFall SC) or thidiazuron plus diuron (Ginstar EC, Adios) in tank mixtures. In addition to effective and rapid defoliation, growers should attempt to harvest as soon as 10 to 14 days after defoliation. Prolonging the time between defoliation and harvest may allow for more regrowth to occur.

Exposure of seedcotton to frequent rains and warm humid conditions also presents several challenges. Prolonged exposure not only degrades fiber quality, but can result in boll rot, seed sprouting through the lint, and hard-lock (Figure 2) which can influence harvest efficiency and yields. Timely defoliation and harvest shortens the length of time that bolls (open or closed) are exposed to these conditions, and may help promote better yields and fiber quality. Rapid leaf removal allows bolls to dry and open slightly quicker. The use of ethephon (several brands) and ethephon-containing defoliant (Finish 6 Pro, CottonQuik, FirstPick) in tank mixtures can

promote rapid boll opening and thus a quicker harvest which can assist in avoiding some of these complications.



Figure 1. Juvenile growth and regrowth which is more likely to occur in cotton that cease blooming prematurely, and/or when sufficient heat and soil moisture persists during the latter part of the season.



Figure 2. Hardlocked bolls or poor boll opening which can reduce harvest efficiency and yields.

Several growers have observed the scenario illustrated in Figure 3 where the majority of the harvestable bolls are open, however the recent rains have revamped terminal growth and square development. Some of these growers have inquired about delaying defoliation and harvest to see if some of these new squares have the potential to develop into harvestable bolls. Observations over several years indicate that blooms that occur prior to September 10th in South Georgia have a greater chance of developing into harvestable bolls (although there is variability in the last effective bloom date between individual years). Keep in mind that the last effective bloom date pertains more to the individual fruit in late-planted cotton with a normal progression of fruit development and little or no bolls opened by this date. The scenario in Figure 3 is quite different. In this situation, waiting on the recently established upper squares to develop drastically increases the chances of fiber quality degradation and yield loss of the exposed seedcotton on lower nodes, which comprises the majority of the harvestable cotton anyway. In most situations this year, it is advised that growers manage the crop to optimize yields and quality of the boll load that they know is harvestable.

When making decisions whether to delay defoliation or proceed with harvest, growers should realize the risks involved, realizing that conditions may not continue for optimal fruit development. Later developed fruit are often smaller in size than earlier set fruit and should be considered when accessing boll counts. When waiting for a later crop, small bolls will also need to be managed for insects, especially stinkbugs, as young bolls will be some of the last targets for these pests. Other considerations in making defoliation decisions should include picker and labor availability as well, as other crops are likely to be harvested during the fall.



Figure 3. The majority of the bolls are open, however recent rains have initiated new square development in upper nodes

2010 UGA Cotton & Peanut Research Field Day **In Tifton - September 8, 2010**

The Georgia Cotton Commission, along with the Georgia Peanut Commission and the UGA Extension Cotton and Peanut Teams, will co-sponsor a joint Research Field Day on Wednesday, September 8, 2010, in Tifton, from 9:00 a.m. to 12:30 p.m. The purpose is to showcase, for growers, current research in plot-side presentations by researchers. The sponsors' goal is to provide an educational environment for cotton and peanut producers giving them opportunity to pose questions directly to the researchers and to interact with the Commissions' board members and staff. It is also a chance for growers to voice opinions and concerns about anything pertinent to the production of their crops. The sponsors urge cotton and peanut growers to mark their calendars and plan to attend this important event. *It is an excellent place for producers to observe, first-hand, the research program funded by their check-off investment.*

There is no charge to attend the field day and it will begin at the UGA Gibbs Farm and immediately following the tour, a sponsored lunch will be served at the Blackshank Farm. The tentative schedule follows though it may also be viewed and printed from the Georgia Cotton Commission's website: www.georgiacottoncommission.org

Please confirm your attendance by September 1st by contacting Mrs. Sara Cates at 229.386.3006

Directions to UGA Gibbs Farm

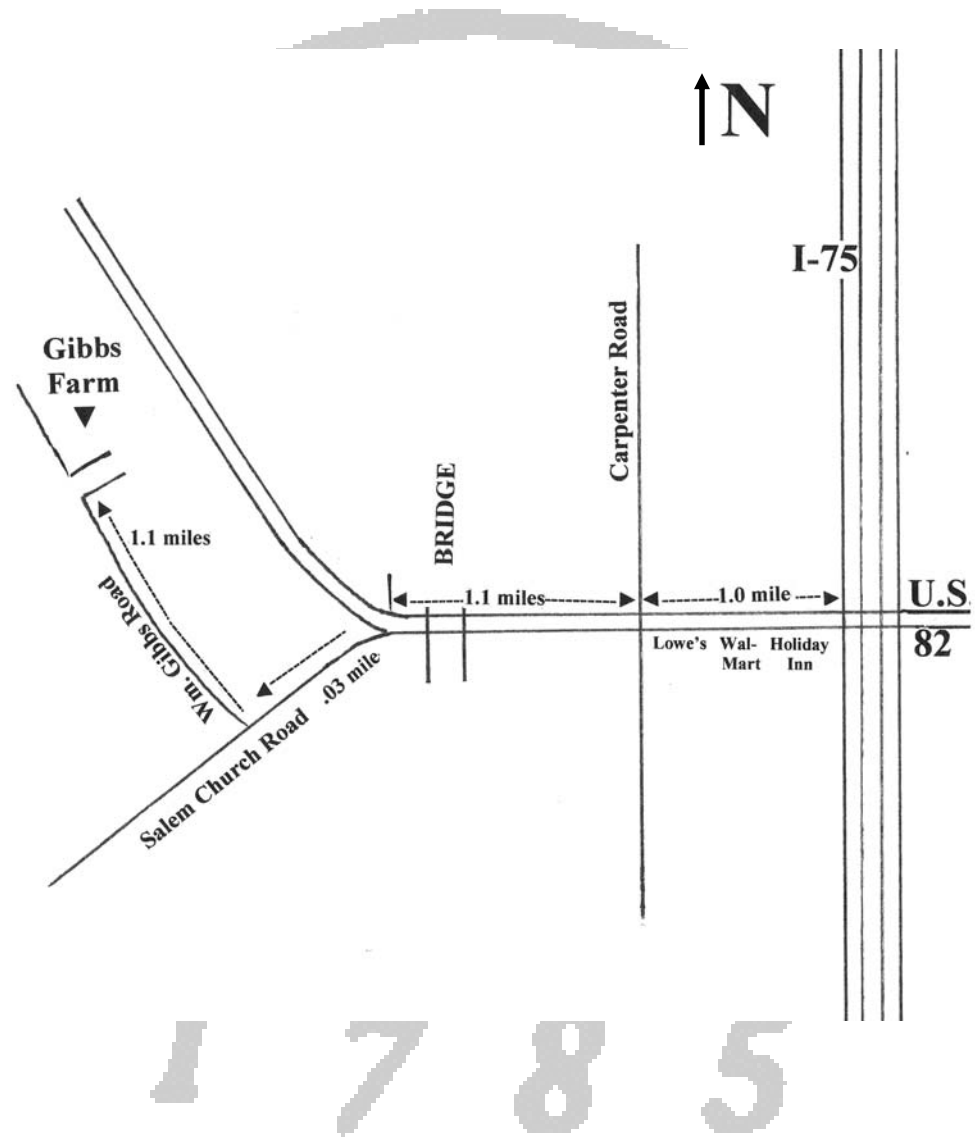
Southbound on I-75:

Take the exit for US 82 and turn left (west) at the end of the ramp.
Follow the directions below to the farm.

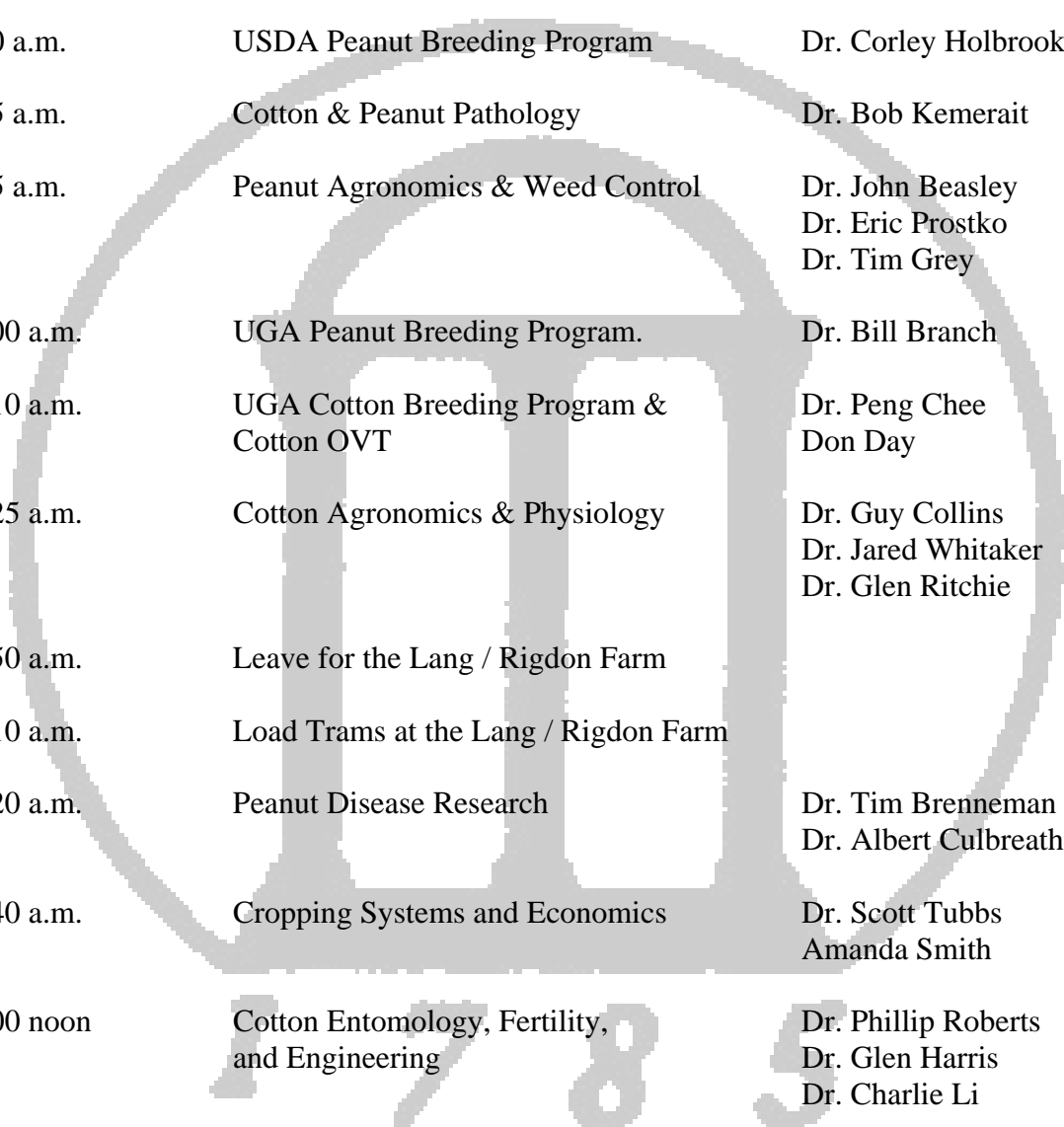
Northbound on I-75:

Take the exit for US 82 and turn right (west) at the end of the ramp.
Follow the directions below to the farm.

- From the interstate ramp, travel for 1 mile going west on Hwy 82 and cross over Carpenter Road. Continue for 1.1 mile to a fork (you will pass over a bridge) and bear left at the fork onto Salem Church Road.
- Travel for .03 mile and turn right onto William Gibbs Road.
- Travel for 1.1 mile and turn right to enter Gibbs Farm.



Tentative Agenda



8:30-9:00 a.m.	Arrival at Gibbs Farm	
9:00 a.m.	Welcome	Dr. Joe West
9:05 a.m.	Discussion of Logistics / Load Trams	Dr. John Beasley
9:20 a.m.	USDA Peanut Breeding Program	Dr. Corley Holbrook
9:35 a.m.	Cotton & Peanut Pathology	Dr. Bob Kemerait
9:45 a.m.	Peanut Agronomics & Weed Control	Dr. John Beasley Dr. Eric Prostko Dr. Tim Grey
10:00 a.m.	UGA Peanut Breeding Program.	Dr. Bill Branch
10:10 a.m.	UGA Cotton Breeding Program & Cotton OVT	Dr. Peng Chee Don Day
10:25 a.m.	Cotton Agronomics & Physiology	Dr. Guy Collins Dr. Jared Whitaker Dr. Glen Ritchie
10:50 a.m.	Leave for the Lang / Rigdon Farm	
11:10 a.m.	Load Trams at the Lang / Rigdon Farm	
11:20 a.m.	Peanut Disease Research	Dr. Tim Brenneman Dr. Albert Culbreath
11:40 a.m.	Cropping Systems and Economics	Dr. Scott Tubbs Amanda Smith
12:00 noon	Cotton Entomology, Fertility, and Engineering	Dr. Phillip Roberts Dr. Glen Harris Dr. Charlie Li
12:30 p.m.	Lunch at the Blackshank Pavilion	
After Lunch	Gibbs Farm Cotton OVT Demonstration for Anyone Interested	Don Day Larry Thompson

Contributions by:

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

Edited by: Guy Collins, Extension Cotton Agronomist

Putting knowledge to work

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SCIENCES, WARNELL SCHOOL OF FOREST RESOURCES, COLLEGE OF VETERINARY SCIENCES

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