



Your Experts for Life

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News Letter May 2007

Cotton Acres: How do we rank?

This USDA report came out on March 16. As you know these are just estimates and will not be the final or actual acres planted. The report however may be of some interest. Last year there were 564,657 certified acres of cotton in Alabama. As of March 16, 2007 there are 447,989 intended acres of cotton in Alabama with a 20.66 % reduction.

County	Certified Acres 2006	Intended Acres 2007
Baldwin	11,033	8,500
Butler	1,052	1,052
Clarke	702	702
Conecuh	5,206	5,206
Escambia	25,723	23,000
Mobile	9,968	9,800
Monroe	22,203	20,000
Washington	711	711
Total	76,598	68,971

9.0 % Reduction

Escambia ranks 5th and Monroe ranks 9th in cotton production statewide. These are not the final planted acres. The final planted acres will not be reported until July.

Upcoming Meetings

Cotton Scout Schools

June 5 Autauga County Extension Office, Autaugaville, AL. 8:30 a.m.-12:30 p.m.

June 6 Wiregrass Research & Extension Center, Headland, AL. 8:30-12:30 p.m.

June 19 Tenn Valley Research & Extension Center, Belle Mina, AL. 8:30 a.m.-2:00 p.m.

Cotton, Peanut and Soybean Pest Management Meeting

Date: June 28, 2007

Place: To be announced. Monroe County

Time: 11:00 a.m. until 1:00 p.m.

Purpose: To gain timely information on cotton insects, and diseases and insects on soybeans and peanuts.

Speakers:

Dr. Ron Smith, Auburn University Cotton Entomologist, Cotton Insect Pest.

Dr. Ed Sikora, AU, Soybean Plant Pathologist, Asian Rust and Insects on Soybeans

Dr. Austin Hagan, AU Peanut Specialist, Diseases on Peanuts

Richard Petcher, Burrower Bug and other insects on peanuts.

Cotton, Peanut and Soybean Pest Management Meeting

Date: June 28, 2007

Place: To be announced in Baldwin County

Time: 6:00 p.m. until 8:00 p.m.

Purpose: To gain timely information on cotton insects, and diseases and insects on soybeans and peanuts.

Speakers:

Dr. Ron Smith, Auburn University Cotton Entomologist, Cotton Insect Pests.

Dr. Ed Sikora, AU Soybean Plant Pathologist, Asian Rust and Insects on Soybeans

Dr. Austin Hagan, AU Peanut Specialist, Diseases on Peanuts

Richard Petcher, Burrower Bug and other insects on peanuts.

Spring Freeze Injury on Corn and Wheat

The cold snap at Easter injured and killed much of North Alabama's wheat, oat and corn crops. Growers now are replanting some of their corn acres and harvesting some of their wheat for hay. Many growers are still making decisions on the remaining crop. South Alabama growers experienced a narrow escape. The temperatures did not get as low here as were predicted. In fact the cold nights probably helped our small grain crops. Small grains flourish with cold nights and warming days. They also respond well to fairly dry years. Corn on the other hand likes warm days as well as warm nights and prefers a once a week shower.

The following information from **Kansas State** may be helpful for future use.

Spring freeze injury occurs when low temperatures coincide with sensitive plant growth stages. Injury can cover large areas of the state or only a few fields or parts of fields. It is most severe along rivers, valleys, and depressions in fields where cold air settles. The

risk of spring freeze injury is greater when wheat initiates spring growth early due to higher than average temperatures and inadequate moisture and advances through its developmental stages quicker than normal. If a freeze occurs, wheat has a greater chance of being damaged because it is further advanced. Wheat that has had good growing conditions, optimum fertility, particularly nitrogen, and is actively growing is sensitive to freeze injury because of its lush growth and high moisture content. Drought stress tends to harden plants to cold and decreases their water content and the severity of freeze injury. Ample soil moisture, cool temperatures, and high soil fertility slow plant maturity, however, so that injury may be less severe than when plants have less favorable growing conditions and are at a more advanced growth stage when freezing occurs.

Corn Freeze Damage;

Up until the time that corn is in the V6 growing stage about 12 inches tall it typically will grow back after a freeze. That is because up until that stage the growing point of corn is still below the earth’s surface and is typically protected unless the soil itself freezes.

Assessing Damage: On both small grains and corn it is best to wait from 5 days to a week before making your assessment. The frost damage may take several days to appear and then a few more days to see new growth. Always take your time before making a decision. Replanting corn is very seldom a good decision. On freeze stressed crops it is best to wait and let the crop fully recover before applying herbicides, fertilizer and even irrigating.

Table 1. Temperatures that cause freeze injury to wheat at spring growth stages and symptoms and yield effect of spring freeze injury.

Growth Stage	Approximate Injurious Temperatures (2hours)	Primary Symptoms	Yield Effect
Tillering	12 F	Leaf chlorosis; burning of leaf tips; silage odor; blue cast to fields	Slight to moderate
Jointing	24 F	Death of growing point; leaf yellowing or burning; lesions, splitting, or bending of lower stem; odor	Moderate to severe
Boot	28 F	Floret sterility; spike trapped in boot; damage to lower stem; leaf discoloration; odor	Moderate to severe
Heading	30 F	Floret sterility;	Severe

		white awns or white spikes; damage to lower stem; leaf discoloration	
Flowering	30 F	Floret sterility; white awns or white spikes; damage to lower stem; leaf discoloration	Severe
Milk	28 F	White awns or white spikes; damage to lower stems; leaf discoloration; shrunken, roughened, or discolored kernels	Moderate to severe
Dough	28 F	Shriveled, discolored kernels; poor germination	Slight to moderate

Cotton Nematode Management

In Alabama reniform and root knot nematodes reduce cotton production by an estimated \$35 million per year. For the past 15 years research has been conducted in a cotton field on Larry Ward's Farm in Huxford, in Escambia County. The reniform nematodes are at a high level in this field. The research is being conducted by Dr. Kathy Lawrence, Dr. Bill Gazaway and Randy Akridge, Superintendent of the Brewton Research and Ag Research Center. The primary research is conducted with cotton rotations and comparing new nematicides with the standards Temik 15G and Telone II.

Here are a few tips to help growers with their management system.

1. Know the levels and kind of nematodes in your fields. This is best done by collecting soil samples in the late summer for analysis.
2. Rotate. Rotation studies of cotton, corn and peanuts show the nematode level to be ten times higher in March when cotton is planted behind cotton rather than cotton behind corn or peanuts.
3. Keep your fields clean. If you do not have nematodes do everything you can to keep from getting them.
4. Treat your fields with nematicides that are appropriate for you nematode levels. Where nematode levels are high growers should consider using Telone II or an additional side-dress application of Temik to control the nematodes and optimize yields. Where nematodes are at or approximately threshold levels a grower may chose to use 5.0 lb/A Temik in-furrow. Use AVICTA Complete Pak, or possibly the new AERIS Seed Applied System but only in fields with light to moderate reniform nematode populations.

5. Plant the cotton when growing conditions are good. This will give the nematicides and the cotton a better chance in working.
6. Use your best seed with the best cool germ possible when planting into these fields.
7. Using starter fertilizer can also give cotton an added boost when running the race with nematodes.
8. Again, know the levels and kind of nematodes on your farm. You need samples from your farm. Try your own on farm experiments. Know your nematode levels and then try some of the products available for that level. Conduct side by side comparisons of nematicides in the same field.

Cotton Thrips Management

Dr. Ron Smith, Auburn University Cotton Entomologist

Several options are available for at-planting early season insect control. These include the seed treatments Cruiser and Gaucho Grande, as well as these same products combined with a nematode component (Cruiser as Avicta Complete Pak and Gaucho Grande as Aeris Seed Applied System). In addition we have Temik 15G as an in-furrow granule. I am sure each grower has already made the decision as to which of these they will use in 2007. In-furrow sprays with acephate or imidacloprid are also an option, but are not widely used. Each of these options have their pluses and minuses. The weather, and how rapidly the cotton grows off, has much to do with how effective these various treatments are. In springs like 2006, basically all at-planting options needed help in the form of a foliar overspray. Foliar spray options include acephate (Orthene and other generics), Bidrin, dimethoate, and Centric. Pyrethroids are effective on thrips if they are needed at this time for cutworm control. Just as with the at-planting treatments, each of these foliar options have their place. The decision to use a foliar spray should be based on several things. Planting date, time required for emergence, temperatures (especially night time), days or weeks post-planting, thrips numbers and visual appearance of the seedling plants. In general, the seed treatments give 21-28 days thrips protection while Temik will last about one week longer. The clock begins on the planting date and not the emergence date. Most seasons, cotton is beyond thrips injury when it reaches about the fifth true leaf. The greatest benefit from a foliar spray comes when it is applied at the one to two true leaf stage, before the true leaves take on a crinkled or distorted appearance from thrips injury.

Tips from Cover Crop Meeting

This meeting was held on Jimmy Brooks Farm in Monroe County on April 4, 2007. This meeting was a combined effort of growers and research scientists. The best way to make progress is growers and scientists sharing ideas and working together. This article is a short summary of that day. Some of these topics may be helpful to you on your farm.

Jimmy Brooks. The entire field day was on Jimmy Brooks farm near Uriah. Brooks focuses on winter cover crops to produce high tonnage residue for next season's cotton crop. He is one of the most advanced farmers in Alabama using cover in a high residue

conservation system. The high residue cover builds up organic matter in his soils. This maximizes his soil's ability to optimize yields. The cover is not a cash crop for him, but it certainly increases his yields on his cotton cash crop. It takes a little more management, but the benefits are multiplied many times over. The value of conservation tillage that means most to him is the time it saves him in labor and in fuel in trips across the field.

Eddie Nall from Monroe County got into conservation to save his soil. Farming erodible land was a constant battle but conservation tillage with cover crops has solved the erosion problem and given him more time to focus on producing his crop rather than repairing terraces and washes in his field. Of major benefit to his conservation farming is what he calls "Poor Mans Irrigation". Both sub-soiling and the cover crops give his cotton crop a tremendous advantage during droughts. Nall also encouraged every farmer at any level to try conservation. Nall said it could be done. Do not let equipment or the lack of equipment hold you up. Start on a small scale and go from there. A strip till rig and hooded sprayer are enough to get you going. Nall is a cotton and cattle farmer. His winter crop of rye is for grazing and for cover. There is probably not one square foot of bare soil on his entire farm. There is always something growing.

Tim Mullek a grower in Baldwin County shared from experience one of the best methods of getting cover planted. The Mulleks broadcast their wheat just prior to digging their peanuts using two bushels of seed per acre. They would consider upping the seeding rate a little if planting for a grain crop. The peanuts are then dug and combined as usual. The wheat comes up shortly there after to an excellent stand. This method works so well because it takes little time to broadcast the seed with a truck and then requires no disking or running a grain drill. Handling seed in bulk also saves time and money. Saving your own seed for planting for next year could be an option for growers looking to save some money on high seed costs. (But check PVP and patent status).

Randy Raper, Ag Engineer and Lead Scientist of the Conservation Systems Research Team at the USDA-ARS National Soil Dynamics Lab at Auburn. Mostly because of the soil types that we have in South Alabama, we almost always need to subsoil to remove the effects of soil compaction. Any other tillage or traffic that we apply to the soil increases the problem of compaction and the need to subsoil. Reduced tillage and cover crops are the best tools to help with compaction. It is also important to know exactly how deep your compaction zone is. When subsoiling, every inch you go deeper is more horse power required. It is really helpful to get a soil penetrometer in order to find your field's compaction zone. Once you know what you are doing you can use a poor man's penetrometer, a wire flag to find the compaction zone. If you subsoil and plant in different operation, it is important to place the row directly on top of where you subsoiled. For each inch you plant off of the row your crop's yields start going down. If you get off even two inches, your yields can decrease by as much as 20 %. This is why precision agricultural devices on your equipment are so helpful.

Andy Price, Weed Scientist with the Conservation Systems Research Team at the USDA-ARS National Soil Dynamics Lab at Auburn. Having a heavy residue helps with weed control by shading the weeds and holding the weeds down making it harder to get

through the cover. Some covers have an allelopathic effect (release chemicals) that suppress the weeds. Many growers using heavy cover have actually found they can sometimes reduce one or two herbicide sprays. The cover crop may eliminate the need for a pre-plant herbicide. In order to save a trip, if you need a pre-plant the burn down and pre-plant can be applied together. Crop rotation is also a good technique in avoiding herbicide resistance.

Kirk Iversen, Technology Transfer Coordinator who works with the Soil Dynamics Lab at Auburn had an outstanding exhibit of information and displays of crimson clover, lupin, hairy vetch, sun hemp, medic, rye, black oat, turnip (brassicas) Austrian winter peas and wheat. The conservation movement is a constant involvement with growers and research.

Edzard van Santen, Professor of Agronomy and Soils at Auburn University: Cover crops are one of the oldest agronomic practices known to man. Dr. van Santen is a plant breeder with Auburn University who developed AU Robin Crimson Clover and Homer White Lupin and is developing a Lupin for livestock and for deer food plots. Dr. van Santen has done and is continuing to do extensive research with cover crops. Choosing a cover crop for your system is an important step in the planning process. Dr. van Santen's primary work is with legumes that fix nitrogen that can be released for the next crop reducing fertilizer costs. However, he is conducting research with a multitude of other cover crops that may be very helpful for growers in Alabama.

John Fulton, Professor of Bio-Systems Engineering at Auburn University, covered all levels of precision agriculture, but mostly about auto steer and how you can get within several inches of the exact spot you are aiming at year after year. To get a system that accurate will cost between \$30 - \$50,000. However, as technology advances, prices for these higher accuracy guidance systems will start to drop and be more cost effective. A couple of new technologies discussed were boom-section or individual nozzle control on sprayers. Most manufacturers of sprayers and spray controllers are providing these technologies which can have substantial savings on chemical applications. Further, planter manufacturers will provide individual row control in the near future which could also provide seed savings by minimizing overlap at headlands and on point rows.

Dennis Delaney emphasized the overall conservation system. Benefits are from controlling erosion, better water infiltration, fuel savings, labor savings, cooler soil temperatures during the summer, and long-term organic matter buildup. Early planting is key for good fall growth of covers, leading to earlier spring growth and kill dates. With heavy grass cover residue, increase cotton N rates about 30 lb/A. Nematodes are a concern with some cover crops, but research has shown that killing the cover before the soil warms up (mid-April) prevents nematodes from multiplying, so that doesn't need to affect your choice as long as the cover is killed at the right time. Delaney is the Extension Specialist for Soybeans as well as Conservation Cropping Systems.

Steve Yelverton with the NRCS office in Covington County summarized the different government programs and recommended that growers go to their local NRCS office and get your name in the pot.

The meal for the day was prepared by Joyce Nicholas and Robin Thames with Monroe County NRCS and sponsored by the Alabama Chapter of the Soil and Water Conservation Society and was also sponsored by David Whitehead with Valent and Rod Higdon and Terry Little with Monsanto. Both Whitehead and Little presented some valuable information on burn down herbicides. The meal was also excellent. Special thanks to Jimmy Brooks and Eddie Nall for hosting this field day.

Soybean Herbicides:

The adoption of the Roundup Ready® system in soybeans has greatly simplified weed control for most producers, with an estimated 95% or more of Alabama's acres in the system. However, there are still many times where using other methods and herbicides can be helpful. A good cover crop and fast canopy closure can be some of your best weed control methods. Pre-emergence herbicides can be particularly helpful in controlling small seeded weeds like grasses, Florida pusley, and pigweeds, and allow more flexibility in spraying. Many older herbicides have gone off-patent and prices have dropped, so that producers may want to check into other options, or use a tank-mix, even with Roundup Ready beans. The more rotation of herbicide families that we use, the lower the chance of resistant weeds, like the Palmer amaranth (a pigweed species) that most of us have heard about, becoming established on our farms. Even with glyphosate, target small weeds that are still easy to control. A good "rule-of-thumb" is to plan on the first application of glyphosate 21 days after planting, but this will depend on growing conditions for the weeds and the crop. With drilled soybeans you can often get by with one herbicide application, but with wide rows it often takes two sprays.

PEANUT INOCULATION

Research is being conducted at the University of Georgia, by Dr. John Beasley on peanut inoculation. The Georgia recommendation at this time is to use an inoculant if peanuts have not been planted in a field in the past four years. What about new regions that have not had a long history of growing peanuts? If in the previous 5 years the land has had peanuts only 1 time you should inoculate. If in the previous 5 years you have had peanuts 2 or more times research shows no increase in yield by applying an inoculant.

The 2007 April **Picksack** Newsletter is now online at:

[http://www.ag.auburn.edu/xfer/alabamacotton/picksack/2007/2007 April Picksack Newsletter.pdf](http://www.ag.auburn.edu/xfer/alabamacotton/picksack/2007/2007%20April%20Picksack%20Newsletter.pdf)

The Alabama **Soybean rust hotline** presented by Dr. Ed Sikora is 1-800-446-0388

The Florida Soybean rust hotline is 1-866-361-9942. This may be helpful for growers on the Florida border.