*How Will Cotton React to the Dry Weather?  Dale Monks

We have been getting several calls from central and southern counties about how cotton is likely to react to the moisture stress that has been present for a number of weeks. If you consider the time period from April 1 until June 16, 2006, we are currently around 5 inches of rainfall behind for that time period. During the same time period, we are also running about 10 to 15% ahead on the DD60 count which is a direct reflection of temperature (http://www.ag.auburn.edu/xfer/alabamacotton/ddinformation.html). Given the cool temperatures in early May, the rest of the period has been running higher than normal for several weeks. The irrigated cotton that I have seen is growing rapidly and setting an excellent crop; however, the dryland cotton fields I have been in are generally surviving and waiting for moisture. Crop conditions change...
with area and soil texture, but this is a reasonable representation of a large number of acres.

Cotton’s reaction to the high temperatures and dry weather is a difficult prediction since we do not know how long this is going to last. There are some things that we can consider, however. Since it is still early in the growing season, cotton likely still has time to recover and produce a reasonable crop. I have counted cotton out in previous years and have been surprised at how resilient the crop can be. Once rain comes, we can also expect to see some small square and immature boll shed as the plant reacts to more favorable growing conditions. Several years ago, drought conditions were so severe in the Wiregrass that ankle-tall cotton was setting a single bloom in the very top of the plant in July. After rain came later in the summer, the plant began to grow again and produced a very late crop. Some of the early-planted cotton should be getting near the bloom stage at this point in mid-June. It remains to be seen how our cotton will react but keep in mind that it is a tropical plant with a perennial growth habit that keeps it in the ballgame for much of the season. When you consider long-term average rainfall, July is one of Alabama’s wettest months. Hopefully, this year will be no different and will help move the crop forward.

*Insect Situation Report: R. Smith, Extension Entomologist*

As in most years, tarnished plant bugs are abundant in central and south Alabama on daisy fleabane along roadsides and field borders. The majority of the population in mid-May was about 2nd instar nymphs (less than one-half mature). This means it was about 14 plus days until they were adults ready to migrate to cotton or other hosts. Peak movement began and continued for the next couple of weeks. Plant bug movement peak is usually sharp but not of long duration (about 7-10 days). The oldest mature fields, those with pin head squares in early-mid June was likely the preferred plant bug host and probably received the most damage.

Treatment decisions should be based on the percent retention of pin head squares. Greater than 80% retention is desirable. If fields do not reach treatment thresholds in June they should be monitored for plant bug numbers through early to mid July. After bloom it will be best to observe for damaged white blooms (dirty blooms). Fifteen to 20% dirty blooms in July should be used as a treatment threshold. If central and south Alabama fields have not been sprayed for plant bugs by July 15-20, a clean up spray with a pyrethroid is often warranted.
*Spraying Drought Stressed Weeds: M. Patterson, Extension Weed Scientist*

Most of the row crops (and weeds) in Alabama are under drought stress as of this writing. Many fields have significant weed pressure and need to be sprayed with post-emergence herbicides. Since the great majority of fields in Alabama are not irrigated, should we wait until after a rain to spray the weeds? In most of these situations I feel that the weeds should be sprayed now rather than waiting. Will you get reduced weed control? Probably, but waiting for a rain that may be a week away is probably bad advice. If a significant rain occurs (greater than an inch), then you may not be able to get equipment into the field for a couple of days, especially if the soil has a good amount of clay content. This allows the weeds time to grow, thus becoming harder to kill, especially for herbicides that have marginal activity to begin with.

Glyphosate has marginal activity on most morningglory species, and waiting until after a rainfall event makes it that much harder to obtain control. Adding ammonium sulfate (several products available) to the mix will aid the uptake of glyphosate into hard-to-kill or drought stressed weeds. Spraying early in the morning before leaves on weeds wilt due to drought stress will also help. Often we don’t expect a foliar herbicide treatment to kill the weed outright, but to help by stunting the weed in order to buy some time for the crop to grow and obtain a height differential so directed sprays can be used. Several different formulations of glyphosate are now being marketed. Read the label of each product to be sure that the product you are using will allow the addition of ammonium sulfate. Also, if the glyphosate product does not contain a surfactant, be sure to add a good quality nonionic surfactant at the rate of 1-2 quarts per 100 gallons of spray mix. Staple and Envoke both have good foliar activity on broadleaf weeds in “normal” situations. However, in drought conditions, they will probably not perform as well as we would expect. Both products require the addition of a good quality nonionic surfactant. Envoke has a state label for the addition of Staple in tank mixture for added broadleaf control, especially for smallflower morningglory. The rates are 0.1 to 0.15 ounce of Envoke plus 0.6 to 0.9 fluid ounce of Staple LX.

*North Alabama Cotton Update: C. Burmester, Extension Agronomist*

The northern Alabama cotton crop continues to improve from the wet and cool conditions experienced in May. Most of the cotton crop is squaring although some of the late planted cotton is now only at the fifth or sixth node. We should see many of the cotton fields with blooms in early July. In fact a cotton bloom was found in an early planted cotton field in Limestone County this week. Generally, the cotton is much shorter than normal at this stage of the season. Farmers are side dressing nitrogen fertilizer and hoping for a good rain to promote more vegetative growth. Early season thrips pressure was much heavier than normal with most fields receiving at least one foliar spray this
season. Insect pressure after the thrips, however, has been light. Only a few problem fields with aphids or spider mites have been reported. Plant bugs are also not a factor at this time. With a very open canopy, weeds have been growing well, and more farmers have products with some residual activity in combination with Roundup to try to keep weeds under control until lay-by.

Erratic cotton growth across fields has been reported recently. Farm visits have indicated most of these problem areas to have a very poor root system. Some of these problems have been traced back to seedling diseases, wind damage, and reniform and root knot nematode infestations.

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*Market Report: B. Goodman, Extension Economist*

We have seen a nice recovery on the cotton market, with December futures moving up into the upper 50’s, settling out around 56-57 cents. At first I thought we were going to blow right on through into the 60 cent range right away, but the rally seems to have petered out due to concerns regarding the state of the economy and the size of China’s crop. I wrote several weeks ago that it looked to me like the cotton market had turned around. A week or so ago chart on the December contract gapped upward. A gap is said to be a signal that the market wants to go strongly in that direction. You can usually predict the strength of the market by measuring the slope of a line drawn through the gap. The steeper the line through the gap, the more likely the market is to move higher. Or, you could just flip a coin. I really don’t believe all that chart mumbo-jumbo. I just believe in supply and demand. Demand is strong and supply is “iffy”; hence, the strong price.

The good news is that I think we still have some room on the upside once we get used to being where we are now. It is almost like we need to pause here for a minute to catch our breath. Once the market gets used to seeing cotton price around 57 cents we will probably move higher. During this time of year we traditionally fixate on the condition of the crop in the US, with all the experts explaining what the numbers in the crop condition report mean. If that happens, in my opinion we have to move higher given the dismal condition of the crop in the southeast and the likely high abandonment of the dryland acreage in Texas. Of course, it doesn’t hurt that demand, in spite of all the gloom and doom on inflation and the economy, is still very robust. The export numbers on China, our big trading partner, are holding up nicely, which is important. Good news from China about demand probably won’t push the market higher, but at least they support prices where they are.

The corn market is showing some staying power, holding around $2.80. A local farmer called me and wanted to know if he should sell some corn. I asked him how many times he thought he would get a chance to sell $3 corn. ‘Nuff said.
Actually the corn market may be showing signs of maturity. There is a lot of volatility in the corn market now, and I hope all corn producers took advantage of the pricing opportunities we have just seen. It is hard to price a crop on the way down, but I would encourage any of you who have not priced corn to find a home for it soon. Beans are just flat. Well, not exactly flat but pretty solid in the $6.10-6.20 area. I wish I could give some advice in the bean market, but there are just too many unknowns to predict a direction for the bean market with any degree of confidence (like that has stopped me from making predictions before). My best advice is to check the Profit Profiles on the web at (http://www.aces.edu/dept/profitprofiles/) and price beans when you can pencil in a profit or when you can meet your marketing objectives. Or when the moon and stars are aligned. Or whatever, I just don’t know. I would price some corn, not beans. We can talk about cotton after it gets over 60 cents.

*Crop Management and Loss Control: Bob Goodman, Economist*

I have asked several experts and they all agree that there is plenty of season left to make a full crop, but the slow start to this year’s crop in many areas has to be a big strike against us. We have had two good years in a row, unless you live in hurricane country. While that fact doesn’t statistically lower our chances for another decent yield this year you have to think that sooner or later we are going to see a poor year for production. I hope it isn’t this year, but with the drought and slow start, I was thinking about how a manager might respond to the conditions we are facing. If you assume that the yield potential of the crop is in some way diminished, it might be a good idea to consider what management decisions you could make in response.

I asked this question again this morning around the coffee break table with the experts all sitting around. I usually ask it at some point every year. The answer again this year was “not much”. With all the input costs loading more and more onto the front end of the year there is not much left to respond with. You could try to cut your growth regulator, but that’s a “gimmie”. Who would spray growth regulator on drought stressed cotton? You might hold off on worm sprays if you have low worm numbers but if they can be controlled with pyrethroid, how much money are you saving? Not much. You might hold off on late season stink bug sprays, but we have seen some tremendous returns to July-August insecticide applications. Stink bugs are easy and cheap to kill and they do tremendous damage.

I guess what I’m driving at is that it is still early in the season and we might have a bad year. We certainly are off to a very poor start. It looks like we missed Alberto’s rain, but maybe his little sister will bring us some water. Remember, it’s a long season and there is some time left. Unlike corn, with cotton you get chance after chance after chance to set a decent crop. You get an early crop, a
middle crop, and a late crop. If you miss one, and we might miss the early one this time around, you still have a shot at the other two. You can’t put yourself into a hole where just because the first crop is short you don’t have a shot at the other two.

As a final note, I might be jumping the gun a little bit in telling you that Mike Patterson has some very interesting plots going out at EV Smith this year. It is a weed control experiment that involves tillage and it may have a big impact if we see expansion of the territory affected by glyphosate resistant Palmer amaranth. Tillage has almost become a bad word these days but the “I” in IPM stands for Integrated (Pest Management). IPM means using all the tools available and tillage is one of those tools. As we get deeper into the conservation tillage era, we may find the old tillage tools still have a place from time to time for fertility, pest, and disease management. Nobody wants to talk about that now. To promote use of tillage is not politically correct, apparently. But you may even find yourself on a tractor hooked to a moldboard plow again someday. Time will tell, and never is a long, long time.

*USDA Crop Report: B. Goodman, Economist

USDA Crop Condition report for Alabama has 20% of the crop rated poor or very poor. We have 46% fair and 34% good, which is a lot better than Texas where they have 40% rated poor or very poor. Neither state has any rated excellent. They have us 100% planted, with 11% squaring. We usually have about 16% squaring by now, which is an indication that the crop is behind. Tennessee and Mississippi are the states here in the Southeast that have a good crop this year, according to USDA. I think the Delta has been getting rain. Even though Georgia and the Carolinas have a few percent rated excellent, they have a big hunk of poor and very poor too, and their statistics look a lot like ours. Across the whole US Cotton Belt, we have 6% very poor, 6% poor, 36% fair, 36% good, and 6% excellent.

*Precision Ag Notes: S. Norwood and A. Winstead, Multi-County Agents, Precision Agriculture

WAAS Satellite Changes: A new WAAS satellite will be on-line this fall. The current WAAS satellite is moving further west in anticipation of the new WAAS satellite. Alabama users should not experience any problems due to this change. For a more detailed explanation, please visit http://www.aces.edu/precisionag/misc/WAAS_update.pdf.
Yield Monitoring: Now is the time to prepare your picker or combine for yield monitoring. If you are interested in purchasing a yield monitor, the Precision Ag Team will be glad to assist you with product selection. We can also provide assistance with calibration and data analysis. Some equipment may only require minor modifications (Greenstar-ready combines, for example) to be converted to yield monitoring and mapping.

If you already have a yield monitor, start preparing your field list to put into the monitor. Now is the time to see if there are any software updates available for your monitor. All yield monitors should be calibrated; however, this can be done at any point during the harvest season. You may want to calibrate the monitor for early-season vs. mid-season varieties.

3rd Annual Precision Ag and Field Crops Day:
The Dee River Ranch, near Aliceville in Pickens County, Alabama, will be on July 19, 2006. The Agenda and directions are available from any Extension agent, or they can be accessed from the ACES Precision Ag website at: http://www.aces.edu/precisionag/

Tours and presentations will cover a wide range of precision ag and biofuel topics of interest to farmers and producers.

*2006 Cotton Calendar. D. Monks, Extension Specialist

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<tr>
<th>Date</th>
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<tr>
<td>June 20</td>
<td>East Central Peanut Scout School, Shorter</td>
<td>L. Kuykendall</td>
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<tr>
<td>June 21</td>
<td>SW Peanut Scout School, Atmore</td>
<td>R. Petcher</td>
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<tr>
<td>July 19</td>
<td>Precision Ag Field Day, Pickens Co.</td>
<td>S. Norwood, A. Winstead</td>
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<td>Aug 3-6</td>
<td>ALFA Commodity Tour and Conf., Huntsville</td>
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<td>Aug 18</td>
<td>East Alabama Crops Tour</td>
<td>Jeff Clary, L. Kuykendall</td>
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<td>Aug 22</td>
<td>SW Field Crops Day, Huxford</td>
<td>R. Petcher</td>
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There are two websites that you may be interested in visiting:
Weekly crop updates: www.nass.usda.gov/weather/cpcurr/al-crop-weather
Alabama cotton information: www.alabamacotton.com
*Alabama Regional Reports

*Northeast Alabama Crops Report
Mark Hall, David Derrick, Regional Extension Agents (REA)

Parts of the Tennessee Valley are in fair shape. It rained 3" around Huntsville on Memorial Day weekend and another inch the next. Other parts of the valley are very dry, and corn is silking. In Cherokee County in northeast Alabama, it is also extremely dry. Cotton is 6 to 8 inches tall and just not growing, although it still has good yield potential if rain starts soon. Corn has been hurt already, and has lost maybe 1/3 of its yield potential. Older corn is trying to tassel and silk, but we don't think we've seen corn look worse at this time of the year. Group III and IV soybeans are trying to bloom and may be significantly hurt already. If there is no rain next 2 weeks we will be looking at major disaster.

*Northwest Alabama Crops Report:
Tim Reed, County Extension Coordinator (CEC)

At this moment, most of Franklin County is dry. The last general rain was on June 1st and 2nd, when totals ranged from 1 to 1.5 inches in many places. The cotton planted latest (3rd week of May) will probably start squaring late next week. Stands are better than average but about 30% of the cotton has stopped growing due to the lack of water. The rest has perhaps a week to go before it is in the same boat.

*Wiregrass Crops Report: Brandon Dillard, REA, and Mary Baltikauski, CEC

It is dry in the Wiregrass with some places drier than others. The rain we have received since April (2-5 in.) all came in one big shower. Older cotton (~60 DAP) is reaching a more critical time for water, while the younger cotton has only a skippy stand or struggles to grow. On average, our cotton is around the 7th-8th leaf stage. There is some thrips pressure as well as aphids. Farmers are applying N, either through slit applications or side-dressing. Over all, the cotton crop is still in a position to make good yields, but water is becoming very critical. According to Mary Baltikauski, Geneva County has received less than 20 (19.8) inches of rain in 2006. The 77-, 10-, and 5-year averages are 30.3, 34.9, and 31.7 inches, respectfully, so a 50% rain deficit to date is a fair assumption for the Wiregrass.

*East Central Alabama Crops Report:
Leonard Kuykendall, REA, and Geni Payne, County Agent

The dry, briefly extremely wet and cold month of May made getting uniform cotton stands a challenge. There was no rain between April 9th and May 10th,
with very dry and sometimes cold weather between. The earliest cotton in Autauga/Elmore County planted on April 4 looks good. The bulk of the cotton was planted in late April-early May, although some fields had to wait until after May 10th for enough moisture to plant. A significant amount of replanting was necessary, and was finished in late May. To date, cotton is generally at the 6-10 leaf stage and squaring. There is some young cotton at 2-3 leaf stage.

Grasshoppers and thrips pressure was intense, and as many as 3 insecticide sprays were made to the young cotton. The Temik-treated cotton looked a little stronger on thrips control in side-by-side comparisons with the seed treatments, although all treatments failed in places with the high thrips pressure we saw this spring.

There are about equal proportions of “RR only” versus “BG/RR stacked gene” cotton in the area. As in previous years, Liberty Link and Roundup Flex varieties were planted in only a few fields with extra weed pressure. I expect to see more up and down cotton in the next few weeks were nematodes numbers are significant. Aphids will also likely be numerous under dry conditions with the amount of insecticide sprays. Farmers are running side-dress N applicators and postemergence herbicides (primarily directing glyphosate). Envoke and Staple applications are also being made where broadleaves are a problem.

Geni Payne reports that Calhoun County is semi-dry. She said that most places got a late afternoon rain on the 12th of June, but nothing measurable. The only hope for rain over the next week or so is for another shower or two the afternoon. Geni said cotton stands were about average, and that local farmers were calling this a “semi-dry” year but that the crop is later than last year.

*West Alabama Crops Report: Rudy Yates, REA

The Black Belt has had scattered showers this week. Rainfall has varied from an inch to zero just miles apart, and crops are hurting for moisture. Cotton is squaring in some areas and I’ve seen some corn tasseling. The town of Linden, in Marengo County, got an inch of rain last week, but Gallion, just 18 miles away in the southern part of Hale County, has remained dry. I’ve heard of one producer spraying peanuts for thrips and some plant bug spraying of cotton has been necessary. Iron chlorosis is showing up in soybeans, and the wheat harvest has been completed.

*Southwest Alabama Crops Report: Richard Petcher, REA

On the 70 thousand acres of cotton planted in Southwest Alabama growers did an excellent job of getting up a stand keeping their fields free from thrips and weeds. They have done an outstanding job in the most important and expensive part of the growing season. Southwest Alabama is mostly very dry, and the crop is suffering. Looking on the bright side, we are one day closer to the next rain.
Cotton is a tough plant, but the last that was planted is suffering for moisture. Of local interest is the amount of ratooned and volunteer cotton up in both Baldwin and Mobile Counties because of the mild winter.

*Reference Number: PSK-6-06, D. Monks, C. Burmester, and B. Goodman, editors

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Use pesticides **only** according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label.

The pesticide rates in this publication are recommended **only** if they are registered with the Environmental Protection Agency and the Alabama Department of Agriculture and Industries. If a registration is changed or cancelled, the rate listed here is no longer recommended. Before you apply any pesticide, fungicide or herbicide, check with your county Extension agent for the latest information.

Trade names are used **only** to give specific information. The Alabama Cooperative Extension System does not endorse or guarantee any product and does not recommend one product instead of another that might be similar.

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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