July 2004

Don’t forget to mark the tour dates for north and south Alabama in your calendars. The northern tour date is July 20 and the southern tour date August 17.

* North Alabama Cotton Crop Still Ahead of Schedule. C. Burmester

* Rainy Weather Increases Cotton Diseases. C. Burmester and Kathy Lawrence

* Cotton Insect IPM and Outlook. R. Smith

* Cotton: Laying The Crop By. M. Patterson


* 2004 Cotton Calendar. D. Monks

* Supplemental N for Cotton, Charles Mitchell, Extension Agronomist- Soils

North Alabama Cotton Crop Still Ahead of Schedule. C. Burmester

Many cotton fields are in their third week of bloom with a few fields blooming for nearly four weeks. The rainfall in late June and early July actually slowed many cotton fields due to wet soils and cloudy weather. Some small square shed was seen and we have our share of yellow cotton in many wet areas. Weeds have also done well during this wet period. Insect pressure is very low at this time and most fields are setting fruit rapidly.

Overall we appear to still be one to two weeks ahead of average for mid-July. The DD60 data in the table below show that it was mainly the good weather in May that put us ahead of schedule. After three straight years of below average DD60's for May we finally received about 100 extra DD60's in May this year. We have a long way to go with this crop, but it is nice to have a good start this season.

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Rainy Weather Increases Cotton Diseases. *C. Burmester and Kathy Lawrence*

For the last several years the wilt diseases of cotton have developed only in isolated fields in north Alabama. It appears that may be quite different this season. Since early July, isolated plants with wilt symptoms have been reported across the north Alabama cotton counties. Most diseased plants are being found in wet areas where the ground has stayed saturated for many days. Since we have not seen wilt in several years, here is some refresher information.

Verticillium and fusarium wilts are the two most common wilt diseases seen in Alabama. Symptoms are very similar, lower leaves become chlorotic between the large veins and along the leaf margins. This spreads up the plant and tissue becomes brown and necrotic. The lower leaves often fall off. The best way to check suspected plants is to split the stem, especially toward the ground level. Infected plants will have light to dark brown discoloration in this vascular tissue. Diseased plants may survive and can recover to some extent. Approaching harvest, however, these plants often defoliate early and do not fully mature bolls. Cool wet weather is known to increase these wilt diseases in the soil and nematode damage can provide entry points for the wilts. Resistant varieties have been the most successful tool we have used to control the wilt diseases in Alabama.

Kathy Lawrence is currently identifying which of these wilt diseases we are seeing. Early samples appear to be verticillium wilt, but she is continuing to run additional samples. It does not appear to be variety specific, because we are seeing it across a wide range of varieties at this time. Since there are no control measures for the wilt diseases once symptoms are seen, weather will play the biggest factor in its development. To see digital photos of infected plants and tissue, go to [http://www.ag.auburn.edu/dept/ay/variety/cotton/picksack/vwilt_photos/](http://www.ag.auburn.edu/dept/ay/variety/cotton/picksack/vwilt_photos/)

Cotton insects: Cotton Insect IPM and Outlook. *R. Smith*

Thus far in the 2004 season, the number of plant bug immatures that appeared in fields in July has been fewer than suspected, based on the number of adults observed in June. The dirty bloom counts, which indicate plant bug feeding on large squares, has also remained low in most fields, even where no treatments were applied. Most fields likely have some level of plant bugs remaining but it seems as though we can shift our focus, especially in central and south Alabama, to caterpillar pests and stink bugs. Hopefully, we will be able to clear up these remaining plant bugs as we need to overspray for escape worms or stink
bugs.

A low level of worm activity (likely budworms) has been occurring since early July. However, by mid month the numbers observed in a few fields had increased sharply. This has been especially true where bug sprays have been made. For the remainder of July, the worm species has historically been bollworms. This means that a pyrethroid application would give excellent control, as well as clean up the plant bugs and stink bugs that might be present. If the bollworm moth egg lay is medium to heavy, we would expect to see enough escapes associated with bloom tags, even in Bollgard cotton, to warrant a pyrethroid overspray. After August 1, in most of the state, and about August 10 in the Tennessee Valley any worm population will likely be a mixture of bollworms and budworms. Therefore, newer worm chemistry will be required if economic numbers are present.

For the remainder of the 2004 season we must be concerned about stink bugs. Both the brown and southern green species have been present in low numbers in most fields statewide. Stink bugs will begin damaging cotton at the thumb-sized boll stage. Most of our cotton is susceptible to stink bugs from about mid July to maturity. To determine when stink bug controls are necessary, we can go by visible presence or the examination of quarter-diameter bolls. These bolls should be sliced or crushed to observe for darkened seed, interior warts, and/or calluses.

**Cotton: Laying The Crop By.  M. Patterson**

It’s July and hot. This is what summer is all about in the South. Thank the Lord for air conditioning. However, without this kind of weather the South would not be a good area to grow cotton. As I travel around Alabama, most of the cotton looks like it is either ready for a layby herbicide treatment or has already had one. If you still need to make this last (hopefully) weed control measure to the crop, there are several options available to choose from.

Some new products are available this year for layby and we still have several older ones to choose from. The new ones include Valor from Valent Company, Suprend from Syngenta, and Layby Pro from Dupont. Valor is used at the rate of 1 to 2 ounces of product per acre and should be mixed with either MSMA or glyphosate (Roundup Ready cotton only) and directed to the base of cotton at least 18 inches tall. Suprend is used at the rate of 1 to 2 pounds of product on most of our soils. One pound of Suprend contains 0.15 ounce of Envoke and 0.8 pounds of prometryn. Suprend can be mixed with MSMA or glyphosate and directed to cotton at least 15 inches tall. Layby Pro is a mixture of diuron and linuron in equal parts. Using one quart of Layby Pro per acre will give 0.5 pound each of diuron and linuron. Layby Pro can also be mixed with MSMA or glyphosate and directed to cotton at least 15 inches tall. All three of these products will do a good job on small weeds (3 inches or less) and provide some residual control to finish the season if activated by rainfall or overhead sprinkler irrigation.

Other products that may be used in cotton for layby applications include fluometuron (Cotoran, etc.), diuron (Karmex, etc.), prometryn (Caparol, etc.), Cobra, Harvade, Aim, and ET. These materials should be mixed either MSMA or glyphosate (RR cotton only).
The duration of residual control will depend on the choice of product and the timeliness of rainfall or irrigation. Diuron is the most residual while Aim and ET have essentially no residual activity. Fluometuron and prometryn are in between these extremes. The choice of whether to use MSMA or glyphosate as a tank mix partner in my opinion depends on the size of annual grass in your cotton. If annual grasses are more than 3 inches tall or if you have bermudagrass in the crop, then the best choice for a tank mix partner is glyphosate. MSMA is effective on nutseedge and small annual grasses and also helps break the cycle of constant glyphosate use (important for delaying the onset of glyphosate resistant weeds).

**Cotton market update: July 2004, Bob Goodman**

I received the following letter from Stanley Walters the other day. Stanley is a successful and innovative cotton farmer in West Alabama and I thought that I would use my space here to pass along some cotton marketing advice from an older, wiser source:

Stanley wrote: “I was talking with Curtis Taylor, a semi-retired farmer from Greene County the other day. He has quit row crop farming and raises catfish in partnership with his son. We were talking about the cotton market and how even the experts had been fooled by the melt-down in prices this spring. Curtis was quick to tell a story from years-ago when prices dropped unexpectedly and suddenly. It was a story about an older gentleman and farmer from Eutaw, in West Alabama, Mr. James Ozment. Mr. Ozment is still living but is quite old. Mr. Ozment had quite a bit of experience in the farming profession, having farmed all his life and having financed quite a few farmers over the years as well. Curtis told the story like this: ‘When I was just out of college and had my first job as a management trainee for Alabama Farmers Co-Op at Rattlesnake Bend, I was drawn to his (Mr. Ozment’s) wisdom. Most people there were scared of him, he being the richest man in the county, and they thought he was just plain mean. He wasn’t; he just saw the world from a different point of view. Anyway, after being told of what was being said by the “experts” about what the cotton market was going to do, Mr. Ozment said rather quickly that ‘why you might as well ask the first ignorant loafer you see in Tishabee.’ The point was that the ‘experts’ are fooled with great regularity, and you could do about as well to flip a coin to decide if the market is going to rise or fall.”

“I had a thought, if someone were to ask what is a good price for cotton NOW, what would most people say? Maybe we should take one of those bold magic markers, maybe red, and write a 70 on the wall in front of our desks. That’s all, just 70. Maybe when it gets back to it we will be reminded to sell cotton.”

That’s pretty much what Stanley wrote, and I agree with his sentiments completely. I would just make a point as to which market we are talking about. In my opinion the 70 cents applies to the New York futures price for the nearby contract. Given a nickel basis, that would result in a local bid of 65 cents or better for good cotton with no significant docks. I think that would be a wonderful place to start pricing cotton, and maybe a bit optimistic this year, and you can write whatever number you want on the wall. I hope this market turns around soon, but remember when December futures passes your number, and everyone is talking about 80 cents or (someday even) dollar cotton, that you have to
sell into these rallies. Look at that big red number on the wall in front of your desk and remember. You don’t have to sell all your cotton when the futures price hits your mark, just some of it. You can start small, just force yourself to pull the trigger, and don’t give yourself a moving target where you tell yourself you will act if it just gets two cents higher.

USDA released some new projections for the 2004 crop this week, and they were not friendly to the price of cotton. They raised US carryout by a million bales, reduced our projected exports, and did not lower production as a smaller acreage was offset by a projected higher yield. Alabama was projected to harvest 550,000 acres, with the Southeast planting just over 3 million of the 13.9 million acres total US crop. Of course the market reacted pretty strongly, but they must realize that at these prices the loan becomes an attractive alternative. Also, all these dismal forecasts may not come to pass. The cotton is a long way from being in the bale. I know I sure wouldn’t be in a hurry to price cotton right now. Our trade provisions, our marketing certificates, are ever so important now to support this market. How can they say we distort trade when the price of cotton falls and China and Brazil and Uzbekistan combine to bring about 12 million bales more to the market in a low price year than they did last year. I just don’t understand their reasoning.

* 2004 Cotton Calendar. D. Monks

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<td>S. Norwood, C. Burmester</td>
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<td>S. Norwood, W. Birdsong</td>
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<td>August 27</td>
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*Retired county agent.

There are two websites that you may be interested in visiting:
Alabama cotton information: [www.alabamacotton.com](http://www.alabamacotton.com)

*Reference Number: PSK-7-04, D. Monks and C. Burmester, editors*
I've had several calls in July regarding source, method of application, and rates of supplemental N for cotton. Some of this cotton had little or no N applied at planting. When asked about the condition of the crop, most callers said that it was about waist high in early July. They are applying Pix but plants were a "... little yella". My first thought was that if you are applying Pix, you certainly don't need any more nitrogen. Experience also has taught me that the greenest cotton doesn't always make the highest yield.

This season is a great example of what water will do. Timely rains and high temperatures have produced a larger stalk than most of us are used to seeing in early July. These fields probably don't need more N. On the other hand, some fields have had excess rainfall that leads to excessive N leaching in sandy soils and denitrification in poorly drained fields. Either way, you've lost a lot of N. Some of it should be replaced.

How do you know for sure whether or not more N is needed? It is not easy. Experience is an awfully good teacher. Petiole and leaf analysis can help, too. Unless you are on a regular petiole monitoring program, taking one sample won't tell you much. For petiole testing to work, you have to take samples every week beginning at early bloom or late squaring and compare the changes that occur in petiole nitrates from week to week. Leaf blade samples can help if you take samples from "good" areas in a field and compare them with "poor" areas. Leaf blade analysis may show that some other nutrient is the problem instead of nitrogen.

But let's assume that "yella cotton" does indeed need supplemental N. As long as the crop is healthy and setting bolls, a foliar application of about 1 pound of feed-grade urea per gallon of water is still the best and least-cost treatment. If you put out 10 gallons of water per acre, this will be about 4.6 pounds of N per acre, not enough to cause excessive growth but enough to set a few extra bolls. This foliar application can be made as often as necessary as long as the crop is growing and setting bolls. Some dealers may offer other types of foliar-N sources. These should work well but compare the cost.

Where no N was applied at planting and/or most or all of the applied N were lost due to excessive rainfall, then you have no choice but to soil apply the supplemental N. Foliar applications are not recommended when you need to apply 20, 40, 60 or more pounds N per acre. This supplemental N can be broadcast over the top of the crop (dry fertilizer) or injected between the rows (liquid N). Try to avoid getting liquid N or ammonium nitrate on the cotton leaves as these materials could burn the leaves.

Last year, we lost all the N applied at planting on a test in the Black Belt of Alabama because of excessive rainfall early in the season. We applied different rates of supplemental N in late June (early blooming) to severely stunted cotton. Where 180 pounds N per acre were applied all at planting, we made 530 pounds lint per acre. Where we sidedressed with 120 pounds N on 24 June, we made 910 pounds lint per acre. Where no N was applied, only 400 pounds lint per acre was made. Research done in the 1980s
by Touchton and others demonstrated that it doesn't matter when you apply N to cotton as long as most of it is there at early bloom and doesn't get leached, denitrified or washed away by spring rains. This is why we always recommend split N applications. However, after mid-bloom, foliar N application is about the only way to go.

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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