



## Alabama Cotton Picksack Newsletter

### May 2008



- \***Cotton Growth Early This Spring:** *D. Monks*
- \***Cotton's Sudden Decline in North Alabama:** *C. Burmester*
- \***Vegetable Weevil Found Attacking Seedling Cotton:** *T. Reed, B. Freeman, and R. Smith*
- \***Herbicide Resistant Pigweed in Alabama?** *M. Patterson*
- \***Precision Agriculture Update: Variable Rate Technologies**  
*S. H. Norwood and A. T. Winstead*
- \***Late May/Early June Insect Update:** *R. Smith*
- \***Considering Late Planting:** *B. Goodman and D. Delaney*
- \***2008 Cotton Calendar:** *D. Monks*



#### \***Cotton Growth Early This Spring.** *D. Monks, Extension Agronomist*

The cotton spring we are currently experiencing has been a little odd, considering the past few years. While we have experienced a couple of drought years recently, this planting season has shaped up much better with more moisture. Today (Thursday, May 15, 2008) has seen widespread rainfall pretty much all day over most of the state (with the exception of the Wiregrass) without a lot of severe weather. Along with the rainfall this season, we are experiencing some later than usual cool night temperatures. The overall DD60 average has not varied a great deal from the long-term averages but there have been some cold snaps that have been imbedded in the season so far. I'm not sure which one was considered "blackberry winter" like we had back home in Tennessee. The cold snaps delayed some of our producers from planting and have certainly affected the crop's early development in the field.

In central and southern counties, we have seen cotton emerge quickly in many fields, only to exhibit slow growth and delayed emergence of the first true leaf. A friend of mine in the Selma area told me that there is an old saying about not planting cotton until the whippoorwills start calling at night. He was about two weeks early on his planting, according to his whippoorwills and his crop was showing signs of it. While this has been overcome with sunshine, the slow growth can set the crop up for increased incidence of

seedling disease, nematode damage, and even slug damage. It remains to be seen what effect this may have later in the season.



**\*North Alabama Cotton Update: Cotton's Sudden Decline in North Alabama.** C. Burmester, *Extension Agronomist*

According to reports from seed dealers, cotton acreage in northern Alabama will be well below 100,000 acres this season. In fact it may be in the 70,000 to 80,000 range even including the acreage right across the state line into Tennessee. Considering that just a few years ago, Limestone County alone had over 70,000 acres of cotton shows what dramatic changes are occurring in the farming community in Northern Alabama. For the first time since the early 1980's soybean acreage in Alabama will be greater than cotton.

What caused these changes include two terrible cotton crops due to drought and the high fixed costs of dry land cotton production due to high technology and seed costs. Recent record high prices for grain crops of wheat, corn and soybeans coupled with their lower production costs made changing from cotton an easy decision for most farmers.

Will cotton return to more normal acreage in the next few seasons? That is the big question cotton gins, cotton warehouses, equipment dealers, and all agriculture suppliers are asking. Cotton depends on this inter-related infrastructure and, if it closes down, it will be difficult for cotton acreage to return. Dry land cotton production in Alabama has always been risky with the large fluctuations in yields mainly dependent on July and August rainfall.

Presently, technology fees charged to Alabama cotton farmers are a fixed cost no matter what cotton yields are made. Unless cotton prices increase dramatically or technology companies realize they must share some of the risk during drought seasons, things do not look good for cotton's return. Hopefully, 2008 will be a wake-up call for many in the cotton industry that the whole fee system charged for cotton technology needs adjusting, especially for dry land cotton farmers.



**\*Insect Situation Report: Vegetable Weevil Found Attacking Seedling Cotton.** T. Reed, B. Freeman, and R. Smith, *Extension Entomologists*

The vegetable weevil (*Listroderes* spp.) was found damaging cotyledon stage cotton the first week of May near Leighton in Colbert County. The vegetable weevil is an invasive species that was introduced into the U.S. from South America and was first reported in the U.S. in 1922. Identification was confirmed by Dr. Charles Ray. The vegetable weevil feeds on a wide range of cultivated crops including turnip, carrot, collard, mustard, tomato, potato, tobacco as well as a number of weeds. The adult female is about 6.4 mm long and has a light V-shaped mark on the wing covers. The

larval and adult stage can attack plant foliage and roots. There are two species of vegetable weevil.

The adult weevils were observed chewing on the cotton plant stem just below the cotyledons. In some cases they chewed completely through the stem and in other cases they only ate partially through the stem. In both cases the plant died. Weevils were also observed on the cotyledons and they appeared to be chewing holes in the cotyledons. Damage caused by this pest could be easily mistaken for cut worm damage. The weevils in some locations were on the soil surface or on the plants feeding. They could also be found by digging up the soil around the plants. Many of the weevils were dead and their abdominal contents appeared to be eaten by fire ants. Wolf spiders were active in the field and although none were observed feeding on the weevils, they may be predators of this pest. Dead weevils found may have been killed by the cut worm rate of pyrethroid insecticide that was applied at planting or by the neonicotinoid insecticide seed-treatment used - but at this point this is speculation. Damage was less than 5% and no insecticide treatment was required. A light "worm rate" of a pyrethroid would be his first choice for control of this pest.



#### **\*Herbicide Resistant Pigweed in Alabama?**

*M. Patterson, Extension Weed Scientist*

Pigweed seed from three locations in South Alabama were collected in 2007 from fields where pigweed was not effectively controlled by glyphosate (Roundup, etc.) applications. Fields infested with pigweed in Barbour, Houston, and Baldwin counties where Roundup Ready cotton or soybean were grown were sprayed with glyphosate and emerged pigweed in these fields was not controlled. Anika Folgert, a graduate student working for Dr. Andrew Price, USDA Weed Scientist, is growing some of these seed out into plants in the greenhouse this spring. Once the pigweed have reached a specific size, usually 2 to 3 inches tall, glyphosate at increasing rates will be sprayed over-the-top of the plants. There will be several replications of each rate and the study will be repeated. Hopefully by mid-summer we will know if these seeds were produced by a pigweed population resistant to glyphosate. A biotype of Palmer pigweed, *Amaranthus palmeri*, resistant to glyphosate was found in a South Georgia cotton field in the summer of 2005. Since then this resistant biotype has spread to an estimated 500,000 acres in Georgia (Dr. Stanley Culpepper, Univ. of Georgia, Tifton). The resistance can be transferred through the pollen of resistant plants to susceptible plants, resulting in seeds that will produce resistant plants. We will not be able to stop the movement and spread of this pollen from glyphosate-resistant plants. Therefore, it is imperative that we use weed management programs that will provide control of this weed. Crop rotation, use of herbicides with different modes of action, and removing all pigweed from your fields before they make seed are the methods recommended by all weed scientists and numerous ag chemical companies and crop organizations like the National Cotton Council. Good information on managing herbicide resistance in cotton cropping systems can be found on the National Cotton Council website at

[www.cotton.org](http://www.cotton.org) and viewing the “weed resistance learning module”. Cotton Incorporated has a good paper on “Managing Herbicide Resistance in Cotton Cropping Systems” that can be downloaded and printed from their website at [www.cottoninc.com](http://www.cottoninc.com). Finally, a good paper on “Managing Herbicide-Resistant Weeds in Peanuts in the United States” can be found on The Peanut Grower website at [www.peanutgrower.com](http://www.peanutgrower.com). This paper can also be accessed at the North Carolina Cooperative Extension Service website at [www.ncsu.edu](http://www.ncsu.edu) as publication AG-692.



**\*Precision Agriculture Update: Variable Rate Technologies.**

*S. Norwood and A. Winstead, Multi-county Agents*

Technology has advanced to allow almost anything to be applied variable rate, from seed to irrigation to defoliant. There are several factors to consider if you want to make a variable rate application.

The first factor is what equipment will be used. There are three components of a variable rate system: the controller (tells the hydraulics what rate to apply), GPS (tells the controller where it is, so it can determine appropriate rate), and the hydraulics (what does the physical work of changing the rate). These components vary in cost and complexity depending on what product you are applying. Many of the components can be used for VRA of multiple products. For example, the same controller and GPS could be used for variable rate application of fertilizer and defoliant.

The second factor is how will the variable rate application prescription be created? There are a number of agricultural GIS (geographic information software) packages that write prescriptions. A prescription map indicates what rates should be applied at each location within the field. It could be as simple as a higher seeding rate under an irrigation pivot compared to out of the pivot. Your software will need to be compatible with the controller that you select. What will be the basis for your variable rate prescription map? Some examples are: using soil maps, yield map history, and on-the-go data collection, such as with the Greenseeker™.

Another question is how to evaluate the success of your variable rate application? Yield monitoring, with GPS, is an effective way to measure the economic impact of your VRA. Using a GIS package (examples: EasiSuite, SMS, Apex, FarmSite, etc), the yield map can be laid over the application map. The software package can then analyze the data to determine the average yield for each rate applied, determine the yield of any specific area within the field, tell you how much product the highest yielding areas received, and most importantly, create a profit map that shows your returns at each location within the field.



**\*Late May/Early June Insect Update.** *R. Smith, Extension Entomologist*

By late May, we should find most of our seedling cotton insects such as thrips behind us. Also, the early season sporadic insects that have occurred in 2008, such as vegetable weevils, grasshoppers, three corner alfalfa hoppers, cut worms, true armyworms, and false chinch bugs should be beyond the damaging period. As we move into June and as cotton approaches pinhead square, we should be shifting our attention to plant bugs and % square set. A somewhat different spring weather pattern in 2008 may mean that plant bug movement into cotton is also different than in 2005 and 2006. The impact of drought and/or rainfall on wild host plants along field borders and roadsides will influence plant bug levels and movement into cotton. The stage that cotton is in when migrating adults enter fields can also influence the level of damage.

In general, I feel that our cotton statewide was 7-14 days later being planted in 2008. If this carries over and results in a similar delay in fruiting, it could mean that migrating adult plant bugs will be entering fields to find cotton still pre-square or just at first square set. Cotton is somewhat more sensitive to plant bug injury when at this stage. Another possible influence of rainfall patterns and plant bug movement from wild host to cotton is that, in dry springs, most of the movement occurs in a short window. However in 2008, we may see a long and more limited movement that will begin in late May and extend over into July. These are the things entomologists, Extension agents, and consultants will be noting in the coming weeks. Regardless of the conditions we would like to see 80+ % retention of the pinhead squares during the pre-bloom window.



**\*Market Report: Considering Late Planting.** *B. Goodman, Extension Economist, and D. Delaney, Extension Agronomist*

There is still a big planting decision to be made by farmers in the southern half of the state this year, and that is whether to plant beans or cotton in late June or early July, following wheat. Since you grow it by the acre, and sell it by the pound, it all depends on costs and yields. It might be more profitable to grow 80 cent cotton over \$13 soybeans if you can't make a good bean yield.

Dennis Delaney, Extension Soybean and Conservation Tillage Agronomist, was just in here in my office, and we just did a little brainstorming. First, we estimated that you would have \$200 in beans and \$400 in the cotton, more or less. These are round numbers and if you wanted to run these numbers for your farm you might want to put a finer point on that pencil, but I think we are in the ballpark.

Next, we kicked around what the yields for double crop cotton and beans – planted as soon as possible after wheat harvest - would be for central Alabama. We figured in a “normal” year, we could make 600 pounds of cotton lint or 30 bushels of beans. If it

were a “bad” year, it would be 400 pounds of cotton and 12 bushels of beans, and 800 pounds and 45 bushels for a “good” year.

Next we guessed at the price outlook. I figure there is a 50:50 chance that the prices we have on the board right now will be what we see this fall. On beans right now, AFC is offering 75 under Nov futures (about \$13.33 right now), or you could go with a \$10 “Put option” for 25 cents. Either way it looks like a good time to me to lock this in. The only advantage of the Put is that if you have that “bad” year in the field and on the market, you don’t end up buying high beans to put on a cheap contract. But I think the chances of that are pretty slim anyway.

On the cotton side, the supply and demand situation has turned a little bullish with the latest reports from USDA, but there is still very little upside potential in my opinion. On the other hand, I don’t see much on the downside either, unless the economy tanks from high oil prices. Right now December futures are hovering around 80 cents. We might see 85, might see 70, but probably not. I don’t think anything outside that range is even a remote possibility. Even if you pool your cotton, these prices affect what the co-op can get for your crop, and in turn what they can pay you, so I think it’s pretty safe to use these numbers for comparison.

So here is how the numbers shake out. First, we have to assume that it isn’t possible to have a “bad” year, weather-wise for one crop, and a “good” year for the other. That seems to me to be a reasonable assumption. So, if we have a “bad” year for both beans and cotton you figure to make about \$34 more per acre profit (actually, you lose \$35 per acre less) with beans than with cotton. In an “average” year, you are going to make about \$100 more per acre on beans, and in a “good” year about \$130 per acre more.

On the price side, however, the picture is not that clear unless you take advantage of the price now being offered for beans. If soybean price this fall is low and cotton price at the high end of our range, it is possible to make more growing cotton. For example, using my figures if cotton is 80 cents this fall and beans are \$10, you would make \$20 more with cotton. But you have to consider also that if the reverse occurs, if beans are high and cotton is cheap, you could clear over \$150 more per acre with beans. That’s in a bad year.

In a “good” year, the numbers are larger because yields are higher. With high bean prices and low cotton prices you could net nearly \$300 per acre more with beans. With low bean prices and high cotton price, in a “good” year, you make \$30 more per acre with cotton. Of course you have to give probabilities to these prices yourself. I can’t begin to guess what the likelihood of 80 cent cotton or \$14 soybeans is.

Over all the scenarios we considered, Dennis and I believe that on average, with the yield and prices we used, you would be \$87.67 better off with beans. That’s the bottom line.



**\*2008 Cotton Calendar.** *D. Monks, Extension Cotton Agronomist*

<b>Date</b>	<b>Event</b>	<b>Contact Person</b>
June 10	Cotton Scout School Autaugaville Co. Agric. Center	Leonard Kuykendall
June 11	Cotton Scout School Wiregrass Res. & Ext. Center, Headland	W. Birdsong, B. Dillard
June 18	Cotton Scout School Tenn. Valley Res. & Ext. Center, Belle Mina	Tim Reed, E. Schavey
July 10	Precision Agric. Field Day Isbell Farms, Colbert Co.	S. Norwood, A. Winstead
Aug 9-11	ALFA Commodity Tour and Conf., Mobile	ALFA

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- All insect training events will begin at 8:30 AM. No pre-registration is required and no registration fee will be charged.
  - More information is available on the Precision Ag Field Day through the ACES Precision Agriculture Program at 256-353-8702 ext. 26 or 28.

There are two websites that you may be interested in visiting:

Weekly crop updates: [www.nass.usda.gov/weather/cpcurr/al-crop-weather](http://www.nass.usda.gov/weather/cpcurr/al-crop-weather)

Alabama cotton information: [www.alabamacotton.com](http://www.alabamacotton.com)



\*Reference Number: **PSK-5-08**, 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.

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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.

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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.

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**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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