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LSU AgCenter Cotton Extension

Louisiana Cotton Bulletin

Louisiana Cotton—First Forty Days Report Card-Sandy Stewart, Ph.D.

Forty days ago was May 4. Much of the 2008 Louisiana cotton crop was planted around that time or a little before. Now seems to be a good time to look back and assess the condition of the cotton crop and highlight some observations of things that went right and some areas for improvement.

Prior to the 2008 Beltwide Cotton Conferences, a publication titled "*The First Forty Days: The Most Critical Period in Cotton Production*" was published. The work was the collective agreement of over 65 cotton experts from around the country. These experts represented every discipline and geography and came from the university and consultant ranks. *The First*

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National Cotton Council Conducting Farm Bill Informational Meetings June 18 and 19

National Cotton Council staff will review key provisions of the new Food, Conservation and Energy Act of 2008 in 45 informational meetings across the Cotton Belt during the weeks of June 16 and June 23. The meetings are being sponsored by the NCC and area interest organizations.

Being conducted as a service to NCC members, the presentations are aimed at providing the best available information on the new farm bill and will conclude with a question and answer period.

Other industry, media and agribusiness representatives also are invited to attend.

"All NCC members should try to attend one of these meetings," NCC Chairman Larry McClendon said. "I believe others involved in the cotton industry and agriculture also can benefit from attending these informational sessions."

The schedule of meetings in Louisiana is as follows:

June 18, 3 pm—Alexandria, Dean Lee Research Station DeWitt Livestock Facility

June 19, 10 am—Rayville, Civic Center

Inside this issue:

Upcoming Dates:

NCC Farm Bill Meeting, Alexandria—June 18

NCC Farm Bill Meeting, Rayville—June 19

Northeast Research Station Field Day, St. Joseph—June 24

First Forty Days Report Card (cont'd from Page 1)

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Forty Days outlines Best Management Practices (BMPs) agreed upon in a series of workshops to represent a sort of blueprint for cotton production.

To assess the first forty days of the 2008 Louisiana cotton crop, some of these BMPs are graded below. Hopefully, this will help in understanding the crop we have now as well as developing strategies for management in the future. These grades are purely subjective and represent the opinion of one person. As expected, individual fields vary in their overall status and management. With that stated, hopefully you will find something useful to your situation and cotton management system.

First Forty Days Best Management Practice (BMP)	Grade
BMP: ***Plant more than one variety; consider specific traits and crop maturity after yield and quality.*** Louisiana producers seem to have distributed acreage over a larger number varieties in 2008 than in previous years. Part of this can be explained by the lack of re-registration of Bollgard technology beginning in 2010. Knowing that DP 555 BG/RR will no longer be an option in a couple of years, growers have planted some acreage to newer varieties, particularly those with Roundup Ready Flex technology. While a replacement for DP 555 has not been identified yet, a lot of varieties are getting a close look.	**A**
BMP: ***Plant uniformly spaced seeds (drilled or hill-drop pattern) with good seed-to-soil contact, warm soil temperatures of at least 65 F, and adequate soil moisture.*** Plant populations in most fields across the state appear to be at adequate levels. As in every year, some replanting has occurred, but not been widespread. This BMP would receive a higher grade were it not for the cotton planted in unusually cool conditions. Some cotton was planted in early April when soil temps were very low. Some of this cotton was planted again in late April. Chilling injury can also be sub-lethal and damage taproot development. In some fields, this is the case and overall stress tolerance is probably reduced.	**B**
BMP: ***For cotton that must be planted in cooler (< 65º F) soil, or when the five-day forecast is for cool weather with a high probability of rain, apply an in-furrow fungicide with active ingredients against both Pythium spp. and Rhizoctonia solani.*** Almost all Louisiana cotton has been planted with some kind of fungicide seed treatment, whether it be part of the Avicta Complete Cotton or Aeris seed treatments, or some component of the two. Early planted cotton emerged in challenging conditions and some stand loss would have occurred were it not for the fungicide seed treatments. The amount of seedling disease protection needed is basically a function of how quickly cotton emerges and grows off. Even with the seed treatment fungicides, seedling disease has exacted some toll due to prolonged cool weather, as it does in most years.	**B**
BMP: ***Choose an at-planting systemic insecticide capable of providing long residual efficacy, based on the field/farm history and experience of the pest manager.*** As with the fungicides seed treatments, almost all Louisiana cotton has been planted with an insecticide seed treatment or Temik. In some cases both a seed treatment insecticide and Temik were used. The residual control of various at-planting insecticides ranges from as few as 14 days to a possibility of 5 weeks for the granular. Thrips pressure could be categorized as moderate to heavy depending on the field. Due to the cool conditions in late April and early May, many fields have exhibited some evidence of thrips damage and some have been treated with a foliar insecticide. As with the fungicides, the amount of protection needed is a function of the how quickly cotton emerges and grows off.	**B-**

First Forty Days Report Card (cont'd from Page 2)

First Forty Days Best Management Practice (BMP)	Grade
BMP: ***Recognize the residual limitations of insecticides. Scout and overspray as required, ensuring insect control through The First Forty Days – especially during periods of cool temperatures or extremely dry conditions.*** The entomologists have stated many times that seedling cotton should be sprayed to control thrips only when damage is evident and immatures are present in the field. Growers and consultants have done a good job of recognizing those situations where treatment is warranted and those that are not. With the cool weather and some thrips damage evident in most fields, this has not been an easy task.	**A-**
BMP: ***Maintain a totally weed-free crop, using all available tools — including residual herbicides, glyphosate, herbicides with modes of action different from glyphosate, and herbicide-tolerant traits — to minimize competition, improve yield, and preserve quality.*** Early weed control in Louisiana ranged from table top clean to a grown up mess. Minimizing early weed competition is vitally important for preserving yield. While we can clean up fields in a Roundup Ready Flex system, we need to do a better job of starting clean and avoid having to make applications that are close to being salvage treatments each time. This BMP is one that needs improvement.	**C**
BMP: ***Prevent the onset of resistance or manage resistance by not relying primarily on glyphosate or ALS-inhibiting herbicides for cotton weed control. Use residual herbicides to reduce the pressure on glyphosate performance and prevent weeds from producing seed that will contribute to the soil seed bank.*** Herbicide resistance is a real and pressing issue. The use of metolachlor over-the-top in Louisiana cotton is widespread which is a good thing. However, there are other options. It is apparent now that there are many fields in Louisiana that could have benefitted from a PRE application of a residual herbicide. The use of PREs, however, remains low. In 2009, more growers should consider the opportunities and advantages of a PRE as part of a weed management and herbicide resistance management program.	**C+**
Overall Assessment. The 2008 Louisiana cotton crop is off to decent start. It has been frustratingly slow at times, but producers have overcome many of these challenges. For the most part, the *First Forty Days* thresholds have been crossed and a good yield potential has been preserved.	**A-**

Do You Have Resistant Weeds—Part Two -Daniel Stephenson, Ph.D.

In the previous part of this article, I discussed factors that may cause the failure of a herbicide to control weeds. If you have determined that none of the items listed in part one of the article explain the lack of control, then the following factors may indicate possible weed resistance. Determine if the following factors apply to your situation.

- The field or area with problem weed(s) has been sprayed repeatedly with the same herbicide (for example, Roundup, Touchdown, or a generic) or mode of action (for example,

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Do You Have Resistant Weeds? (cont'd from Page 3)

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ALS-inhibitors such as Staple XL, Envoke, Classic, Pursuit), AND

- The patch of weeds occurs in the same spot year after year and is spreading.
- Other weed species are controlled, but one particular weed species is no longer controlled, AND
- Surviving plants of the problem weed species may be in a patch where some are dead and/or some show variable injury symptoms, but all are approximately the same age as those that were treated and controlled.

Clumps, or patches of surviving weeds in a field.

Once you have determined that you may have a problem with possible resistance, you should call your county agent and LSU AgCenter weed science personnel so that we can begin steps to determine if resistance is present. LSU AgCenter weed science personnel names and numbers are as follows:

Dr. Jim Griffin	(225) 578-1768
Dr. Donnie Miller	(318) 766-3769
Dr. Dearl Sanders	(225) 683-5848
Dr. Daniel Stephenson	(318) 473-6590
Dr. Ron Strahan	(225) 578-2392
Dr. Eric Webster	(225) 578-5976
Dr. Bill Williams	(318) 766-3769
Dr. Sandy Stewart	(318) 473-6522

Dead weeds next to surviving plants following a herbicide application.

Considering the resistant situation facing some producers, an escaped weed may not be cause for alarm, but should be a reason for concern. To quote Ken Smith, an extension weed scientist with the University of Arkansas, "Clean fields do not produce resistant weeds." Let's keep them clean!

Northeast Research Station Field Day Set for June 24

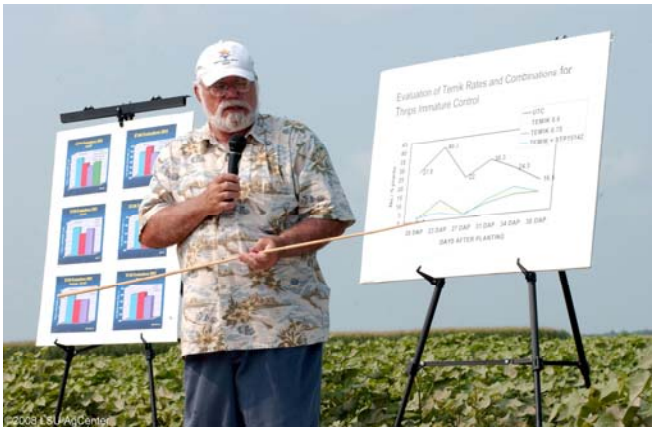
The LSU AgCenter's Northeast Research Station annual field day will be held June 24 at the station in St. Joseph.

Registration begins at 7:30 a.m., with the program starting at 8 a.m.

The event will highlight agronomic and pest management research with cotton, soybean, corn and rice on Sharkey clay and silt loam soils.

Topics for the field tours include:

- Cotton nitrogen and phosphorus fertility.
- Double cropping wheat and grain sorghum.
- Cotton varietal tolerance to reniform nematode and management.
- Insect pest management in soybean and cotton.
- Displays of equipment for variable-rate applications of soil-applied nematicides and fungicides.
- Herbicide resistance issues.
- Fall/winter/summer weed management in cotton and soybean.
- Weed management in corn and rice.



Field tour speakers will include scientists from several departments and research stations of the LSU AgCenter. In addition, several LSU AgCenter administrators will provide updates on programs of interest to producers, consultants and agribusinesses in Northeast Louisiana.

Directions to the station from the intersection of highways 65 and 128: Take Highway 128 to downtown St. Joseph. At the post office, turn left and go three miles on Highway 605 north. The station is on the left.

For more information, contact Dr. Donnie Miller at (318) 766-3769, or dmiller@agcenter.lsu.edu

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