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Cotton Update

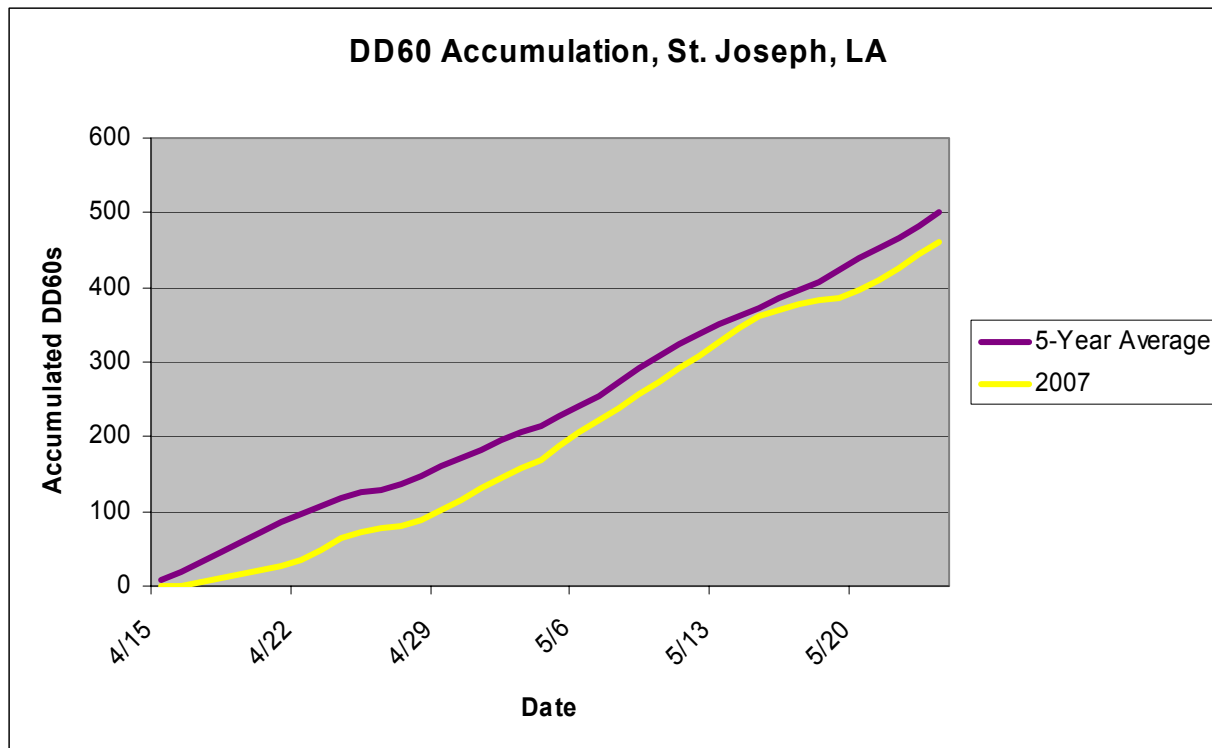
Sandy Stewart, Ph.D.

With a few exceptions the 2007 Louisiana cotton crop has been planted. For the most part, it has been a good beginning to the season. There have been scattered issues of seedling disease, hail damage, and thrips pressure, but overall planting has gone smoothly and early season growth is acceptable. Temperatures since planting have been relatively mild; therefore early growth has been acceptable but not spectacular (see below).

Louisiana cotton acreage in 2007 will be one of the lowest on record. Acreage numbers are still guesses at this point; however, it appears that the final number will be close to 300,000 and could very well be less than that. Whatever that number is, it will be one of the lowest, if not the lowest, since records began to be kept in 1866. This trend is similar to other southern states, although Louisiana appears to be losing more cotton acres on a percentage basis than any other. Many of our rural communities are built on agriculture in general and cotton specifically. The effect of this kind of acreage reduction on the cotton infrastructure and supporting industries is beyond the scope of this column but will be significant.

As stated above, temperatures have been mild since planting began. An examination of the accumulated DD60s since April 15 reveals that we are running about 40 DD60s behind a 5-year average (see graph below). At times the difference has been greater. Cotton requires between 350 and 450 DD60s to reach pinhead square, if we assume the first square to be on node 5 or 6. Many fields have plants that are at 5-7 nodes but have

taken almost 40 days to reach that point. While this situation should not be considered an extremely slow start, there are some implications that need to be considered.



In recent days, many producers have remarked that cotton is growing slow or has a “thrippy” appearance with ragged leaves and shorter plants. While there may be thrips present in some fields, the ragged appearance of the plants is due in part to mild temperatures which leads to slow growth. Additionally, recently planted cotton (cotyledon to 1-leaf stage) has emerged during a time period in which nighttime lows were below 60 degrees. This has led to slow growth and some seedling disease incidence. The level of seedling disease (and thrips) protection needed is a function of how quickly plants emerge and grow off. With warmer temperatures and sunlight, plants should rapidly outgrow thrips and seedling disease pressure.

So, is the crop “on time?” The answer to that is probably a yes. However, it will be worthwhile to remember the recent 5-day span from May 16 through May 21 in which nighttime lows were at or below 60 degrees. Cool nights below 60° F can affect plants by moving the node of the first fruiting branch 1-3 nodes higher on the plant. Time will tell whether this scenario will play out. However, it is a distinct possibility and early season management may need to be adjusted accordingly.

Spider Mites

Ralph Bagwell, Ph.D.

Several areas are beginning to report treatable infestations of spider mites on seedling cotton. The most significant infestations are near the Mississippi River levy in Madison and Tensas parishes. Infestations are in most cases not severe enough to require whole field treatment. In one case, however, spot replanting was required after spider mites killed isolated areas of cotton.

Rainfall last week appears to have helped reduce spider mite densities, even though it was only a few tenths of an inch. Leaf damage from spider mites was very apparent in fields with spider mites, but very few adult spider mites were found. This reprieve, however, is likely to be short-lived because spider mite eggs were present on most plants checked. I anticipate that these fields could have treatable infestations this week.

A surprising issue with spider mite control has been the differences in miticide efficacy during the pre-bloom and blooming stages. Many of the "old standards" for spider mite control have not provided acceptable control of pre-bloom spider mite populations. Thus, the list of recommended insecticides for spider mite control on pre-bloom cotton is very limited (Table 1). Pre-bloom use of a non-recommended miticide is highly discouraged.

Table 1. LSU AgCenter Recommended Miticides for Pre-Bloom Cotton.

Insecticide	Rate		
	Oz. Pr./A	Lbs(AI)/A	Acres/Gal or Lb
abamectin (0.15)	4 - 6 oz.	0.0047 - 0.007	32 - 21.33
Fujimite (5)	16.0 oz.	0.625	8
Zeal (72)	1.0 oz.	0.045	16
Zephyr (0.15)	4 - 6 oz.	0.0047 - 0.007	32 - 21.33

Another issue with spider mites is that control can be extremely expensive. This is very true for the recommended miticides. Please note that one or two of these recommended insecticides have a considerable performance guarantee. This guarantee helps make the control cost a little more acceptable. Discuss these miticide options with your retailer before selecting a control option.

Previous experience suggests that if you have a field with spider mites, the field eventually require treatment. There are a few management options, however, that will help to reduce the severity of an infestation and reduce the chance that spider mites will spread to additional fields. Initial spider mite infestations are usually found in isolated areas near borders. Spot spraying of these areas is a potential option that may help to prolong the period before whole field treatment is needed.

Insecticide applications for other insect can often flare spider mites. Although we often think of spider mites being flared with applications of acephate or cypermethrin (Ammono),

almost all other insecticides can flare spider mites. Acephate and cypermethrin flare mites by increasing mite reproduction. Other insecticides flare mites by disrupting natural control mechanisms. This includes all the insecticides recommended for thrips control. Thus, any insecticide application increases the risk of a spider mite outbreak when mites are present.

Spider mites are often spread from field to field on equipment. This is noted by mite infestations beginning on the first set of rows where equipment usually enters a field. Washing equipment after use in spider mite infested fields will help to slow infestation of new fields by spider mites.

When treating for pre-bloom spider mites, use a recommended miticide. Application of other miticides often leads to population resurgence. Thus, the total cost of control with non-recommended miticides is often higher than that of a recommended miticide. Thus, spider mites are usually best managed by “swinging the biggest hammer” type approach. The cheapest options for spider mite control have often ended up being the most expensive in recent years because of resurgence and repeated applications.

DATES TO REMEMBER

June 13 – Northeast Research Station Field Day, St Joseph. Begins at 7:30 am with field tours and lunch to follow. Contact Dr. Donnie Miller at (318) 766-3769 or dmiller@agcenter.lsu.edu for more information.

August 23 – Dean Lee Research Station Field Day, Alexandria. Begins with registration at 3:30 with field tours and supper to follow. Contact Dr. John Barnett at (318) 427-4424 or jbarnett@agcenter.lsu.edu for more information.

Below is a list of contacts, both agents and specialists, in Louisiana cotton-producing parishes. They are ready and willing to assist you in any way they can.

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