UNIVERSITY OF GEORGIA EXTENSION

UGA Cotton Team Newsletter
June, 2018

Current Crop Condition (Whitaker and Freeman)

According to the June 4th 2018 USDA NASS Crop Progress Report, 72% of the estimated cotton acreage in Georgia has been planted. This is up slightly from lasts weeks 62% estimate and well below the five year average for this date of 84%.

Considerations for the Remainder of the Planting Season

(Freeman) This spring has been especially challenging for cotton planting in many parts of the state. Dry weather early in the planting window followed by continual rainfall in the second half of May have delayed planting of over one third of the 2018 crop into June. Although yields tend to decreases as we move into June, there is still potential for strong, profitable yields. Listed below are some tips for managing a late planted crop.

1. **Consider increasing seeding rates**. In late planting situations we want to shoot for a final plant stand of at least 2 plants/ft, so adjust seeding rates to aim for this desired plant population.
2. **Decrease any stresses**. If irrigation is available, irrigate to promote stand establishment, enhance fruit retention, and eliminate stress during periods of dry weather.
3. **PGR's**. Mepiquat products should be applied to prevent excessive vegetative growth, decrease boll rot, and enhance fruit retention of lower position bolls which promotes crop earliness.
4. **Varieties**. Varieties should be chosen on overall yield potential not maturity characteristics.
5. **Fertility**. Decrease N rates by 25%-30% to limit excessive vegetative growth. This should be done with at-plant N and sidedress N.

For additional information regarding management of late planted cotton, please refer to the following article: http://www.ugacotton.com/2018/05/when-it-rains-it-pours-managing-late-planting-dates-in-georgia-during-2018/

Cotton weed control (Culpepper)

Weather has certainly challenged the management program. The intense and often overwhelming rainfall in recent weeks has greatly limited our ability to be timely with weed management programs throughout Georgia. Below are a few discussion points to address common questions/concerns.

1. ***Preemergence (PRE) herbicides*** in 2018 have been priceless providing excellent early-season control. Even after Palmer amaranth eventually emergences through the PRE herbicides, its growth has been slowed providing a more timely first POST application.

For growers who removed the PRE from their system……..horrible decision. As we move into June, the PRE herbicide is just as important as ever because weeds emerge and grow more quickly in June and July than in April or May. As always, apply two active ingredients that are effective on Palmer amaranth and get the rates right for your soil type and production practice thereby avoiding cotton injury.

2. ***Postemergence (POST) herbicides*** are currently preforming exceptionally well in controlling emerged weeds; including Roundup and our labeled dicamba and 2,4-D products. It is worth mentioning that the performance of Liberty was hampered in late May because of consistently cloudy weather but since the sun has returned to South Georgia the herbicide is back to performing as expected and occasionally a little better than expected.

3. ***Pigweed is big*** in many fields so keep in mind a systems approach including sequential POST applications and a layby containing products like diuron offer the best opportunity for success. CRITICAL to success is the time interval between your two POST applications; intervals vary within a given technology. Go to gaweed.com to view cotton weed management programs and intervals between POST applications (or call your extension agent)…….if you are off a few days between sequential POST applications it could have dramatic consequences.

4. As mentioned above, herbicides are currently performing exceptionally well. Of course, that is good for weed control but it is not so great for cotton injury. UGA research has consistently shown most cotton postemergence ***herbicide mixtures can cause twice as much injury when applied in saturated soil conditions*** as compared to ideal soil conditions. Don't forget that research suggests that it is best to avoid herbicide damage to cotton past the 8-leaf stage if any way possible……yes, use the layby rig!!

Cotton Insects (Roberts)

The question has been asked if we should manage insects differently in late planted cotton. The answer is no, however we cannot afford to make any mistakes as mistakes will be costly. A late planted crop will have limited time to effectively bloom and set harvestable bolls. Cotton with a more extended effective bloom period may compensate and recover from some management mistakes (i.e. delays in maturity and/or lost fruiting positions). Scout closely, use thresholds, and make good decisions with insecticide selection and timeliness of application. It is likely that we will need to scout and manage June planted cotton until the end of September. A few specific points to consider for insect pest you will likely encounter:

1. ***Thrips*** are the most consistent and predictable insect pest of cotton. We are all familiar with the stunted growth and crinkled leaves associated with thrips feeding. Excessive thrips damage will delay maturity up to 7-10 days which is unacceptable on late planted cotton. Historically thrips infestations are low on June planted cotton. Cotton planted in June also has rapid seedling growth which allows the plant to better tolerate feeding. Don't assume thrips injury will be low in your fields as delays in maturity could have significant impact on yield potential.

2. ***Aphids*** will infest most cotton fields during June each year. Populations vary from year to year and even field to field. We normally see aphid populations crash in July due to a naturally occurring fungus. On late planted cotton aphids may infest cotton in the seedling stage. Stress from aphid feeding on seedlings will slow development (delay maturity) which may limit yield potential of late planted cotton.
3. ***Tarnished Plant Bug*** is a sporadic pest of cotton in Georgia. Plant bugs feed on small squares with needle-like mouthparts; damaged squares will be shed by the plant. Plant bugs can be sampled with sweep nets or drop cloths. Square retention should also be monitored. Our goal is to retain at least 80 percent of first position squares when entering bloom. Poor square retention will delay maturity and again have significant impact on yield potential of late planted cotton.
4. ***Corn Earworm*** typically first infest cotton in mid-July. Corn earworm completes a generation in about four weeks. In recent years there has been much discussion about corn earworm and erosion of efficacy with Bt cottons (this is especially true in the Mid-South and North Carolina. Three gene Bt cottons are commercially available and will provide additional protection compared with two gene Bt cottons. Bottom line is to scout and use thresholds and be timely with insecticides if needed regardless of technology used.
5. ***Stink bug*** infestations are typically higher in June planted cotton compared with April and early May planted cotton. Scout and use thresholds. Remember that the threshold is lower during the 3rd-5th week of bloom.

Planter Settings (Porter)

Proper planter settings are critical for acceptable stand establishment, this is especially critical during years with adverse conditions. Very wet or very dry soil has a major impact on crop emergence. Caution should be exercised when planting into very wet conditions. From the planter mechanical perspective depth and downforce are most critical. It is very important that you check that you are not placing the seeds any deeper than 1 inch. Set this mechanically based on the planter manual and then check it in the field for all row units. Sometimes you will find slight variability between rows. Downforce should be reduced in very wet conditions compared to what you normally use. The poundage should definitely be less than 100 lbs. Check this in the manual on which slot to select if you have a spring downforce system, or set it utilizing your compressor or monitor if you have a more advanced system. If you notice that your presswheels are leaving a trench or appear to be compacting the soil reduce the downforce. This will cause problems with emergence and can cause crusting issues. Studies performed at UGA have shown reductions of emergence of up to 50% for improper depth and downforce settings when compared to proper settings. These problems are magnified when soil conditions are too wet. Lack of stand early in the season or delayed emergence will lead to other issues later in the season, such as weed, pest, and disease problems. These problems are translated to yield reductions at the end of the year. Please contact your local UGA County Extension Agent if you have questions about your planter settings.

Fertility (Harris)

Replacing Nutrients Leached by May Rains

It seems like every time we get a lot of rain I hear people say "well, I guess I lost all my fertilizer". While nutrient leaching (nutrients dissolved in water moving downward out of the root zone of plants) is a legitimate concern, especially on our sandy Coastal Plain soils of South Georgia, this statement is not exactly true. First, not all fertilizer nutrients are mobile in soil. Phosphorous for example is usually considered immobile and most positively charged elements or cations, like calcium and magnesium adsorb to the cation exchange capacity of the soil and do not leach readily. Most micronutrients are held by organic matter and/or pH and do not move. Therefore, nitrogen, sulfur and boron are the most "mobile" in soil. Even then, they have to be in the right form, namely the negatively charged nitrate, sulfate or borate forms. By the way, this is why most soil testing labs like UGA do not routinely test for nitrogen, sulfur and boron in soils. They are considered "transient", i.e. they can be there one day and (after a big rain) not be there the next. Oh, and what about potassium? Potassium is more mobile than phosphorous but contrary to some current thinking, it is NOT as mobile as nitrogen, sulfur and boron.

So the next question is "how much fertilizer do I need to put back"? There is no easy answer to this question because it depends on which nutrient, which form of nutrient, how much you put out, what soil type (i.e. how sandy) how much rain you got etc. But let's for example take the case of cotton fertilized in South Georgia before the heavy rains in May this year. Hopefully most growers followed soil test recommendations and put about 30 pounds of nitrogen, 10 pounds of sulfur and the recommended P and K at planting. The P didn't move much at all, the K may have moved some but it is likely still where roots will get it eventually. So that leaves N and S. Even if you lost half of your N and S you would only have to replace 15 pounds of N and 5 pounds of S. This can easily be done at N sidedressing time between first square and first bloom. Boron can be foliar fed any time before first bloom. Our recommendation is for 0.5 lb B/a and can be tank mixed with herbicide or growth regulator sprays. Bottom line is look to maybe sidedress on the earlier side, replace about 10-20 lbs N/a and include S with your sidedress N.

Fertilizing Late or June Planted Cotton – Reduce N Rates

Due to the heavy late-May rains, a higher percentage of Georgia cotton is going to be planted late, in June, this year. The tendency is to think "hey its late, I need to rush this cotton so I am going to put higher rates of N out at planting". This is actually the opposite of what you should do! While it is always important to get off to a good start, if you get off to TOO good of a start with extra N at planting, you could interfere with the "vegetative/reproductive" balance and reduce yields. In other words, you want the plant to shift from vegetative ("growing stalk") to reproductive (flowering/fruiting) as quickly as possible (as early as 5 nodes) since there is not as much time to flower and put on fruit before frost.

So how much do I reduce my N rate by and when? On page 76 of the UGA Cotton Production guide, it is recommended to reduce your total N rate by 25-30% . It is not stated, but I would recommend taking some off of both preplant and sidedress applications if possible. So

instead of roughly 30 lb N/a at planting and 70 at sidedress for May planted cotton for a total of 100 lb N/a….consider 20 lb N/a at planting and 55 lb N/a sidedress for June planted cotton. If you put out 30 lb N/a in early May before the rains and don't plant until June, you still should have about 10-20 lb N/a available so could just plan on an early N sidedress.

Important Dates:

Scout Schools:

Tifton – June 11th – Tifton Campus Conference Center – RSVP Debbie Rutland (229) 386-3424

Midville – June 19th – Southeast Research and Education Center – RSVP Peyton Sapp (706) 554-2119

Field Days:

Midville – Southeast Research and Education Center – August 15th

For more information on any of the discussed topics please contact your local UGA Extension Agent.