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Considerations for the 2012 Planting Season (*Collins and Whitaker*)

As of April 22nd, approximately 12 percent of the 2012 Georgia cotton acreage has been planted according to the USDA NASS Crop Progress Report, putting Georgia slightly ahead of schedule compared to previous years. Cotton planting (especially dryland planting) was accelerated significantly over the past week, largely due to rainfall which occurred during the weekend of April 21st. Additionally, soil moisture in most of the state has been sufficient for planting this past week, a result of recent rains and cooler temperatures. However, as I write this on Friday, April 27th, it appears that warm temperatures will prevail over the next 10 days, (highs from the upper 80's to mid 90's, lows in the mid to upper 60's) with little chance for rain. Therefore, risk of cool soil temperatures impacting emergence will be low, however soil moisture may become insufficient for planting if warm/hot temperatures continue without additional rain.

Stand establishment issues experienced in 2011 are likely on most growers' minds as we progress into the 2012 season. This issue, along with warmer than normal soil temperatures, are likely the cause for plantings to be progressing more rapidly. The 2011 planting season definitely brought reality to the importance of seedling vigor and rate of emergence, proper seeding rate, planting depth, avoiding "dusting" into marginal moisture, and planting into sufficient soil moisture. Although there was nothing we could do about the soil moisture situation (or lack thereof) and excessively high soil temperatures last year, we did learn a lot about how seedling vigor interacts with the environment to establish a cotton stand.

First off, let's all hope that the 2011 planting difficulties will not be realized again in 2012, and they haven't thus far. The one thing that we tended to overlook about last year -is that 1 or 2 moderate-to-significant widespread rainfall events during mid- to late-May would have likely solved most of our problems, especially if we had begun the season with sufficient moisture.. At this point in time, we are still very early in the 2012 planting season, and there is little risk

associated with waiting on rain to plant dryland acres. Of course, the risk increases as temperatures increase and time elapses without rain, as we observed in 2011. Remember that poor and/or failed stands resulted from planting into soils with insufficient moisture or planting too deep (over 1 inch) in attempt to “chase” marginal soil moisture (especially if additional rainfall doesn’t occur quickly after planting, as suggested by our 10-day forecast).

All in all, most growers did everything right last year, and Mother Nature did not cooperate. Some growers that were lucky enough to receive a small rainfall, and planted very soon after, yet were still unable to establish an acceptable stand. Based on observations, this was likely due to very rapid depletion of soil moisture (which was also associated with very high soil surface temperatures). On the other hand there were cases where a grower planted very soon after a moderate rain, then received another small rain event after planting, and acceptable stands were achieved. For some, the worst scenario also occurred, where soil moisture remained insufficient throughout the entire planting window (which traditionally ends on June 15th) to establish an acceptable stand.

Besides the overall poor environmental conditions that a majority of the challenges experienced in 2011, there were some issues that affected stand establishment which to a particular variety’s seedling vigor. Stated simply, there were some cases where seedling vigor of varieties played a significant impact on the difference between replanting and obtaining a sufficient stand. This situation is likely to still be on growers’ minds and may play an impact on variety selection in 2012. **However, let’s be clear.....the emphasis of variety selection should still be primarily based on yield potential and stability, technology options, and special situations (yield limiting factors such as water or nematodes).** Seedling vigor should not be the primary emphasis of the variety decisions, but it is still important with regard to stand establishment. We have known that differences in seedling vigor exist between varieties, and in most years stand establishment is not affected by these differences. But in 2011 (one year out of many), stand establishment with varieties with relatively lower vigor can be difficult when soil moisture is exceptionally poor and soil temperatures are high. —Some, but few, varieties offer the best of both worlds (high yield potential, stable performance, and high vigor) and some, but definitely not all, of our highest yielding and most stable varieties could be considered smaller seeded or lower vigor varieties.

This DOES NOT mean that lower vigor varieties should not be planted, but rather it means that careful management (proper seeding rates and planting depths, and planting into adequate moisture) may be more important for these varieties especially in dryland conditions when rainfall is infrequent or soil moisture is marginal. Remember that DP 555 BR was generally much smaller seeded with lower vigor than most of our modern varieties, yet it was our predominate variety for many years in a row.

We have just begun the 2012 planting season, and waiting on sufficient moisture poses little risk at this point. This risk increases significantly as we approach the latter part of our normal planting window (June 1st – June 15th) without rainfall. Let’s all hope that more typical May rainfall will occur and stand establishment won’t be an issue.

Interval Between Applying Direx for Burndown and Planting Has Finally Changed for Georgia Growers (Culpepper)

For years, the single most common cotton question that I have been asked has been “why do we have to wait 15 days after applying Direx at burndown before we can plant cotton”. The answer was always simple “I have no idea but that is what the label says”. Well this week, because of tremendous support from Makhteshim-Agan (special thanks to James Whitehead), we have a new label allowing growers a 0 to 7 day plant back interval depending on production practices. All of the needed information is provided below for the 24(c) label.

DIREX® 4L HERBICIDE

EPA REG. NO. 66222-54

FOR CONTROL OF MANY ANNUAL AND PERENNIAL GRASSES AND HERBACEOUS WEEDS

EPA SLN NO. GA-120001

24 (c) SPECIAL LOCAL NEED

SHORTENED PRE-PLANT INTERVAL FOR USE ON COTTON

FOR DISTRIBUTION AND USE ONLY IN THE STATE OF GEORGIA

DIRECTIONS FOR USE

- It is a violation of Federal law to use this product in a manner inconsistent with its labeling.
- All applicable directions, restrictions, and precautions on the EPA registered label are to be followed.
- This labeling must be in the possession of the user at the time of pesticide application.
- **Expiration Date: December 31, 2012**

SHORTENED PRE-PLANT INTERVAL FOR COTTON

Apply Direx 4L at 0.5 to 1.0 quarts per acre. **If strip tillage has been done prior to the application, wait 7 days after application before planting. If strip tillage has been done after the application but before planting, no plant back interval is required.** Refer to the table below for use rates in preplant applications. Do not apply Direx in a preemergence application if it has been used in a preplant burndown application with this shortened plant back interval. Do not exceed suggested use rates for individual soil textures shown in the table below. If less than the maximum rate of application for a given soil is applied preplant, subsequent preemergence applications of Direx 4L may be made. However, the total combined application rate for Direx 4L applied preplant and preemergence may not exceed the maximum suggested use rate for either application method.

Direx 4L Alone

Soil Texture

Sandy Loam, Loam, Silt Loam, Silt
Sandy Clay Loam, Clay Loam, Silty Clay Loam, Sandy Clay
Silty Clay, Clay

Max Rate/Acre

0.8 quart
1.0 quart
1.0 quart

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24 (c) Registrant: Makhteshim-Agan of North America, Inc.
3120 Highwoods Blvd, Suite 100
Raleigh, NC 27604
Rev 3-27-12

Grasshoppers (Roberts)

Grasshopper problems are sporadic, isolated, and almost always are associated with reduced tillage fields. Grasshoppers also appear to be more problematic on lighter soils, often occurring on the same farm from year to year. Grasshopper damage is unpredictable, but can potentially threaten a stand. Grasshoppers may feed on foliage, but most economic damage occurs when grasshoppers feed on the main stem of emerging (in the crook stage, cracking) or small seedlings. Be sure to scout fields infested with grasshoppers as cotton begins to emerge. In some situations grasshoppers may completely sever the stem, but more often they will chew partially through the stem weakening the plant which often will fall over at the wound site. Grasshoppers overwinter in egg cases which were deposited in the soil last fall; this is why we typically see more problems in reduced tillage systems. In fields infested with grasshoppers, be sure to walk the entire field looking for emerging grasshoppers in the inner portions of the field away from the edges. If infestations are only observed on the field edges, potentially grasshoppers are migrating from other areas and infield border sprays may suffice. Immature or wingless grasshoppers are very susceptible to insecticides; however adults can be more difficult to control and high rates of insecticides labeled for grasshoppers should be used. In fields with historical problems with grasshoppers, Dimilin has proven to be a good management tool for grasshoppers. Dimilin is an insect growth regulator with extended residual that provides good control of immature grasshoppers. Dimilin will NOT control adult grasshoppers. Unfortunately we do not have thresholds for grasshoppers in cotton. Preventive insecticide applications are a judgment call. As cotton emerges treatment decisions should be based on seedling damage.

Thrips (Roberts)

Thrips populations are typically high on early planted cotton. Each year we plant a small area of very early cotton for use in our annual scouting school. Thrips populations were again high on this year's plantings and reports from other crops would indicate a similar trend.

At-plant systemic insecticides provide consistent yield responses and are used by most growers for early season thrips control. In-furrow applications or seed applied systemic insecticides are taken up by the plant as it germinates and develops providing protection during early growth stages. Supplemental foliar sprays may be needed if environmental conditions are not conducive for uptake of at-planting systemic insecticides or if heavy thrips infestations occur. Systemic foliar insecticides should be applied to cotton which had an at-plant systemic insecticide when 2-3 thrips per plant are counted and immatures are present. The presence of numerous immatures suggests that the at-plant systemic insecticide is no longer active. If no at-plant thrips insecticide is used, multiple well timed foliar applications will be needed.

The following factors related to thrips biology and ecology should be considered when planning thrips management programs:

- Thrips infestations are generally higher on April and early May planted cotton compared with later planting dates.

- Thrips infestations are lower in reduced tillage systems compared with conventionally tilled systems (winter cover crops should be killed at least 3 weeks prior to planting and no green vegetation should be present at planting).
- Seedling injury and potential yield impacts from thrips feeding are compounded by slow seedling growth due to cool temperatures or other plant stresses.
- A rapidly growing seedling can better tolerate thrips feeding.
- Seedlings become more tolerant of thrips feeding as they develop; small seedlings (<2-leaf) are more sensitive to thrips injury in terms of yield loss compared with 3-4 leaf seedlings.
- Slow growing seedlings will remain in the thrips “susceptible window” for a more extended time compared with a rapidly growing seedling; it is unlikely that seedlings which have reached the 4-leaf stage and are growing rapidly will benefit from supplemental foliar sprays.

Commercial seed treatments including imidacloprid or thiamethoxam provide similar levels of thrips control and are active on thrips for about 3 weeks after planting. Research and observation have shown that a supplemental foliar spray is often needed in addition to a commercial seed treatment when thrips infestations are high. We typically expect to see higher thrips infestations on early planted cotton in conventional tillage systems. Thus, **foliar thrips systemic insecticide should be applied at the 1-leaf stage in conventional tilled fields planted prior to May 10 when a commercial seed treatment is used.** In most situations this program will provide good thrips control, but the fields should be scouted regularly for thrips and injury following the foliar spray. In fields planted after May 10 or where reduced tillage is used, the risk of high thrips infestations is lower and an automatic foliar spray should not be applied; scout and treat when thresholds are exceeded.

Final Preparation for Diseases and Nematodes for Start of 2012 Season (Kemerait)

The 2012 cotton season is upon us, for some it began over the last couple of weeks. For management of nematodes and seedling diseases, growers must remember that most of the opportunity to limit the impact of these maladies on the crop ends when the furrow is closed. Here are my recommendations for this year.

Nematode Management

1. I expect nematodes to be a significant problem this year. The lack of cold temperatures this winter and an unusually warm spring lead to greater impact from our plant parasitic nematodes.
2. Growers should use the nematicides available to them to aide in the management of nematodes. While the supply of Telone II is reported to be low this year, I have not spoken with any grower who has wanted to use the product but not been able to get it. Obviously, the supply of Temik 15G is very tight this year; however growers can use seed treatment nematicides like AERIS Seed-Applied System and AVICTA Complete Cotton, coupled with Vydate C-LV in fields where nematode pressure is considered low-to-moderate.

Seedling Diseases

1. Planting in warm soils will greatly reduce the threat of seedling diseases this season. However, conditions of wet and cold that occurred briefly in mid-April were nearly perfect for the development of seedling diseases caused by *Rhizoctonia solani* and *Pythium* spp.
2. For most growers, the base fungicide seed treatment applied to cottonseeds is appropriate when planting into warm soils. Growers are most likely to find benefit from additional fungicide treatments, e.g., Dynasty CST and Trilex, when planting into cooler and wetter soils or when planting into fields where seedling diseases are historically a problem. When deciding whether or not to invest in an additional seed treatment for control of seedling diseases, the grower should weigh the potential for increased risk to seedling diseases versus the additional cost in buying the extra “insurance”.

Corynespora Leaf Spot (also: target spot)

1. By now most cotton growers in Georgia are aware that a “new” disease, Corynespora leaf spot or “target spot”, is a threat to the crop in the region. I absolutely do not want to over-emphasize the potential threat from target spot; however I am convinced that this disease will cause significant yield losses in some fields in 2012. If rainfall is more abundant than in 2011, the threat from target spot could increase significantly.
2. Cotton planted in southwestern Georgia is at added risk to target spot. The disease does occur elsewhere in the state, but is most severe to date in the areas of Georgia bordering on Alabama and Florida.
3. Target spot will be most severe in fields where cotton growth is dense and moisture and humidity are trapped within this foliage.
4. Target spot is likely to be more severe in fields where cotton is planted behind cotton; the spores of the fungus will survive between seasons in the crop debris.
5. The spores will be spread to the new crop as rain and irrigation splash the spores from the ground to the developing leaves.
6. The disease will be more severe when rainfall is abundant.
7. I believe that losses to target spot are at least 60 lb lint/A when the disease develops early enough and that losses of 120 lb lint/A are very possible. Losses of as much as a bale per acre have been reported by consultants but not verified in replicated studies.
8. It should be noted that although target spot may be found in a field, if conditions turn hot and dry, the disease is much less likely to cause damage to yield.
9. Fungicides that are currently labeled for management of target spot/Corynespora leaf spot include Headline, Twinline and Quadris. Tebuzol is not specifically labeled for management of this disease, but can be used in cotton in Georgia.
10. The optimum timing for an application of a fungicide to manage target spot remains to be determined; however I believe that growers should consider an application after first bloom (but before canopy closure to insure adequate protection of the lower leaves) coupled with conditions favorable for development of disease. Additionally, I strongly

recommend that growers work with their county agent or consultant to identify the disease in their fields; the presence of the target spot in a field is certainly something that the grower should take with caution.

Cotton Scout Schools: Tifton June 11, and Midville June 19, 2012 (Roberts)

Cotton insect scouting schools are annually held at various locations in Georgia. These programs offer general information on cotton insects and scouting procedures and will serve as a review for experienced scouts and producers and as an introduction to cotton insect monitoring for new scouts. The annual Cotton Scout School in Tifton will be held on June 11, 2012 at the UGA Tifton Campus Conference Center. The Midville Cotton Scout School will be held on June 19, 2011 at the Southeast Georgia Research and Education Center. The training programs at each location will begin at 9:00 a.m. and conclude at 12:30 p.m.

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Your local County Extension Agent is a source of more information on these subjects.

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