



Burke County Agricultural Newsletter



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Index

Herbicide Application Rates
Cotton PGR Regimes
Cotton Layby Options
Soybean Issues
Upcoming Events

Whoops, I Did It Again (Sprayed the Wrong Rate)! (Prostko)

Frequently telephone calls come in the Extension Office that have to do with herbicide application rates. Usually the following question is asked: What happens if a 2X rate was sprayed? Often sprayers are miscalculated which results in higher than normal application rates. It is important to keep in mind that in the early stages of an herbicide's development, one of the most important objectives is crop safety/tolerance.

Consequently, when a use rate is developed for a specific crop, there usually is a 1.5-2X safety factor built into that rate. If a 1.5-2X crop safety margin does not exist, then it would be very likely that the herbicide would not be registered for that crop (*FYI, that is one reason why Reflex will **NOT** be labeled for use in peanut*). Examples of data to support this are presented in Table 1.

Perhaps, the greatest concern for higher application rates is crop rotation effects. For example, it is probable that a 2X application rate of Cadre to peanut will not reduce yield but may dramatically increase the potential for cotton rotational problems. In fact, I would say it would be a very bad idea to plant cotton after a 2X rate of Cadre was applied to peanut! Additionally, a 2X labeled rate of any herbicide should not be needed to achieve optimum weed control results.

At this time of year things are extremely busy and the pace is fast. It is very, very easy to mess up! The best that we can do is to encourage you to slow down, **read the label**, and routinely calibrate field sprayers.

Table 1. Data examples where above-labeled herbicide rates were applied to peanut.

Herbicide	Rate Tested	Yield Effect	Source
Dual	2-4X (2-4 lb ai/A)	None	Peanut Science. 1988. 15:53-56
Pursuit	1.5X (0.094 lb ai/A)	None	Peanut Science. 1991. 18-26-30
Sonalan, Prowl	1.5-2X (1.5 lb ai/A)	None	Peanut Science. 2003. 30:34-37

Cotton Growth Management in 2010 (Whitaker & Collins)

The transition away from DP 555 BR has contributed to most likely one of the most diverse cotton crops Georgia has seen in several years, from a variety perspective. Now that the majority of this year’s crop is off and growing, the first applications of plant growth regulators (PGR’s) will soon follow. One of the most consistent characteristics of DP 555 BR is its vigorous vegetative growth and its ability to recover from dry spells and produce fruit later in the season. Research has shown that many of the new varieties have yield potentials which are equal to or greater than that of DP 555 BR, especially in irrigated environments. However, limited experience with some of these varieties in 2009 leads us to think that some of these varieties are somewhat earlier maturing than DP 555 BR, and tend to set more fruit lower in the plant canopy and retain these earlier-set fruit to a greater extent than DP 555 BR. Coupled with, or resulting from this tendency, many new varieties have shorter final plant heights and fewer main-stem nodes when grown under similar PGR regimes (Table 1). These observations indicate that some of the newer varieties may require less aggressive plant growth management.

Careful attention should be paid to vegetative growth or vigor and fruiting characteristics on a case-by-case basis when making PGR applications decisions. This is especially important when making early season PGR applications to newer varieties or in dryland environments. Utilizing lower PGR rates for applications made at early growth stages may reduce the risks of stunting growth and reducing yield potential. Extensive research is being conducted in 2010 at the Southeast Georgia Research and Education Center in Midville which will hopefully shed more light on this issue. The “flip side” is that some of the newer varieties, especially the later maturing ones, grew as aggressively as DP 555 BR last year with all the rain. Therefore, PGR decisions should be made on an individual field basis, and not on a broad or generalized basis.

When making these decisions, it is important to remember what PGR applications actually do. Mepiquat-containing PGR's suppress vegetative growth by reducing plant height and the total number of main-stem nodes, and shortening internode distances. The use of these products can also cause a shift in boll distribution, creating a more concentrated or compact fruiting zone, often on lower nodes of the plant. The improved retention of these earlier-set bolls often results in a heavier boll load which can also limit the photosynthetic resources available for further vegetative growth. Nevertheless, each decision should be made only after considering numerous factors including field history, variety, irrigation capability, timing of nitrogen applications, fruit load, etc.

Table 1. Final plant height and number of main-stem nodes of five cotton varieties. Data averaged across five locations in Georgia in 2009. Variety	Height	Total Main-stem nodes
DP 555 BR	46	26
PHY 375 WRF	42	22
DP 0935 B2RF	41	23
ST 5458 B2RF	40	22
FM 1740 B2RF	38	21

Layby Directed Herbicide Options for the Control of Glyphosate-Resistant Palmer amaranth

Regardless of cotton technology being grown, the most consistently effective options for the control of emerged Palmer amaranth include diuron (Direx, others) plus MSMA plus crop oil or Layby Pro plus MSMA plus crop oil. Diuron will likely provide a greater level of residual control when compared to Layby Pro. Cotton should be at least 12 inches in height prior to applying the diuron mixture and at least 16 inches in height before applying the Layby Pro mixture. With both of these herbicide applications, growers should target Palmer amaranth 3 inches in height or smaller. Valor plus MSMA is also a good option if Palmer amaranth is less than 2 inches in height. Valor offers the greatest level of residual control of any layby directed herbicide option assuming activation by rainfall or irrigation.

Early-Season Disease and Nematode Management for Georgia's Soybeans (Kemerait)

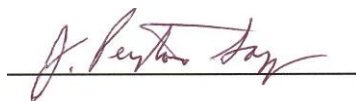
Asian soybean rust sentinel plots for monitoring the early development and spread of this disease have been planted in a number of locations across Georgia. **As of May 22, 2010 NO ASIAN SOYBEAN RUST is known to exist in Georgia** or in the southeastern United States. In addition to Asian soybean rust updates, we will include information about other diseases of soybeans in the email alerts sent to Extension Agents. Also, you can follow the progress of Asian soybean rust during the 2010 field season at the website www.sbrusa.net. The 2010 Asian Soybean Rust Sentinel Plot Monitoring program in Georgia is funded through generous grants from the Georgia Commodity Commission for Soybeans and the North Central States Soybean Research Program. These grants are used to pay the salaries for our scout team (Caleb Clements and Ross Fulghum) and diagnosticians (Lyn Paclibar Young, Jou Ouano Carter, and Jeanette Bayla Mixon).

Phomopsis pod and stem blight coupled with anthracnose were diseases of significant importance in some fields in 2009. These diseases can cause severe yield losses in some fields, especially in irrigated fields or where rainfall is abundant. The spores and propagules of these fungal pathogens will survive in the crop debris left in the fields and are readily spread through rainsplash. If you have a short soybean rotation or if you had problems with these diseases in 2009, you should watch your fields for early development this year. The late bloom (R2) to early pod formation (R3) growth stages tend to be appropriate times for applications of Dimilin and boron and also for fungicide applications, if in fact they are needed.

Nematodes are a problem to more soybean producers in Georgia than are the diseases mentioned above. The nematode that seems to cause the greatest damage in our state at this time is the southern root-knot nematode (*Meloidogyne incognita*) with additional damage caused by the reniform, Columbia lance, and peanut root-knot nematodes. Effective management of parasitic nematodes requires an integrated approach that incorporates crop rotation (away from soybeans, peanuts, and cotton), selection of resistant varieties, and use of a nematicide (e.g. Temik 15G, 6 lb/a).

UPCOMING EVENTS:

Cotton Scout School: Cotton insect scouting schools are annually held at various locations in Georgia. This year's Scout School at the Southeast Georgia Research and Education Center in **Midville will be held June 22**. 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 program will begin at 9:00 a.m. and conclude at 12:30 p.m. If you would like more information, contact us at the Burke County Extension Office at (706)554-2119.



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