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*Alabama Cooperative Extension System Announces Fourth Annual Precision Agriculture and Field Crops Conference: Shannon Huber Norwood, Amy Winstead

The Alabama Cooperative Extension System and cooperating partners will host the Fourth Annual Precision Agriculture and Field Crops Conference December 8, 2009 at the Wind Creek Hotel in Atmore, Alabama. The conference will begin with registration and equipment demonstrations at 8:00 AM with educational sessions beginning at 9:00 AM. The conference will conclude after lunch with additional afternoon workshops on managing and using precision ag data. A session is also being developed for livestock producers to address the use of precision agriculture in pasture management.

The conference will feature precision agriculture exhibits, equipment demonstrations and educational sessions. During the event, producers will have the opportunity to learn about a variety of precision agriculture topics including section control technology, economics of precision agriculture, soil fertility applications, and CORS for agriculture.

“We are very excited to bring our annual precision ag event to southwest Alabama and are looking forward to this year’s program”, says Shannon Norwood, Multi-County Extension Agent for the Alabama Cooperative Extension System and conference chair.
There are a lot of great farmers in southwest Alabama and the Florida panhandle and we look forward to visiting with them. Participating partners for the event include the Alabama Farmers Federation, Auburn University, University of Florida Extension, Alabama Natural Resource Conservation Service, Alabama Association of Conservation Districts, Alabama Agricultural Experiment Stations and USDA-ARS.

The conference is free and open to everyone. For more information visit the Precision Ag website at www.alabamaprecisionagonline.com or contact Shannon Norwood at 256-353-8702, ext. 28 or hubersr@aces.edu.

*Comparing “Late-season” to “Late-maturing” in 2009: D. Monks, Ext. Agronomist*

The crop across the state this year is shaping up very well if we have a warm finish to the production season. The cotton that was planted on time suffered through adverse conditions but is generally looking excellent in most areas. The fields I have visited and the reports we have now are for what could be a record-setting state yield average. The record crop was 795 lbs/acre in 1985 and we may come close to that this year. The USDA NASS has our predicted yield for this year at 794 lbs/acre but no cotton has been picked yet. The key to this is a warm, extended fall to allow the late-planted fields a chance to mature.

We have had some questions concerning late-season applications of growth regulators on cotton. While this is a labeled use for most of the PGR products, use in the state is varied since most of our crop is dryland and not irrigated. Our crop usually matures rapidly in the late summer due to typically dry, hot August and September weather. Final results with this approach can be variable and would likely depend heavily on the status of your crop and where you are in the state.

When evaluating cotton for PGR treatment at the end of a very late season, you have to first distinguish between “late-season” and “late-maturing”. In central and south Alabama, there is a wide range of maturity for the cotton in field-to-field comparisons. The cotton in many fields has a very good boll load and is at or very close to maturity. This cotton would likely not benefit from this type of treatment because of the demand that bolls place on the plant. On the other hand, “late-season” this year can be a much different issue since a fair number of acres were planted late. Late-planted, late-maturing cotton that has been blooming profusely over the past two to three weeks likely has a lot of horse-power left in the system with recently bloomed, immature fruit. Note that if cool conditions become the norm, cotton growth and maturity will slow significantly anyway. We urge you to continue to scout and evaluate late-maturing fields to ensure that we do not lose yield to late-emerging problems.

Dr. Phil Jost, former UGA cotton agronomist and current Phytogen Cotton Development Specialist, published an excellent bulletin on mepiquat chloride and its mode of action and uses at: http://pubs.caes.uga.edu/caespubs/pubs/PDF/B1305.pdf. The national
eXtension website also has information from several states covering PGR uses in cotton: [http://www.extension.org/pages/Cotton_Plant_Growth_Regulators](http://www.extension.org/pages/Cotton_Plant_Growth_Regulators).

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**North Alabama Insect Update: T. Reed, Extension Entomologist**

Probably the most significant late season insect problem in north Alabama is cotton bollworms infesting Bollgard1 cotton fields. Some cotton fields in the Tennessee Valley have already received two treatments for bollworms. Many of these worms and/or their damage are being found when bloom tags are removed from the end of bolls. Bollworms are also being found in open blooms. Farmers are using pyrethroid insecticides to combat this problem. I inspected a Franklin county cotton field late last week that had a spider mite infestation. Scouting indicated that the mites were in all parts of the field and about 5% of the field had suffered severe leaf loss. Mite numbers were low in these heavily damaged areas however, indicating something had reduced the population. Mite numbers were low to moderate in the rest of the field and the grower used a pyrethroid that has shown some efficacy against spider mites during the last two years. Inspection of two more near-by cotton fields showed there were very few spider mites present. Late-season stink bug and plant bug damage to bolls has probably been less this year than last year. Farmers who have questions about managing late-season insect pests of cotton can call me at 256-627-3450.

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**September Temperatures Could Have a Big Impact on North Alabama Cotton Crop: C. Burmester, Extension Agronomist**

Overall, the North Alabama cotton crop has fruited well this season and has avoided major insect problems. Heavy rains in May delayed planting or caused re-plantings in many areas. At this time there are a few dry areas, but the overall crop condition is good. The biggest concern is that the cotton crop is later than normal. If this was the 1st of August I would be very excited, however since it is late August, I must remain concerned. Normally the last boll we can mature in North Alabama is set between August 20th and the 1st of September. Generally the later bolls are set after the 20th of August, the poorer the chance of mature boll development. In many years, late September temperatures drop dramatically and cotton boll development is slowed. Looking back on the last several years, I found the DD60’s for September varied from 307 in 2002 to 404 DD60’s in 2007 at Belle Mina Alabama.

At this time, I know of no treatment to speed cotton boll maturity. At this stage we need to watch the crop closely to avoid any fruit shed due to insects. The better the fruit set the faster the cotton should reach cut-out and mature. The good news is that most cotton has a good to excellent fruit set and this should help us greatly. In the last two weeks I have seen several fields that have gone from averaging 6-7 nodes above white flower (NAWF) two weeks ago to averaging 3-4 NAWF this week. This cotton should mature and be ready to defoliate in late September.
The North Alabama cotton crop has excellent potential, but temperatures in September will determine how many late season bolls we will mature. The cotton planted in late May is the biggest concern. We will need high temperatures in the 80’s and low temperatures above 60 degrees through September to mature the later cotton.

*Late Season Insect Control: R. Smith, Extension Entomologist*

Cotton Insect control is winding down in many fields. However, late-planted or late-maturing fields must still be monitored for stinkbug damage. Stink bugs will continue to be a potential pest as long as young bolls, which we hope to harvest, are present and less than 25 days old. A boll is beyond stink bug damage when it is too hard to make an indentation on the outside with a thumb nail. The threshold for treating cotton for stink bugs should be about 30% internal boll damage when the cotton is in the 8th to 10th week of bloom. Late planted cotton should be treated using a 10% threshold until the 7th to 8th week of bloom.

Soybean loopers are beginning to show up in both cotton and soybeans in South Alabama. Velvetbean caterpillars, fall armyworms and green cloverworms are also in the foliage feeding mix on soybeans. It takes 5 to 8 days foliage feeding worms per foot to be a treatable level.

*Cotton Defoliation 2009: M. Patterson, Extension Weed Scientist*

It looks like 2009 may be a good year for cotton in Alabama. The crop overall has had sufficient water and many fields are primed for excellent yields. Hopefully weed control has been maintained and our cotton crop is clean now. After late-season insect control, the final step in production before harvest is cotton defoliation and/or boll opening. Harvest aid materials can take leaves off earlier, open bolls, and suppress new growth in late season to facilitate earlier harvest and obtain a clean, once-over harvest for optimum yields.

Some new products have been developed within the past few years that have been registered for cotton defoliation. Aim, Blizzard, ET, and Resource are herbicidal-based products that are all used at relatively low rates (0.6 to 8 fl. oz per acre, according to the product chosen) to take mature leaves off cotton that is 60 to 70 percent open. These materials do not open bolls or provide any regrowth suppression when used alone. They are fast acting and generally cost effective. A single application of any of these materials with one pint per acre crop oil concentrate (COC) will generally provide about 80 percent defoliation. Sequential applications 5 to 7 days apart will provide 95 percent or greater defoliation. In my opinion, the best way to use these products is in combination with ethephon, especially if a single application only will be made. This combination takes the leaves off and opens bolls, but doesn’t provide any regrowth suppression.
Regrowth suppression is important if you cannot harvest the crop within 10 days following application. On Roundup Ready or Roundup Ready Flex cotton, the only materials that provide significant re-growth suppression are those that contain thidiazuron as an active ingredient. These products include Dropp SC (and generic versions) and Ginstar and will usually suppress re-growth for up to three weeks if used at the appropriate rate. On conventional (non-transgenic) varieties, glyphosate (Roundup, etc.) can be used to suppress re-growth.

Def/Folex (trade names for the same active ingredient) have been around a long time and still provide good defoliation of mature leaves. They work very well in combination with thidiazuron and ethephon products. As the weather gets cooler in late fall, a little Def/Folex in the mixture will help increase the activity of thidiazuron materials.

We have a couple of “activated ethephon” products on the market including Finish and FirstPick. These are ethephon based materials that contain additional ingredients that increase the activity of ethephon, thereby helping to open bolls 2 to 3 days faster than regular ethephon and also increasing overall defoliation, especially when used with thidiazuron products. This may be important if a hurricane is headed your way and you want to get the crop out of the field before the storm hits. On the other hand, if you don’t think there is time to defoliate and harvest before the storm hits, experience shows it is probably best to wait until after the storm passes before defoliating. Cotton defoliated and standing in the field when hurricane force winds hit will almost certainly result in most of the lint hitting the ground.

Finally, we are revising an Alabama Cooperative Extension System circular that provides information on harvest aides and their use under various environmental conditions. Circular ANR-715, “Cotton Defoliation”, is being revised and will be available as an “on-line” publication hopefully by the middle of September. This publication gives an overview of the timing for defoliant applications and lists products and their use rates. It also will give information for special conditions, like defoliating rank cotton or weedy cotton. Look for the revised version after September 15th on our extension website at www.aces.edu or www.alabamacrops.com.

*The Alabama Precision Ag Team Would Like to Invite You to Visit Their New Website: Shannon Huber Norwood, Amy Winstead

www.alabamaprecisionagonline.com. In addition to housing all of the traditional Extension documents related to precision agriculture, the website features a blog, event details and news announcements. Recent blog entries have addressed the EQIP Precision Ag Incentive and a Pre-Harvest Checklist for Yield Monitors. For Facebook users, check out the Facebook page “Alabama Precision Ag Online.” A link to the Facebook page is available from the website.
In the cotton market, the last week or so has been tough on futures prices. We had the December contract up around 65 cents in mid-August after a 3-week run-up that started in late July. On August 14 there was a one-day move of nearly 300 points down, and we have lost about 600 points total. The only good news is that there seems to be firm support here around 60-cent cotton (December contract), and perhaps little downside risk from here on. Long-term, the recent downturn just fits right into the sideways trading pattern that we have seen all summer. It’s August, the market is in the doldrums, volume is weak, and the marketing year is winding down. New USDA numbers will come out in mid-September, and perhaps those numbers will provide some direction for the market. The USDA crop report that came out this month didn’t provide a lot of help. US stocks were lowered, but not enough to matter. World stocks were not significantly reduced, and the market is apparently still waiting on some indication of increased demand for a signal that cotton price can move higher.

December Corn continues around $3.30 per bushel, and has not recovered 100% from the July crop report. The experts are not predicting a rebound in corn price. US crop prospects appear good and export sales are “steady to weaker”. In a side note, let me just plug in here that some experts are also predicting a bottom in the wheat market. It has been a long slide from the $7 wheat we had back in May and June, but experts are now describing wheat as “oversold”. If we see some improvement in wheat price, that would support also corn to some degree.

Soybean prices can also support the grains to some degree, and beans have rebounded from their lows and the November contract moved back over $10 for much of the month of August. Bean prices did move back below $10 when the August crop report was released last week, but as of this writing, the November contract is back above $10, but just. All this is based on poor crop conditions in China (too dry) and India (too wet) and some speculation that the US crop, although in good condition now, is late and could be damaged by an early frost. We have seen relatively good prices on beans until the July crop report was released, so perhaps farmers have already locked in a price on most of our crop. I think that strategy is probably wise because even though supplies seem to be “tight” betting that the American heartland will not produce a surplus is probably a losing proposition over the long-haul. I wouldn’t argue against holding out a portion of the crop, say 20% or so, just in case some of these shortages develop, however.

*2009 Cotton Calendar. D. Monks, Extension Specialist*

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<th>Date</th>
<th>Event</th>
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<tr>
<td>September 10</td>
<td>East Alabama Cotton/Peanut Tour</td>
<td>L. Kuykendall, J. Clary</td>
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<td>September 24</td>
<td>SE Alabama Crops Field Day, Eufaula</td>
<td>W. Birdsong, B. Dillard</td>
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<td>December 8</td>
<td>AL Prec. Ag Field Crops Conf., Atmore</td>
<td>S. Norwood, A. Winstead</td>
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<td>January 4-7</td>
<td>Beltwide Cotton Conf., N. Orleans</td>
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There are two websites that you may be interested in visiting:
Alabama crops information:  [www.alabamacrops.com](http://www.alabamacrops.com)

*Reference Number: PSK-8-09, D. Monks, C. Burmester, and B. Goodman, editors*

Use pesticides **only** according to the directions on the label. Follow all directions, precautions, and restrictions that are listed. Do not use pesticides on plants that are not listed on the label.

The pesticide rates in this publication are recommended **only** if they are registered with the Environmental Protection Agency and the Alabama Department of Agriculture and Industries. If a registration is changed or cancelled, the rate listed here is no longer recommended. Before you apply any pesticide, fungicide or herbicide, check with your county Extension agent for the latest information.

Trade names are used **only** to give specific information. The Alabama Cooperative Extension System does not endorse or guarantee any product and does not recommend one product instead of another that might be similar.

For more information, call your county Extension office. Look in your telephone directory under your county's name to find the number.

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