



Alabama Cotton Picksack Newsletter

April 2005

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***Regional Extension Agents (REA).** *D. Monks*

For many decades, the Alabama Cooperative Extension System has been serving the citizens of the state. Youth and adult programming have helped our fellow Alabamians in areas that include nutrition, animal science, row crop, fish, and horticulture production, and, perhaps our most visible program, 4-H. In 2004, the Alabama Cooperative Extension System was reorganized and most agents were re-assigned according to their discipline, training, and experience to serve the citizens in their regions.

There are now eight regional extension agents (REAs) and three county extension coordinators (CECs) in the state that specialize in row crop production.

REA/CEC	Geographic Area	County Base
Mark Hall	North- Central TN Valley	Madison
Heath Potter	Northwestern counties	Lawrence
David Derrick	Northeastern counties	Cherokee
Warren Griffith	Central and western counties	Fayette
Rudy Yates	Western counties (Blackbelt)	Marengo
Leonard Kuykendall	Central and eastern counties	Autaugaville
Richard Petcher*	Southeastern counties	Coffee
TBA	Southwestern counties	TBA
Tim Reed	Franklin Co.	Franklin
Jimmy Jones	Henry Co.	Henry
Jim Todd	Mobile Co.	Mobile
Jeff Clary (retired)	East Central	Lee

*Richard Petcher also serves as the interim REA for the southwestern counties.

As always, if we can be of service, please do not hesitate to contact one of the members of our row crops agronomy team.



***Reniform Nematodes Detected in Early Season Soil Sampling.**

C. Burmester and K. Lawrence (Associate Professor, Entomology and Plant Pathology, Auburn University)

Beginning in mid-February, soil samples were taken across northern Alabama to detect levels of reniform nematodes. Sampling was done after the soils had experienced a few days of sunny weather. These samples were taken in the old cotton row, six to eight inches deep. The sampling was expanded to central Alabama in March following the same procedures as north Alabama.

In north Alabama, early sampling detected reniform nematode levels that ranged from about 250 to over 8,000 per pint of soil. All these samples were following cotton and the majority of samples had reniform levels between 3,000 and 5,000 per pint of soil.

The central Alabama samples were taken during the month of March and levels ranged from 0 to over 20,000 per pint. Most of the higher numbers were found in the late March sampling. Some of these March samples were following corn or peanuts, which are not a host for the reniform nematode. Surprisingly, reniform nematode levels between 2,500 and 5,000 per pint were found in some fields following corn or peanuts. In these cases it is possible the reniform nematodes reproduced on weeds in the fields. This is currently being studied in greenhouse research.

So what do these numbers mean? Right now no one really knows. However, it appears we may be starting the season with some fairly high numbers of reniform nematodes. On-farm tests partially funded by the Alabama Cotton Commission will be studying control measures and if damage can be correlated to these early season soil samples.



***Alternative Nitrogen Sources. C. Mitchell**

The price of fertilizer nitrogen has skyrocketed in 2005 along with fuel prices. Don't expect it to come down. This is just another fact of supply and demand. The world's population has increased, there is greater demand for fossil fuels from all segments of society, and we're rapidly depleting the world's supply of these fossil fuels. Since fertilizer nitrogen manufacture is totally dependent upon energy sources, these prices

have gone up too. Also the price of phosphate and potash has increased because of the cost of transporting these mined products across the country.

What's an Alabama cotton farmer to do? There is no simple answer but there are alternatives that have been around for a long time. We have chosen not to use them because it has been more convenient to use chemical fertilizers. Here are some choices.

(1) Soil test and take advantage of high soil P and K levels. This option has always been there. Extensive Alabama research has shown that once the soil test P and/or K levels reach a "HIGH" rating, then additional applications are not necessary for maximum yield. However, since fertilizer has been relatively inexpensive compared to other production costs, some consultants and soil test laboratories outside of Alabama have chosen to go ahead and recommend a little "maintenance" P and K for "insurance" purposes. Alabama research shows this is not necessary. Avoiding these "maintenance" applications during hard times has always been a wise alternative.

(2) Use winter legumes as a source of N for cotton. Professor J. F. Duggar at the Agricultural and Mechanical College of Alabama (now Auburn University) demonstrated that this could be done in 1896. His experiment now called the "Old Rotation" has continued to demonstrate this fact for 109 years. Before WWII, as much as half of all of Alabama's cotton acreage had a winter legume planted as a N source. When fertilizer N became abundant and relatively cheap, farmers abandoned this time-honored practice. Yes, planting a winter legume (crimson clover or vetch) as a winter cover crop requires more management but the alternative may be even more costly. Today, we have some excellent new varieties of early maturing legumes e.g., 'AU Robin crimson clover' and 'AU Early Cover vetch'. A good crop of winter legume planted in October and killed during peak bloom in April not only protects the soil from winter erosion and adds valuable organic matter to the soil, but it can also mean as much as 150 pounds of "free" nitrogen, the entire fertilizer cost for the season in some fields.

(3) Poultry litter is abundant in Alabama. Every acre of Alabama's cotton, corn and small grains could be adequately fertilized with Alabama's 1.8 million tons of poultry litter. On average, fresh poultry broiler litter is about a 3-3-2 grade fertilizer (60 pounds N, 60 pounds P_2O_5 , and 40 pounds K_2O per ton). Two to three tons per acre applied at planting could totally replace ALL the fertilizer needed for maximum cotton production. A little more would be needed in extreme south Alabama on very sandy soils. The cost of transportation is the only factor limiting its use. This spring, competition has been high for poultry litter so you can expect to pay more for it if you live more than 50 miles from a source. Fortunately, USDA-NRCS EQIP program can help to pay some of the cost of transporting poultry litter to your farm. Remember, it is just like fertilizer N and is subject to the same leaching losses. It is always best to apply poultry litter as close to planting as possible. It can be surface applied in reduced tillage operations with little loss.

There are alternatives to the high cost of fertilizer nitrogen. But even these alternatives come with a price -- either a higher level of management or a higher cost of transportation. The good news is that we do have alternatives.



***Precision Agriculture: Light Bars and Guidance.** *S. Norwood*

If you are considering purchasing a light bar or some form of guidance, here are a few things to consider. First, where will I be using the light bar? Will I be using it only on a sprayer or will I also be mounting it on a spreader truck? If you plan to move the unit around a good bit, an extra set of cables could be a worthwhile investment. Second, do I want mapping capabilities? Some light bars have the capacity to record where you have sprayed to a data card, and you can later open that data card on your computer. This is a nice feature if you are not the person operating the sprayer, because you can verify that the whole field was sprayed. Another benefit is that you generate field boundaries when you spray. You can compare the acreage from the light bar to the acreage that you have calculated from other means.

Often times, people ask me about cost and which (brand) unit they should purchase. Light bars range in cost from \$2500 - \$6000. With any precision agriculture equipment, an important factor is "Who can provide me with customer support?" It may be the manufacturer representative or the equipment dealer, but I want to know who I can contact to get further information about any product purchase. Some light bars mount inside the tractor cab while others are designed to be mounted outside - this is personal preference. Will you want to use the GPS receiver for other purposes (for example, mount on 4-wheeler and collect soil samples)? Another factor to consider is if the light bar can be upgraded. For example, if you purchase a unit that does not have mapping capabilities, can you purchase an add-on next year if you decide you want application maps? If a light bar does create maps, can the files be read into any agricultural software package or do you have to use a specific software package? An additional upgrade feature to consider is assisted steering. Steering assist units that tie into light bars generally provide from 8-12" accuracy depending on the GPS correction signal. More accurate steering assist units can provide 1" accuracy, and are considerably more expensive.

The Alabama Department of Community and Economic Affairs is providing funding for a project to evaluate the use of light bars as means to reduce fuel consumption. Light bars have been shown to reduce overlap and skips by 10% in university research. If overlap is reduced 10%, then fuel consumption is also reduced. This grant is providing us with an opportunity to thoroughly evaluate light bars in locations across the state and to evaluate additional uses of light bars.

For further information, contact Shannon Huber Norwood (snorwood@aces.edu), Multi-County Extension Agent for Precision Agriculture at 256-353-8702 ext. 26 (office) or 256-412-1696 (mobile).



*** Breaking News: Supply and Demand Impacts Cotton Market.** *B. Goodman*

The price of cotton has been hanging tough the last few weeks, but on Wednesday last week there was a big sell-off. There was something on the DTN about over-bought longs or such. The market was off over a hundred points and closed near the bottom of the trading range. It was a bad sign, but the market held its ground Thursday and Friday, always a possible sign of strength. The DTN said it was trade buying that held the market up, and the market has held its ground since then pretty well.

Perhaps it is just a sign of the times that we now need to watch export commitments so very closely. There seems to be very little slack between the amount of cotton that we must export to maintain the pace predicted, and the amount of cotton we can physically ship. In other words, the big question is; if we fall behind on our exports on any given month, is it physically possible for us to catch back up?

There was also a blurb on the DTN from Carl Anderson in Texas who said that, because of the relatively strong price of cotton and good moisture conditions, farmers out there might plant more cotton than the USDA estimate last month indicated. I don't know much about Texas, but I think this price run up in the cotton market has a lot of people worried. We are in a kind of no-man's land where you don't know what to do. The dilemma for farmers is if you lock in a price now can you count on a LDP this fall to add the profit margin you need? This might be one of those years where the market price of cotton rises but farmers see less total money for their cotton. I wouldn't call this a "good" price for cotton, it's a "worrisome" price, and the farmer is out on the flying trapeze but doesn't know if the safety net is down there or not.

But Carl does have a point about the corn crop. Here in Alabama, we have a strong positive corn basis, so the price of corn is not bad at all. Farmers had planned to plant a bunch of corn (for Alabama) this year. Corn is a good rotational choice for cotton in many areas of the state, but the weather this spring has thrown a major monkey wrench into the corn planting plans. I have spoken to several farmers and some regional extension agents who all said that only a small fraction of planned corn planting is in the ground in large areas of the state. Now it is time to fix ground for cotton and peanuts. I have heard rumors that a bunch of corn seed is being turned back in. I think Mississippi and Georgia are in the same boat. I still like \$2.40 corn better than 50 cent cotton with no LDP. Mark Hall mentioned that a lot of the corn planned for the Tennessee Valley was a result of high reniform nematode numbers in some fields.

At any rate, the new season is upon us. The first crop condition report came out this past week. We had 10% planted in Alabama, Georgia, and South Carolina, but less in Mississippi, North Carolina, or Tennessee.



***2005 Cotton Calendar. D. Monks**

A toll-free “800” entomology hot-line (1-800-458-3738) will again be available this season with a weekly update of insect conditions. Information on insects and their control will be highlighted on this toll-free line.

Date	Event	Contact Person
June 21	Conservation-till Tour, SE AL	R. Petcher, K. Iversen*
July 14-16	ALFA Commodity Conf., Columbus, GA	ALFA
August 19	East Alabama Cotton Tour	J. Clary, L. Kuykendall
August 25	North Alabama Crops Tour	M. Hall, S. Norwood
Late August	South Alabama Crops Tour	M. Hall, D. Monks, S. Norwood, C. Dillard, REA/CEC**

*USDA-ARS Soil Dynamics Laboratory, Auburn.

**REA/CEC, Regional Extension Agent/County Extension Coordinator.

There are two websites that you may be interested in visiting:

Weekly crop updates: www.nass.usda.gov/weather/cpcurr/al-crop-weather

Alabama cotton information: www.alabamacotton.com

*Reference Number: PSK-4-05, D. Monks and C. Burmester, editors