



Your Experts for Life

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A handwritten signature in cursive script that reads "Richard L. Petcher".

News Letter April 2007

Upcoming Meeting: High Residue Cover Crop Conservation Tillage Field Day

This field day would be a valuable day for any grower in Alabama. Jimmy Brooks and Eddie Nall in Monroe County are hosting this field day. They have been very successful in managing high residue cover crops in their production system. They have an understanding of the whole process and are willing to share their understanding of this intensive management system that they are learned from years of experience.

Outstanding yields are the results of their labor. Being in their fields with them, their crops and their equipment would help every grower in Alabama.

This is a difficult time to leave your own field and attend a meeting. However, the fields are ready to be rolled, and the opportunity to learn from their experience is now. The busy time of year will only get busier.

Date: Wednesday April 4, 2007

Place: Jimmy Brooks Farm on County Road 45. To get there take Highway 21 from Monroeville toward Atmore. Half way between Frisco City and Uriah take County Road 45 East until it dead ends. Then turn right again. This road will still be Co. Rd. 45. Continue for ¼ mile and then take the dirt road (School Road) to Brooks Barn. It will be the first farm on the left. Meet in the field at 10:00 a.m.

Speakers: Jimmy Brooks and Eddie Nall (Growers)

John Fulton, AU Biosystems Engineering. Precision Agricultural Guidance.

Randy Raper and Andy Price, USDA Soil Dynamics Lab, Auburn University, Benefits of conservation including weed control.

Edzart van Santen, Auburn University Agronomist, Improving Your Cover Crops

Dennis Delaney and Richard Petcher, New Research on Cover Crop Management

Ben Moore, NRCS Conservation Program Requirements and Benefits to You.

Lunch: (The Best Burn Down Chemicals) David Whitehead with Valent, Rod Higdon with Monsanto. This meeting is sponsored by all of the above agencies plus the Monroe County SWCD and the Alabama SWCS.

ALABAMA A&M AND AUBURN UNIVERSITIES, AND TUSKEGEE UNIVERSITY, COUNTY GOVERNING BODIES AND USDA COOPERATING

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Wheat and Oat Disease Control

Small grain acres have more than doubled this year. Baldwin County alone has more than 10,000 acres of wheat and oats together. The crop perspective at this point looks very good. Much will depend upon the weather from now through May. Be encouraged small grains like dry weather, but as we know too much of a drought is not good for any crop.

The research conducted by Malcomb Pegues and Dr. Katherine Burch at the Gulf Coast Research and Experiment Station gives our growers some very valuable information. The fungicide test for controlling diseases on wheat was conducted on Pioneer 26R12 which has a moderate package for disease resistance. Most other varieties planted in our area have a lower disease package. In 2004 and 2005 the results were similar. Every fungicide applied resulted in a 9 to 14 bushel yield increase and significant increase in wheat quality. In 2006 when disease pressure was at a low, the fungicide tests resulted in a 3 to 9 bushel yield increase and a significant increase in wheat seed test weight. As of today March 21, 2007 our disease pressure on wheat has been low, which is very similar to last year. The research concludes that it does pay to spray in Baldwin County even in a year that is relatively dry and disease pressure is low. Results from their tests also conclude there is a slight yield increase by applying low rates of fungicide in two applications verses the full treatment at one application.

Fungicides can be looked at in three categories. Tilt 3.6E and Propimax EC are curative fungicides. These are best to use when the disease is already present. Quadris 2.08FL and Headline 2.09E are preventative fungicides. These fungicides are applied to give a longer term prevention of the disease. They typically give a two week and sometimes a three week protection. Quilt and Stratego 250EC are a mixture of both the curative and preventative fungicides. This year when the disease pressure is low it would be best to wait as long as possible until pulling the trigger to apply a fungicide. At that time if disease pressure is low, it would be best to apply a preventative fungicide to give your wheat the best protection against disease for the rest of the season.

Aphids are also present in our wheat and oat fields. The threshold for treatment is 5 aphids at the Boot/flag leaf stage and 10 aphids at the head emergence stage per square foot of row. At the soft to hard dough stage trying to control aphids is of no value.

Double Cropped Corn 2007

Many acres in Alabama are planted into winter grazing following a corn crop. A few growers utilize this land for growing a crop of brown top millet. A few other options are to plant a crop of Tropical Bt corn. The chances of making this second corn crop are reasonable, but chances of getting the right weather to make a bumper crop are slim.

Another choice is to try some late soybeans. It is a little late to plant soybeans in late July and early August, but it has been done with some success. Select a group VII or VIII soybean and drill or plant narrow rows. This late in the season, you will most likely need

to spray with fungicides for Asian Rust and insecticides for stink bugs and worms. Grain sorghum also can be planted after corn, but grain sorghum needs hot weather to mature. If planting is too late and cool nights come early, the maturation process is slowed down and the grain sorghum never matures. Corn has a longer growing season than does grain sorghum. However, corn keeps maturing even in cool weather and will make a crop when grain sorghum may not. Yields on the second crop are usually not the best. Consider these thoughts before making your investments. It may be better to use the extra time in late summer to clean up weeds and do deep tillage for fall crops, instead of risking profits from the first crop on a risky second one.

PREPLANT FOLIAR (BURNDOWN) TREATMENTS FOR COTTON

Mike Patterson, Extension Weed Scientist, Auburn University

Several foliar herbicides are registered for killing winter annual weeds prior to planting cotton. Generally, we will use a combination of two or more products to obtain a better overall kill. Soil residual herbicides can be added in with the foliar herbicides to obtain weed control for extended periods of time after application, sometimes lasting into the spring after planting to help with control of summer annual weeds. Regardless of what products are used, it is essential to kill all vegetation prior to emergence of the crop. Weeds not killed prior to crop emergence will compete with the young crop, and the options for killing them after crop emergence are limited.

Foliar herbicides registered for use at burndown include glyphosate (Roundup, etc.), paraquat (Gramoxone, etc.), glufosinate (Ignite), 2, 4-D (many trade names), dicamba (Clarity, etc.), Aim, and Resource. These products have little or no soil residual activity, so their primary purpose is to kill emerged weeds. Dicamba (8 oz rate) and 2, 4-D (16 oz rate) have 21 and 30 day planting restrictions, respectively. The other products can be used immediately prior to planting or in some cases after planting but before crop emergence. Aim, ET and Resource can be applied immediately prior to planting and supplement the activity of glyphosate, paraquat, and Ignite on certain winter annual broadleaf weeds.

Herbicides registered for burndown that have soil residual activity include prometryn (Caparol, etc.), diuron (Karmex, etc.), and Valor. These materials should be applied with one or more of the foliar herbicides listed above. Prometryn or diuron at 0.75 pounds active per acre (1.5 pts of a 4 lb liquid or 1 lb of an 80 DF) can be applied as late as 15 days prior to planting cotton. Valor can be applied as late as 14 days if the one ounce rate is used or 21 days if the two ounce rate is used. Although all three of these products have foliar activity on winter weeds, they all need the additional postemergence activity of the foliar products listed in the paragraph above to provide acceptable control.

Several winter annual weeds are problems in Alabama cotton fields, including horseweed (maretail), cut-leaf evening primrose, pepperweed, wild radish, and ryegrass. Glyphosate resistant horseweed is present in several fields in North Alabama and will most likely spread across the state. Glyphosate can still be used in a burndown program where this weed is present, but you should add either 2, 4-D or dicamba in the mix to kill the resistant horseweed and to increase activity on the other winter annual broadleaf weeds. 2, 4-D or dicamba should also be added with paraquat if resistant horseweed or

cut-leaf evening primrose is present. Adding one of the residual products in with these mixtures will prevent further germination and establishment of additional winter weeds following the initial burndown application, and if applied within 2 to 4 weeks of planting can provide some residual control of summer annual weeds like pigweed for a couple of weeks after planting. If a small grain cover crop or ryegrass is present and needs to be killed prior to planting, then glyphosate or paraquat should be used instead of Ignite. Ignite is effective on horseweed (including glyphosate resistant) and cut-leaf evening primrose. Paraquat is one of the best products on wild radish.

Starting out with a clean seedbed prior to planting cotton is essential. Any uncontrolled weeds growing when the cotton emerges will be hard or very hard (like resistant horseweed) to control. Some potential three-way mixtures are:

“Glyphosate or paraquat or Ignite” PLUS “2, 4-D or dicamba” PLUS “Valor or prometryn or diuron”.

2007 SOYBEAN PRODUCTION IN SOUTH ALABAMA

Dr. Dennis Delaney, Auburn University Soybean Specialist and Richard L. Petcher, Regional Extension Agronomist

Asian Soybean Rust will be a major factor in the decision to plant soybeans this year or not. If Asian Rust appears in south Alabama, it can be controlled with a preventative fungicide program. Fungicide trials at the Gulf Coast Research and Extension Center in 2006 showed up to a 40 bu/A increase compared to treated plots. Growers should plan for the cost of at least two sprays in their budgets, between twenty and thirty dollars and probably closer to thirty with application costs. If rust is in the area, start the first spray at first bloom, and repeat in two to three weeks, depending on the fungicide. The Extension and Experiment Station systems will have about 25 sentinel plots around the state again, scouted weekly. Soybeans in south AL usually respond to at least one application of a fungicide, regardless of Asian rust, however, it often does not pay unless you are making 35-40 bushels or more.

Last year there were about 75 million acres of soybeans in the United States. Alabama growers planted 150 thousand acres of soybeans with an average yield of 20 bushels per acre. Baldwin County growers grew nearly 5,000 acres of soybean with an average yield of 38 bushels per acre. Acreage estimates for 2007 vary widely, but may depend on weather conditions at corn planting, and again at wheat harvest (for double-cropped soybeans).

Here is a guide for the basics of soybean production. This may be old information to most growers, but would save you time in looking it up if you have forgotten.

Rotation is a major key. Soybeans have never been a good rotation for peanuts. Neither do soybeans do well behind peanuts, because of many diseases in common.

Planting dates: Soil temperatures need to be 55 degrees F at 2 inches depth before beginning to plant regardless of the recommended planting date. Soybeans do germinate

much better at 65 degrees than at 55 degrees F. Soybeans flower in response to day length. Therefore, it is very important to plant the correct group of soybean to fit South Alabama's day length. In April plant Group IV soybeans. In May plant Group V and VI. In June or latter plant Group VI and VII. The later you plant go to a later group. July 15 is the last recommended day for planting. Yields start dropping if beans are planted after June 15th.

Seeding rate: There are usually 2,800 to 3,200 seed in one pound of soybeans. A fifty pound bag typically has 160 thousand seeds. One bag per acre is about a perfect seeding rate for South Alabama. When planting narrow rows, planting early or planting very late it is recommended to plant 180 to 200 thousand seed per acre. Ten more pounds of seed would give you the increased seeding rate.

Row Spacing: Planting narrower rows often has a yield advantage. The early beans (Grp IV) tend to grow more upright and tend to yield better with narrow rows. When planting very early or very late, narrowing row spacing will allow more growth and canopy closure before blooming. As a general rule, if the row middles close before bloom starts, your row spacing is close enough for maximum yield potential. Faster canopy cover also aids in moisture and weed competition.

Variety Selection: This is very important. Study the University Variety Test information along with Company Tests. Use several sources if possible. Get your name in the pot early to get the seed you want.

Tillage: Soybeans respond to deep tillage on sandy soils. Often growers will deep till before planting their wheat, boosting yields on the wheat and the soybeans. Tests with the University of Georgia show that soybeans will benefit from a deep tillage pass again right before planting, but Auburn University research shows that deep tilling the wheat is usually sufficient.

Inoculants: Soybeans are a legume, so with the help of soil bacteria they fix their own Nitrogen. Nitrogen fixation is critical for producing cost effective high yields of soybeans. *Bradyrhizobia japonicum* is the bacteria that fixes Nitrogen, by attaching to the plant roots, taking atmospheric N and converting it into a usable form for the plant. Inoculating soybeans is recommended, unless you have grown soybeans on that land in the last three years. Molybdenum deficiency can also be a problem. You can take care of this by adding one ounce of sodium molybdate or ammonium molybdate per bushel of seed at planting.

Fertility: Soybeans, like most of our crops here, are sensitive to low pH soils, so soil test and add lime if you need to. Nitrogen fertilization doesn't pay on well-inoculated soybeans. Soybeans need 40 units of Phosphorus and 40 units of Potash on medium testing soil, and 120 units of P and 120 units of K on very low testing soil. Soil test, and if planting after well fertilized grain, you may not need to add any additional fertilizer.

Boron is also a necessary minor element that may be applied at planting or foliar spray applied. Sulfur may also be deficient on deep sandy soils. Ten pounds of Sulfur per acre is recommended for deep sandy soils.

Herbicide: Weed control during the first month of plant growth is the most important. Most soybeans planted now are Roundup Ready. Glyphosate may be applied in sequential treatments up to the R3 (a 3/16 inch pod on the top four nodes) stage, but do not exceed 2 lb of active ingredient per acre pre season. The rate should be adjusted to the size and kind of weeds present. When planting no-till it is usually necessary to use a burn down herbicide before planting. Growers may find preplant herbicides such as Prowl, Sonolan or Treflan useful to give them early protection before using Glyphosate.

Insects: Soybeans are a crop that from time to time the scouting gets forgotten. Scouting is especially important from the time of blooming until the beans are mature in the pod. Soybeans suffered greatly the last two years from stink bugs, so be prepared this year again. Stink bugs can pierce and damage pods all the way up to seed maturity, so keep checking.

Diseases: The presence of Asian Soybean Rust in Alabama will require the use of fungicides. There are other diseases in our soybeans that an early bloom fungicide program will help to control and increases yields. Typically across Alabama a two time fungicide program will increase yields from 5 to 15 bushels even in the absence of Asian Rust.

Harvest: Proper adjustment of the combine is very important. In the Midwest studies show average harvest losses to be 9 to 13 per cent. After proper adjustments to the combine, the yield loss averages 3 per cent. That is around a 5 bushel or \$35 loss due to combine mal-adjustments. Be alert at harvest. Soybeans dry very slowly early on, going from 60 per cent moisture down to 50 % moisture in 16 days. Then they can dry from 50 % to 10 % moisture in ten days. Start harvesting when soybeans are 15 % moisture. Once beans hit 11 % moisture shattering losses increase rapidly.

This is probably enough information to get your crop up and growing. After that get busy scouting for weeds and then Asian rust and for insects. Hopefully, there will be some profits in soybeans this year. If not, bale the soybeans. They make excellent hay. Using a crusher or crimper to speed the drying of the stems will help reduce leaf loss and assure a higher quality hay.

Deer also like soy beans and will often run a mile or more to find a patch. Soybeans are a lot easier to grow than cotton. You might even have a little time for fishing this summer.

Auburn University Soybean Variety Test

The following two tables are the Soybean Variety Tests Conducted at the Gulf Coast Experiment Station in Fairhope. These tests are conducted by Malcomb Pegues, Dr. Dennis Delaney and Kathy Glass, from Auburn University

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ALABAMA AGRICULTURAL EXPERIMENT STATION

TABLE 11. PERFORMANCE OF SOYBEAN VARIETIES AT FAIRHOPE, ALABAMA, 2006

Variety	Yield	Lodging score	Shattering score	Plant height	Maturity date
	- bu/acre -			- inches -	
Maturity Group V					
Croplan Genetics RC 5972	86.5	2.5	1.2	35	10-7
Croplan Genetics RC 5955	84.7	3.0	1.0	34	10-10
Hutcheson	84.2	2.7	1.7	30	10-6
Deltapine DP 5915RR	83.8	2.7	1.2	33	10-7
Dyna-Gro 36N57	82.9	3.0	1.5	32	10-2
Croplan Genetics RC 5892	79.0	2.5	1.2	40	10-10
Dyna-Gro 34J56	78.1	3.0	1.2	35	10-3
Pioneer 95M30	77.3	3.2	1.7	33	10-2
Anand	76.7	1.5	1.2	23	10-3
Deltapine DP 5634RR	75.8	3.2	1.2	36	10-4
Deltapine DPX5914RR	75.7	1.7	1.2	29	10-4
Dyna-Gro 32A53	74.1	2.7	1.5	32	10-3
Deltapine DPX5115RR/S	62.5	3.0	1.2	49	10-5
Maturity Group VI					
Dyna-Gro 37C62	88.4	2.2	1.0	36	10-10
Pioneer 96M60	88.3	3.2	1.0	37	10-9
Musen	85.5	3.7	1.0	39	10-20
Dyna-Gro SX06361	85.3	2.5	1.0	27	10-12
Deltapine DP 6568RR	83.1	2.2	1.7	36	10-12
Croplan Genetics RC 6655	82.3	2.2	1.0	36	10-17
Dyna-Gro 36T60	78.2	2.2	1.2	31	10-7
Deltapine DP 6880 RR	77.9	3.0	1.0	37	10-16

continued

TABLE 12. CONTINUED

Variety	Yield			Lodging score	Shattering score	Plant height	Maturity date
	2006	2-yr avg	3-yr avg				
----- bu/acre -----			- inch -				
Maturity Group VII							
Deltapine DP 7220RR	89	69	61	3	1	39	10-28
Deltapine DP 7870RR	83	65	60	3	1	41	10-23
Asgrow AG 7601	80	61	56	3	1	40	10-31
Hartz H 7242RR	76	60	55	3	1	39	10-21
Croplan Genetics RC 7402	80	59	55	3	1	45	10-24
Stonewall	71	58	54	3	1	34	10-21
Croplan Genetics RC 7355	95	74	.	2	1	33	10-25
Au 02-3104	94	.	.	3	1	39	10-26
Au 02-2844	93	.	.	3	1	40	10-24
Dyna-Gro 35K73	80	.	.	3	1	38	10-18
Deltapine DPX7330RR	80	.	.	2	1	36	10-21
Au 02-1126	77	.	.	2	1	33	10-21
Maturity Group VIII							
UGA G04-G2261	81	62	.	3	1	32	10-27
Au 02-2814	93	.	.	3	1	43	10-25
Au 02-3223	91	.	.	3	1	40	10-26
Trial mean	82	64	59	.	.	.	.
LSD(0.10)	6.0	3.8	2.8	.	.	.	.
CV (%)	8.1	9.3	9.1	.	.	.	.