



Alabama A&M and Auburn Universities



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News Letter November 2009

Upcoming Meetings:

Fourth Annual Precision Agriculture and Field Crops Conference

Place: Wind Creek Hotel in Atmore, Alabama.

Date: December 8, 2009

8:00 a.m. Registration, vendor area and educational exhibits open.

9:00 a.m. Presentations Begin.

The Alabama Cooperative Extension System (ACES) 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, booth exhibits, research posters 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 agricultural data and also a tour of the sugar cane field. 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. Certified Crop Advisor Points will be offered.

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.

1:30 p.m. Workshop on managing and using precision agriculture data.

1:30 p.m. Tour of the Sugar Cane Field.

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

The Alabama Cooperative Extension System offers educational programs, materials, and equal opportunity employment to all people without regard to race, color, national origin, religion, sex, age, veteran status, or disability.

Directions to the Wind Creek Hotel:

From I-65 – Exit 57 Atmore and Hwy 21. Take Hwy 21 South ½ mile, turn right on Poarch Road (County Road 14). From Pensacola – take US-29 N to Molino, turn left onto FL-97. Crossing into Alabama, FL-97 becomes AL-21 N. Continue 8 miles North, turn left at Poarch Road (County Road 14).

The Wind Creek Hotel has rooms reserved at \$99/night (+ tax) for this conference. Call 1-866-Wind360

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.

Late Season Rains Greatly Affecting Crops

The late season rains are greatly slowing down harvest and affecting crop quality.

The peanut crop in Southwest Alabama is still rated good to excellent. When to harvest is one of the most important decisions growers make each year. However at this point in the season most growers are simply pushing forward hoping to get their crop in before damaging freezes arrive.

The cotton crop has suffered tremendously from the rains. As of today, October 27 the majority of the cotton crop remains to be harvested.

Soybean harvest is easing along. The crop is more of an average crop than growers had earlier hoped for. Early soybeans have been heavily damaged, with some fields not worth harvesting or will have severe dockage.

Soybean Asian Rust

The Alabama Crops Team, notably Dr. Ed Sikora (Auburn University Soybean Pathologist) with the help of Dr. Mary Delaney at Auburn University and the Regional Extension Agronomists around the state have now detected and documented Asian Soybean Rust in all 67 counties in Alabama. This information along with trouble shooting and identifying other diseases in our soybeans in Alabama has been of great help to us again this year. Some unsprayed fields likely lost some yield to rust, but it's late movement and timely spraying kept losses low.

For more information and better understanding of the rust situation call the **Soybean Rust Hot Line: 800-446-0388**.

For more information on soybean rust, view the USDA rust information web site at: sbr.ipmpipe.org. When viewing the national map, click on Alabama to read Dr. Ed Sikora's weekly commentary and recommended management practices for the state.

Peanut and Vegetable Insect Advisory:

1-800-446-0375 (IPM hotline)

Dr. Ayanava Majumdar bugdoctor@auburn.edu (251-331-8416) is coordinating the insect pheromone trap monitoring project in Alabama and has Insect Pest Advisories on the hot line as well as on <http://tinyurl.com/yhtvccr> and www.agfax.com. Information is updated weekly.

Sunn Hemp a New Cover Crop for Alabama

Russell Hendrix in Fruitdale, Washington County, Alabama is the producer conducting the "On Farm Sunn Hemp Demonstration and Research" project for Southwest Alabama. Sunn hemp is used in many tropical countries as the number one cover crop for reclaiming poor land. There are millions of acres of this crop grown in other countries. Brazil calls it their number one soil builder. Sunn hemp being a tropical plant grows only in the summer here. Brazil's second soil builder is the "Tillage Radish". There are over 350,000 acres of the tillage radish in Brazil.

Sunn hemp is originally from India and has been grown since the dawn of agriculture. It has been grown as a green manure, livestock feed for forage, hay and for non-wood fiber. It is also excellent for deer and goats.

Sunn hemp is a good source of Nitrogen. It is a tropical legume so as it grows it produces Nitrogen. Then when the crop dies it releases Nitrogen back into the soil for the next crop. Over the summer sunn hemp in favorable conditions may grow ten to twelve feet tall and release 200 pounds of Nitrogen back into the soil.

In **Hendrix's experiment** the sunn hemp was planted on August 10, 2009. A good fit for sunn hemp in South Alabama would be to plant sunn hemp following a corn crop. This is why it was planted on August 10th. On October 6, 2009 sixty days after planting the sunn hemp was sampled. It was air dried for 10 days and weighed in order to calculate the amount of organic matter and nitrogen the sunn hemp would add to the soil. Hendrix's sunn hemp in 60 days was 6 feet tall and produced 7,840 pounds (3.92 tons) of organic matter and 118 pounds of Nitrogen.

A good rotation in South Alabama would be corn, Sunn hemp and then wheat. This would allow the sunn hemp to rebuild the soil and supply the Nitrogen for the following wheat crop.

In Hendrix's experiment no diseases or insects were noticed to affect the sunn hemp. It appears to smother out most if not all other weeds including pig weed and nutsedge. This crop may prove very beneficial in ridding land of unwanted weeds and pests. Hendrix's experiment also included attracting deer. The deer enjoyed eating the leaves of sunn hemp until the crop grew around 3 feet tall. The leaves of sunn hemp are 30 % protein. From that point on the deer did not damage the crop, but still enjoyed walking in it.

Sunn hemp is resistant to root-knot and Reiniform nematodes. This is another major factor for growing this crop. Root-knot and Reiniform nematodes are a major pest in South Alabama agriculture. And root-knot nematodes are a pest in almost every home garden in South Alabama. Sunn hemp would be a tremendous benefit in reducing nematode populations in almost every home garden in our area. Gardeners could plant their spring crop and then in July or August plant the sunn hemp.

Cultural Practices: The recommended seeding rate is 50 pounds per acre. Seed costs are now around \$3.00 per pound so growers might experiment with lower rates, even 25 pound per acre. Seed can be broadcast and covered about ½ to 1 inch deep or drilled in.

Sunn hemp will grow on poor soil with a pH of from 5 to 7.5. It will grow on sandy or clay soils, just not too hard packed clay. The soil does need to be fairly well drained. It will need zero Nitrogen, but will grow better if ample Phosphorus and Potash are in or added to the soil.

Sunn hemp is fairly drought tolerant, but will grow better if it receives ample moisture.

Sunn hemp may be planted any time after there is no danger of frost in the spring and will die again at first frost in the fall.

The plant grows very fast and in about 60 days will be 6 feet tall or taller. This is a **good time to mow** the sunn hemp about 10-12 inches high and let it ratoon or regrow again. If allowed to get too tall and old the stems will become tough and fibrous and will not decompose rapidly. If the plants are too tough they will also cause problems the following year when you are trying to prepare your soil and plant.

Sunn hemp is a day length sensitive crop. It will grow any time during the summer, however it will not flower and go to seed until the days start getting shorter (late September here). So the plants do not reproduce mature seed in our area. The only place the seed will grow in the U.S. is South Florida, South Texas, Puerto Rica and Hawaii. Therefore seed is fairly expensive for large acre conditions.

Research has been conducted in the U.S. since the 1930's. Even then it was reported for its excellent soil conditioning benefits. Research is presently being conducted in Hawaii, South Carolina, Florida and Auburn University. **Dr. Jorge Mosjidis** is the plant breeder at Auburn working with sunn hemp. He is concentrating on breeding varieties that will produce seed here in the Southeast. The major purpose of this is to decrease the seed costs so growers could use this cover crop on a large scale. His varieties are probably two years from being commercially available.

Seed supply here in the U.S. is limited and is rather expensive. It is too late to plant seed this year, however, there may be a small supply of seed that growers could purchase to experiment with and home gardeners could afford for their smaller gardens next season. The seed supplier for Alabama is Tucker Farm Center (251-267-3104) in Frisco City.

Russell Hendrix's On Farm Experiment will include the "Tillage Radish". Hendrix mowed and then disced the sunn hemp on October 10 and then planted the "Tillage Radish" on October 15, 2009. The radish will benefit from the Nitrogen and soil improvements provided by the sunn hemp and then will provide a winter blanket for the soil and will greatly improve the soil condition, replenish Nitrogen to the soil and help to control the nematodes. This field will have been greatly improved for whatever crop Hendrix decides to plant next spring.

Alabama 2009 Wheat Production Guide:

Edited by Dr. Brenda Ortiz, Auburn University Grain and Precision Agriculture Specialist.

We now have an Alabama-2009 Wheat Production Guide. This document is the result of a teamwork among several Auburn-ACES extension specialists. Special thanks to Drs. Paul Mask, Dennis Delaney, Charles C. Mitchell, Michael Patterson, Kathy L. Flanders, Charles Burmester, Austin Hagan, John Fulton, Shannon Norwood, Bob Goodman, Max Runge, Dale Monks, and Maggie Lawrence for their efforts of getting this important information together.

The production guide is available through our Web site: www.alabamacrops.com. However, next year we will have paper copies of the document.

Wheat and Oat Planting Time is soon upon us. The "On the Farm" July News had a longer version of the recommended varieties for our area. You may want to refer back to it. However, for your convenience I have added some of the July information to this news letter.

Wheat and Oat Recommended Varieties for South Alabama for 2009. This information was reviewed by Dr. Jerry Johnson, wheat breeder and variety trial coordinator with the University of Georgia, and Dr. Steve Harrison, wheat and oat breeder and variety trial coordinator with the LSU AgCenter.

The Top Performing Varieties for this area are:

AGS 2060 This variety has topped some of the University Variety Trials for the past several years. This early maturing line was developed at the LSU AgCenter by Dr. Steve Harrison. It is early maturing with good resistance to stripe and leaf rust and Hessian fly. It has tolerance to powdery mildew and glume blotch. It is a good yielding variety with excellent test weight but will lodge under high N fertilization. This variety should be our **home run variety** this season. It may not be resistant to Hessian fly biotype L. however, it has held up very well against Hessian fly in the field in our area.

Terral LA 482 Very early variety developed by Dr. Steve Harrison at LSU, and is handled by Terral Seed Company. It is susceptible to some races of leaf rust and intermediate for reaction to Hessian fly. It should not be planted early to avoid the risk of spring freeze damage..

AGS 2000 This variety was developed by Dr. Jerry Johnson and released from the University of Georgia in 2000. It is sold by AgSouth Genetics. It has medium maturity and has good leaf rust and powdery mildew resistance. AGS 2000 has moderate resistance, but is not resistant to biotype L. Hessian fly.

AGS 2026 This medium maturity variety was developed by Jerry Johnson with the University of Georgia. It is about four days later in maturity than AGS 2000. It has good yield, is resistant to leaf and stripe rust, and has **biotype L Hessian fly resistance**

AGS 2020 was developed by Dr. Jerry Johnson in Georgia. It is about 4 days earlier in maturity than AGS 2000. It is also similar in lodging. It has good yield and excellent test weight. It is resistant to most strains of Hessian fly except biotype L.

AGS 2010 This early maturing variety developed by Dr. Jerry Johnson with the University of Georgia is sold by AgSouth Genetics. It has excellent disease resistance and is **resistant to biotype L** of Hessian fly.

AGS 2031 This is a mid maturing variety developed by Dr. Jerry Johnson, UGA and is sold by AGSouth Genetics. It is a mid maturing variety with excellent disease resistance and susceptible Hessian fly.

Pioneer 26R61 is a good older variety from Pioneer. It has good yield potential and excellent test weight. This medium maturity variety has good leaf rust, intermediate powdery mildew reaction, and good soil borne virus resistance. It is resistant to most Hessian fly populations, including biotype L.

Terral LA 841 This variety was developed by Dr. Steve Harrison at LSU and is marketed by Terral Seed Company. It is an early variety with high disease resistance, but is moderately susceptible to Hessian fly. This variety did well in South Alabama this past year, except in fields with heavy Hessian fly pressure. This is still a very popular variety planted in Louisiana and South and Central Mississippi.

A few new varieties that University Specialists highly suggest our growers try in South Alabama:

Ogelthorpe This variety was developed by Dr. Jerry Johnson with UGA in Georgia. It is marketed by Dyna Gro with Crop Production Service. It is a mid maturing variety with excellent yield potential and is resistant to Hessian fly and biotype L. It should be an excellent variety for South Alabama when planting early.

Baldwin This variety was developed by Dr. Jerry Johnson with UGA in Georgia. . It is marketed by Dyna Gro with Crop Production Service. It is a **late maturing** variety so will only work in South Alabama if planted very early. It is probably not a good variety for Baldwin County where we typically do not get much vernalization. It has excellent yield potential and is resistant to Hessian fly but not biotype L. Again this variety should be **planted early**. Seed will be very limited for 2009-10.

AGS 2035 This variety is to **replace AGS 2000**. It very similar to AGS 2000, but has a better yield and better disease package. This variety was developed by Dr. Jerry Johnson with UGA in Georgia. . It is now handled by Ag South Genetics. It is a mid maturing variety with excellent yield potential and is resistant to Hessian fly but not biotype L. It should be an excellent variety for South Alabama. In the **UGA variety testing program this variety topped the three year average for South Georgia**.

Terral LA 821 This new variety was developed by Dr. Steve Harrison at LSU. It is very similar to LA 841 in maturity and growth. However 821 has an improved disease package and higher test weight. It has moderate resistance to Hessian fly.

Georgia Gore is a Public Variety that has done well here. It is also an excellent forage wheat. It has poor leaf rust and stripe rust resistance and poor Hessian fly resistance. If a fungicide is applied and Hessian fly are not a problem it usually makes a decent yield. It is **not recommended for top grain production**.

Fleming is an old variety that has always done very well in South Alabama. This variety has a low chilling requirement and has consistently yielded well when planted late. Fleming has good leaf rust, Stripe rust and Powdery mildew resistance and only fair Hessian fly resistance.

Hessian fly: The **biotype L Hessian fly** is now in Southwest Alabama. They appear to be heavier in Escambia and Washington counties than they are in Baldwin, Clarke, Mobile, Monroe, Conecuh and Butler. The only varieties so far that are resistant to biotype L Hessian fly and are recommended for South Alabama are Pioneer 26R61, AGS 2026 and Ogelthorpe. Entomologist across the South, agree that Hessian fly will be a major problem in wheat production this upcoming year. Dr. Kathy Flander, AU Grain Entomologist did extensive scouting, surveying and studying on the Hessian fly across Alabama last year. In order to better control Hessian fly her top recommendations are (1) select the better Hessian fly resistant varieties (2) plant on recommended planting dates (3) do not plant wheat behind wheat and (4) treat your seed if anticipating Hessian fly problems.

Planting Dates: It is important to know the vernalization and the maturity of the variety being planted. Wheat with a medium vernalization and medium maturity must be planted early in South Alabama to perform its best. If planted late it may not perform at all. A wheat variety with a short vernalization and short maturity must be planted late. If it is planted too early it may be severely damaged or lost to late frosts. The recommended planting date here is from November 15 through December 15. The medium varieties should be planted from November 10 through Thanksgiving, and the early varieties planted from Thanksgiving on. A few growers in this area have planted medium maturity varieties November 1-

10. They performed a little better than when were planted November 15. However, planting November 1-10 increases the risk of frost damage and Hessian fly damage.

Varieties to plant early here are: AGS 2026, Baldwin and Ogelthorpe. Do not plant these varieties late and expect them to perform well.

Varieties to plant late here are: AGS 2035, AGS 2060, LA 482 and LA 841. Do not plant these varieties early as they may suffer from frost injury.

Oat Varieties for South Alabama

Horizon 201 is also a new dual purpose oat that is available this season. It was developed and jointly released by Drs. Ron Barnett with the University of Florida and Steve Harrison with LSU. It should be one of the best dual purpose (grain and forage) oats and is marketed by Plantation Seed.

Horizon 270 was also co-developed by Drs. Harrison and Barnett and should be considered for this planting season. It is marketed by Plantation Seed. Horizon 270 is somewhat shorter and earlier than Horizon 201 and has very high grain yield potential. It should be one of the best oats available for 2009.

Trophy oat was developed by Steve Harrison of the LSU Agricultural Center and is marketed by Terral Seed Company. It has excellent test weight and is resistant to crown rust, but susceptible to stem rust. Stem rust is normally not a problem in this area.

Horizon 474 is an excellent, early-maturing forage oat that will also yield respectable grain yields. It is marketed by Plantation Seed Company.

Harrison is an old variety developed by Howard Harrison with Coker Pedigree Seed in the mid 80's. It performed very well in our regional variety test. It is excellent for both grain and forage.

Additional Sources of Variety Trial Data:

Louisiana Yield Trial Results can be found at:

<http://www.agronomy.lsu.edu/LSUWheat/LSUWHEAT.html>

Mississippi Yield Trial Results can be found at:

<http://msucares.com/crops/variety/index.html>

Georgia Yield Trial Results can be found at:

<http://www.caes.uga.edu/commodities/swvt/small.html>

Auburn University Yield Trial Results can be found at:

<http://www.ag.auburn.edu/aaes/communications/publications/forageandfield.html#anchor818520>

Deep Tillage: In soils that have a hard pan small grains respond to deep tillage. This is especially important if the winter is too wet. Not all fields in South Alabama have a hard pan. Testing with a sharp rod (wire flag) or soil penetrometer may help a grower decide if deep tillage is necessary. Research has shown in both Alabama and Florida that preparing a good seedbed by deep tillage will usually result in 9-20 bushels yield increase over just discing. It is important to disc first and then chisel plow. Discing after deep tillage recompacts the soil and essentially negates the positive effects of the deep tillage trip.

Conservation Tillage: Most of our soils in South Alabama are low in fertility and water holding capacity. Organic matter content in these soils is low usually less than 1 percent and may be as low as 0.5 percent. With excessive tillage the organic matter content is very difficult to increase. The result is reduced

crop productivity. The best way to increase organic matter and crop productivity is to minimize the tillage and increase the crop residue ground cover.

Seeding Depth Critical to Wheat Production: A uniform planting depth is very important for maximum wheat production. Wheat seed should be planted from 1 to 1 ½ inch depth. Planting over 2 inches stresses the plant from the time it comes up until harvest.

Seeding Rate: In one of our variety tests conducted in 2007 Matt Watson kept records on the seeds per pound. In that test the seed per pound ranged from 9,000 seed per pound up to 18,000 seed per pound. A good practice is to change from pounds per acre to seeds per square foot. The recommended seeding rate is from 30 to 35 seeds per square foot. If planting late or under poor planting conditions up the seeding rate by 15-20 per cent.

Fertility: One of the best ways to save money on a farm is to soil test. Lime and add nutrients in the fall according to soil test. Small grains respond greatly to fall Nitrogen application. However, they only need a small amount of Nitrogen (20 pounds of N) in the fall. This greatly stimulates tillering. The more tillers the more heads of grain. Sulfur can also be a limiting nutrient in our sandier soils.

Profits: Auburn University wheat budget estimates total costs for wheat production to average \$350 per acre. Forty five bushel wheat has been our Southwest Alabama average for production. At present prices, a grower would need close to 75 bushels per acre to break even. The market at this point does not look too promising. Some growers are planting wheat for grain and for a cover crop, planning to save for grain if the market goes up and basis narrows down. Having a good stand of wheat or oats does not usually happen by accident. Careful planning, obtaining the best varieties, good seedbed preparation, planting at the right time, good fertility, and good weed and disease control usually pay off in extra bushels at harvest. All of the above plus good weather and if good wheat prices materialize a grower should yield some profits.

Again, I hope this information has been helpful to you.

Sincerely,



Richard L. Petcher
Regional Extension Agent
Agronomic Crops