

# On The Farm

## News Letter May 2009

**Wheat and Oat Harvest** will begin around May 15. There are between 40 and 50,000 acres to be harvested in Southwest Alabama. The crop looks good even for having such a wet winter and now dry April. The rain some received today on May 3 should greatly help the crop. Successfully storing the grain this past year has been a challenge for many. The most likely problem according to Dr. Kathy Flanders, AU Grain Crop Entomologist is that our insects have become resistant to **Malathion**, which is to give residual control of many insects. Many growers, I think would agree. The 2009 IPM-300 Stored Grains would be helpful. The web site is:

<http://www.aces.edu/pubs/docs/A/ANR-0500-A/VOL1-2009/smallgrains.pdf>

A few suggested steps to successful Grain Storage are: Clean and spray equipment before using it to harvest and handle your grain. After cleaning equipment spray it with a residual insecticide. There are many to choose from. Tempo 20 WP and Tempo SC Ultra are a good choice to start with. Clean and treat empty grain bins. When using fumigants it is extremely important to have bins air tight before and while treating. Here again there are many EPA labeled products to choose from. Wheat should be at 12 % moisture if storing for up to six months and 11 % if storing for 6 to 12 months. Treat the grain as it is loaded into the bin. Storcide II is a good choice. Or treat it in layers as it is loaded into the bin. Fumigants such as Phostoxin may be needed to knock down insect levels during the storage season.

Again this is a very short version on storing grain. There are many more products to choose from that are equally as good, but difficult to list in a short article.

## Deer and Wild Hogs

Both deer and wild hogs are on the increase and rapidly becoming our number one crop pest in Southwest Alabama. One grower reported that wild hogs can root up a row of corn with greater precision and in a straighter line than he could plant the corn with his Auto Steer Tractor.

Last month's news letter had an article on the **Deer and Hog Mega Fence**. A few growers in this area are up to the challenge and are trying the fence. This takes persistence and diligence. However, no grower can afford the loss that the deer and hogs are doing to their crops. Several growers have invited me to help build the fence, however each time unfortunately I had a prior commitment. There are many fence companies in our area. However, Mr. Royce Schneider in Walnut Hill has farmed all of his life, is now in the fence building business and has experience with the Deer and Hog Fence. He has also designed a few other deer and hog fences that are a little more expensive, but may be ones you as a grower would like to try. His contact is (850) 516-4749.

### **Soybean and Peanut Inoculants: May be More Important This Year**

The Auburn University Soybean Inoculant recommendation is to inoculate if out of soybeans 2 -3 years or more. The University of Georgia Peanut Inoculant recommendation is to inoculate your peanuts unless you have had peanuts on that same land 2 out of the last 5 years.

With the rain we have had many fields spent some length of time under water. Rhizobia bacteria are living organisms and require oxygen for survival. Prolonged periods of water saturation in fields can kill native rhizobia. The use of rhizobia bacteria is especially recommended for the adequate nodulation of peanuts and soybeans in these fields. Dr. Jim Beuerlein, professor of agronomy and soybean research and Extension specialist for Ohio State University says that "saturation and flooding for as little as two to five days will create an anaerobic soil environment that will kill most rhizobia". The short of this is that if your fields have been soaking for very long, inoculate your soybeans. Ohio State research also shows that for most soybean inoculant products a half bushel/A yield increase is profitable, and that yield increases from 2 to 7 bushels are common. Newer, high-efficiency strains of inoculants have the potential to out-produce existing soil bacteria; however, AU research conducted by Dr. Dennis Delaney in the last 2 years has not shown a statistically significant yield increase for inoculating soybeans planted on "old ground". If in doubt, the inoculants are relatively inexpensive so don't take the risk. The two main companies selling peanut and soybean inoculants in Southwest Alabama are Becker Underwood: [www.beckerunderwood.com](http://www.beckerunderwood.com) and EMD Crop Bioscience: [www.emdcropbioscience.com](http://www.emdcropbioscience.com).

Whether you or your retailer is inoculating your seed, also remember that the bacteria are living organisms and that high temperatures and many other seed treatments can kill them, especially fungicides, chlorinated water, and molybdenum. Be sure that the person treating your seed reads the package directions closely and follows them. This includes instructions on how far ahead of time mixing and treating can be done for particular inoculants and other seed treatments, and on the use of de-chlorinated water to dilute solutions. Keep inoculated seed cool, just like fresh inoculant, from the warehouse to the edge of the field, before planting.

#### **Soybean seedling diseases and their control:**

Remember to use seed-applied fungicides for no-till, cool or wet soils and when planting marginal quality seed.

Please check out the extension article from Mississippi State University to review information on soybean seedling diseases and their control. It also provides a list of soybean seed treatments that are available. <http://msucare.com/pubs/infosheets/is1167.htm>

Below are the criteria they suggest when determining the need for a seed treatment: A fungicide is suggested when any of the following exist:

- 1) Seed germination is less than 80 percent;
- 2) You observed stand problems from seedling disease in a particular field in the past;
- 3) You expect wet soils for prolonged periods when planting early (before May 15) or when planting late (when soil temperatures are high),
- 4) Wheat stubble or residue is present in the seedbed.

**Soybean Rust:** Soybean Asian Rust Sentinel Plots have been strategically located on the borders of Mississippi, Florida and the Gulf of Mexico. The purpose of these plots is to monitor Asian Rust and other diseases and alert soybean growers in making disease control decisions. These plots in Mobile, Baldwin, Escambia and Washington Counties are planted, have a good stand and are monitored weekly. There have been several changes this past year to the fungicides that will be and are now labeled for management of soybean rust. In this multi-state effort, Daren Mueller of Iowa State University has taken the lead to keep track of the constant changes. These are now posted on the soybean rust fungicide manual website: <http://oardc.osu.edu/soyrusti/> in Appendix B.

**Soybean Insects:** Early scouting of soybeans for insects is encouraged. The two insects of concern are thrips and the Three Cornered Alfalfa Hopper. Research conducted in several states shows that thrip damage to seedling soybeans have no affect on final yield. So only spray if the thrips are so heavy that you just can't stand it. The Alfalfa Hoppers in North Alabama last year were at such high numbers that in some fields they cut off the seedling soybeans much like a cut worm would. As the plants get older and tougher the Hopper simply girdles the stem, making the plant weak and sometimes lodge, or have few beans. We had significant Alfalfa Hopper girdling in Southwest Alabama last year.

## CORN

Getting up a good stand of corn this year has been a challenge. The first planting received 6 to 13 inches of rain and then the second received for 3 to 8 inches of rain. We are now into May and a few farmers are still planting a few acres this first week.

**Late Planted Corn:** The last few years several growers in this area arose to the challenge of planting corn into May and on into late July. Results were varied. Typically you can expect lower yields when planting late. When considering planting late the first step you need to take is contact your insurance company. They may have restrictions on late planted corn. Auburn University per say does not have a recommendation for late planted corn. We do offer suggestions. Those suggestions are to plant corn hybrids with heat tolerance and with excellent disease and insect packages.

## The Tillage Radish

There are two major limiting factors in row crop production in Southwest Alabama. The first is water. The second is sufficient organic matter in our soils. Most growers are farming with the latest technology, top varieties, fertility programs, and production practices. However, our soils due to the fact of their low organic content have limited our yields. The increased interest in cover crops is known as the "Cover Crop Craze".

Growers around the world are looking to cover crops to improve their organic matter and increase their yields. There is an endless list of cover crops and their advantages. This article is highlighting what we now term "The Tillage Radish". The first reason is because this 2009 year is the first year the seed of the tillage radish has become readily commercially available for growers in the United States. The second reason is the potential benefits the tillage radish may have to our growers.

This radish is called the tillage radish because it has a deep tap root that typically grows 2 inches in diameter and is 12 to 18 inches long. When this plant is killed or dies in the spring the tap root decays leaving a 2 inch hole in the soil that quickly allows the following crops roots to follow this loose soil crevice.

**Planting Date:** October 1 – 15 would be the optimum planting date. This would give more time for growth before the cold of winter.

**Seeding Rate:** The recommended seeding rate is 8 pounds when planted with a drill, Ten pounds or more when broadcast. Seeding depth is ¼ to ½ inches deep.

**Seeding methods:** Planting with a grain drill with a small seed attachment is the preferred method. The radish also does well broadcast or planted in rows. It also may be flown on by plane.

**Fertility:** The radish needs 60 pounds of Nitrogen in order to grow properly. This should be applied at planting or in the case of using broiler litter before planting.

**Killing before next crop:** The radish should be killed at least two or preferably three or more weeks before planting the next crop. It takes the high rate of Roundup typically 2 quart rate to kill the radish. Other methods are light tillage to just barely knock the top off of the radish root. This method works well also.

**Soil Benefits:** The tillage radishes have a "Green Tillage" effect by allowing you to prepare the seedbed with plants instead of steel. No piece of steel can benefit the soil structure like roots from a good cover crop. The tillage radish is one of the best. Dr. Randy Raper with the USDA tillage lab at Auburn University has conducted research with the tillage radish for a few years. His comments are, "Do not through away your para-till or row rippers just yet." The radish is not a cure all. However, the tillage radish could enhance a grower's program to improve their soil structure. The tillage radish may speed up the process. The decayed roots provide better soil aeration and much better water infiltration.

The tillage radish is known to add 5 tons of organic matter to the soil. Most cover crops deliver their benefits like a cover on top of the soil. The radish delivers its benefits to a 12 – 18 inch depth under the soil. This changes the whole living environment of the soil, increasing earth worm and microbial activity in this zone.

**Soil Nutrient Benefits:** The radish scavenges for nutrients deep in the soil profile and brings them closer to the soil surface for the following crops use. It is particularly good at scavenging Nitrogen, Phosphorous and Calcium. The radish will take up residual N in the fall left over by the following crop especially behind peanuts or soybeans. Radishes do need 60 lb. of N either as residual or applied in the fall. However, they will release this N in the spring to the following crop. Radishes are particularly good at taking up N from manures, and then releasing this N in the spring. This makes the radish unlike our typical rye, wheat or oat covers that require N for growth but do not rapidly resupply this N the next spring.

**Weed Control Benefits:** Over the winter the radish will out produce and suppress most winter annuals like henbit and chickweed.

**Nematode Suppression:** Research conducted with Dr. Kathy Lawrence, Auburn University Nematologist on Tim Tuckers Farm in Monroe County showed the radishes in this test, compared to fallow and all other cover crops to provide a 66 % reduction in nematodes in the following cotton crop. Continued research is being conducted by Dr. Lawrence and Dr. Edzard van Zanten with several different types of radishes to determine their nematode suppression benefits. This work is being conducted both at Tucker Farm and at the nematode research field in Huxford. This research is also being conducted at the University of Maryland. There are many varieties of radishes. At present the "tillage radish" is not known as the best variety for nematode control. However, it does provide some nematode control. The modes of control in each radish are being studied. Typically in simple language when plants like radishes in the brassica family decompose their decaying process releases a gas much like Cyanide that reduces nematode numbers in the soil. There will also be a foul smell in the field for a short time as the plants decompose.

**Increased Yields:** Of the crops that we grow in our area, corn and then cotton would be the two most likely to benefit from tillage radishes. The University of Maryland has done 3 years of research which has shown yield increases of up to 17 bushel per acre for corn and 7-9 bushel per acre increase for soybeans. In about a dozen site-years of research in which a good stand of radish cover crop was established in fall, the University of Maryland team saw significant yield increases about 50% of the time (but never significant yield decreases) compared to where no cover crop was planted. In side by side comparisons, some farmers have experienced a range of corn yield increases of 20-40 bushels per acre.

**Forage Potential:** In France and Germany this radish for years has been grown as forage for livestock and was known as the "Forage Radish". In those countries more interest has turned to the soil structure benefits of the radish than the forage benefits. They now call it the "Soil Structure Radish". The forage radish is reported to be of good forage value. Will deer like it? Dr. Don Ball, Auburn University Forage Specialist reported that 98 % of the acreage of the brassicas planted in the South is planted in deer food plots. His best judgment is that deer will like the radish also.

**Potential Problems:** Temperatures in the mid teens will kill the tillage radish. Hopefully the radish will have enough growth on it before we reach these temperatures.

**Wet Land:** The radish likes well drained soils. It will not grow on wet land.

**Diseases:** Dr. Austin Hagan, Auburn University Row Crop Pathologist reported "the tillage radish has no diseases that will cause a rotation problem for our present row crops. The radish itself will have very little disease problems during its growing season".

**As a weed:** To my knowledge no tillage radishes have been grown on farms up until now in Alabama. The closest area to us where growers have it on farms is Virginia. They and no other area have seen it to be a problem as a weed.

**Seed can be obtained from:** Bird Hybrids, LLC, in Tiffin, OH. 1-800-743-2473 [leon@birdhybrids.com](mailto:leon@birdhybrids.com), or Steve Groff Seeds, LLC, Holtwood, PA 717 575 6778 [sgroff@hughes.net](mailto:sgroff@hughes.net)

The cost not including shipping is around \$3.10 per pound.

For further information: <http://www.tillageradish.com>

Again, there is no simple recipe for farming. This article is given to you freely. There are endless ways to use cover crops. So as a grower, you may see that the "Tillage Radish" may have a fit on your farm. However, experiment, try them on a few acres and see how they work for you.

## Cotton Short List 2009

Here is the short list of cotton varieties promoted and available for Southwest Alabama. As you know there are many more good varieties to choose from. As a grower you may want to keep planting the varieties that have performed well on your farm and try a few of the new ones.

**Croplan Genetics Top Cotton Varieties For 2009: Mike Daughtrey 334-790-5190**  
[www.croplangenetics.com](http://www.croplangenetics.com)

**CG 3220 B2RF** is an early-mid, smooth leaf variety with excellent yield potential and premium fiber quality.

**Delta-Pine: Rod Higdon 251-701-6118** or for more information [www.Delta-Pine.com](http://www.Delta-Pine.com)

**DP 555BG/RR** is the standard full season variety for 2009

**DP 0924 B2RF** is one of the three new members of the Class of "09". It is an early to mid maturing variety that is very well adapted to short season growing environments with consistent high yield potential.

**DP 0935 B2RF** is the second member of the Class of "09". It is a mid-maturing variety with smooth leaf that performs well across a wide range of soils and management techniques. It has a nectarless trait for plant bug suppression with overall good fiber quality and high yield potential.

**DP 0949 B2RF** is the third member of the Class of "09". It is a more full maturing variety.

**FiberMax and Stoneville: Jerry Spivey 334-313-8036** [www.FiberMax.com](http://www.FiberMax.com)

**ST 5458 B2RF** is a mid season top yielder with Rootknot Nematode Resistance.

**ST 4498 B2RF** is an early season top yielder.

**FM 1845 LLB2** It is a mid season Liberty Link, Bollgard 2 that is high yielding, easy to manage and unsurpassed fiber quality. This is a good variety for growers fighting resistant pig weed.

**Phytogen: Al Wright 334-797-2927** [www.PhytoGenYields.com](http://www.PhytoGenYields.com)

**PHY 375 WRF** Early maturity WideStrike insect protection and Roundup Ready Flex, stacked variety with excellent vigor, broad adaptation, high yield potential and very good to excellent fiber quality.

This variety topped the On Farm Variety Test in Mobile County in 2008. It also topped the Fairhope Research Test Plot in 2008 and 2007 for the two year average.

**PHY 485 WRF** Early to mid maturity with broad adaptation and good to excellent fiber quality and grades.

### 2008 On Farm Cotton Variety Test For Southwest Alabama

*Cooperator:* Andy Thornberg, Mobile County  
*AGRI AFC:* Kelvin Stokes, Brad Meyers and George Huckabay  
*Regional Extension Agronomist:* Richard Petcher  
*Auburn University Cotton Agronomist:* Dr. Dale Monks

Preliminary Results			
	ENTRY	YIELD	
		(lbs seed cotton / acre)	
	PHY 375 WRF	3807	
	FM 1740 B2RF	3642	
	ST 5458 B2RF	3343	
	CG 3220 B2RF	3294	
	DPLX 07W902 DF (DPL 0924)	3209	
	DPLX 07W903 DF	3203	
	PHY 485 WRF	3185	
	ST 4554 B2RF	3141	
	MCS 0701 B2RF (DPL 0935)	3105	
	ST 5327 B2RF	3026	
	DPLX 07W590 DF	2977	
	DPLX 07W901 DF	2764	
	CG 3520 B2RF	2758	
	CG 4020 B2RF	2690	
	<i>Trial Type:</i>	side by side strips	
	<i>Planted:</i>	5/28/2008	
	<i>Harvested:</i>	11/17/2008	
	<i>Seeding Rate:</i>	42,000	
	<i>Row Spacing:</i>	30"	
	<i>Soil Series:</i>	Bama sandy loam	
	<i>Irrigation:</i>	None	

Appreciation is expressed to Andy Thornberg, AFC, the Alabama Cotton Commission and Seed Companies: Crop Lan Genetics, Delta-Pine, FiberMax, Phytogen and Stoneville.

For more information on these varieties as to how they performed in variety tests across Alabama.

[www.alabamacrops.com](http://www.alabamacrops.com)

Go to Variety Testing and then to cotton. The precise web site is:

<http://www.ag.auburn.edu/aaes/communications/agronomy/ay297cottonvar08.pdf>

Again, hope this information is helpful to you.

Sincerely,



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