

# Agriculture Newsletter



Volume 3 No. 7

April 28, 2010

## Crop Situation

**By: Eugene Terhune, County Extension Agent—Staff Chair**

The National Ag Statistics service is reporting rainfall behind previous years, however temperatures have been above normal. Some fields are getting dry and growers are waiting for a rain, before they continue planting. Rain is forecast for our state beginning Thursday evening through Saturday.

As of April 21, **corn** planting is winding down in the county. Statewide, corn was reported as 85 percent planted as of last week. Corn emergence is reported at 48 percent, which is 23 percent ahead of 2009 but the same as the five-year average.

A lot of **rice** has been planted this week in Woodruff County. Statewide, rice farmers had planted 53 percent of the rice crop by last week's end, 30 percent ahead of last year and 23 percent ahead of the five-year average. Rice emerged was at 16 percent, 13 percent ahead of 2009 and 9 percent ahead of the five-year average.

A few **soybeans** have been planted but most are waiting for this weekend's rain. Across the state, farmers planted an additional 8 percent of the soybean crop to reach 15 percent planted, 9 percent ahead of last year and 6 percent ahead of the five-year average. Soybeans emerged, at 5 percent, were 4 percent ahead of 2009 and 5 percent ahead of the five-year average.

**Cotton** planting began this week in Woodruff County. Across the state, farmers were able to get 9 percent of the cotton crop planted, 8 percent ahead of 2009 and 5 percent ahead of the five-year average.

Winter **wheat** was 5 percent headed at week's end, 30 percent behind last year and 34 percent behind the five-year average. Winter wheat was reported to be in mostly fair to good condition. Continue to scout for diseases this week (See page 6).

# Rice DD50 Program

By: Eugene Terhune, County Extension Agent– Staff Chair

The Rice DD50 program was developed to help rice farmers precisely time their production practices. The ability to predict growth stages, specifically internode elongation, reduces physical labor required to sample fields to determine accurate timing for the mid-season application.

The program not only predicts growth stages but will also help with timing of herbicide applications, when to scout for diseases and insects, and to time draining.

Growers can now enter their information via the intranet. Simply go to Extension Web page at <http://dd50.uaex.edu/dd50Logon.asp> then just follow the instructions.

If you want to send the information to the County Office for us to enter the information, you can still do so with the card and instructions below.

The factors that affect the accuracy of the DD50 program are as follows:

- Incorrect emergence date.
- Deviation from normal management (i.e. early or late flooding)
- Water seeded vs. dry seeded culture
- Differences in local weather from the four weather stations used to collect DD50 temperatures.
- Wrong variety
- Nutrient or herbicide stress
- Uneven emergence

After completing the form, **simply mail it to the Woodruff County Extension Office, 502 N. 3<sup>rd</sup> Street Rm. 122, Augusta, AR, 72006.** The following are instructions on how to complete your DD50 sheet:

## How to fill out the DD50 sheet:

- ◆ Please **print** your name and mailing address.
- ◆ Please fill in your phone number.
- ◆ Fill in the name of the **County where the rice acreage is located.** This is to insure that the correct weather data is used.
- ◆ If you wish someone else to receive an extra copy fill in the space provided.

There is space on the sheet to fill in information for ten fields. List the field name or

number that will allow you to identify the field and the variety. Fill in the emergence date.

## **Pay particular attention to emergence date!**

Emergence date as defined for the DD50 program is **when 8 to 10 germinated seedlings per square foot are barely visible above the soil surface and are less than 1 inch high.** The shoot will have a white tip before photosynthesis begins.

**For water-seeded rice**, emergence is when the shoots, not roots, reach one-half to three-quarters of an inch.

Remember that predictions of the DD50 program are only as accurate as you are at getting the correct emergence date. **Be sure to include the acreage of the field.**

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## **Weed Update**

By: Dr. Bob Scott, Extension Weed Scientist

For the last couple of years we have been doing plot work in Crittenden County, Arkansas looking at control options for glyphosate resistant horseweed in soybean. Much like in cotton, what we have discovered is that there are really no excellent options for post-emergence horseweed control in soybean in the absence of glyphosate. In these situations, success or failure of a weed control program begins at burn-down.

Glyphosate herbicide still brings a lot to the table in terms of weed control at burn-down. It is cheap, has a broad spectrum and has no plant back restrictions to speak of. Therefore, it is still economical to use glyphosate even in the presence of a resistant weed or two.

In the case of glyphosate resistant horseweed, Clarity or dicamba applied at 8 oz per acre is our best recommendation for horseweed control. Clarity should be applied at least 14 days prior to planting soybeans. The plant back interval begins after a 1-inch rain. If there is not enough time for the plant back interval you really only have a few options. These include: making time for the plant-back interval, working the field, or using a full rate of Ignite and good water volume for coverage and hoping for the best.

One new option is Sharpen herbicide, when applied at 1 ounce per acre, Sharpen will rapidly burndown horseweed, however, university data indicate that you will see a fairly rapid re-growth of horseweed, so an in-season option will be needed. There are a few options for post-emergence glyphosate resistant horseweed control in soybean.

For in-season horseweed control in Roundup Ready soybeans, the best product that we have looked at so far is FirstRate herbicide at 0.3 oz per acre tank mixed with a good crop oil concentrate at about 1.2 percent volume per volume. The maximum use rate of FirstRate per season is 0.6 ounces per acre and many times you may want to use it as a tank mix partner with glyphosate twice, under severe infestations. The smaller the horseweed the better for FirstRate, however under even ideal conditions 70-80 percent control may be the best you can hope for. This will at least make a crop and you will not lose the field to horseweed.

A good program approach for soybean prior to using FirstRate in-season is to use either

Valor or Synchrony XP pre-emergence if horseweeds have not emerged at planting. Both these products have provided around 30 days of residual on horseweed control in our plots.

While Synchrony will stunt the horseweed and provide some suppression POST, Valor has only residual activity. These products can also be used in a burn-down application with Clarity. This will provide both burn-down and residual control.

Several of you have asked about the new product Prefix (Dual + Reflex) from Syngenta, we have looked at this product on pigweeds and other summer annual broadleaf weeds and it looks excellent, however, I have not had that much experience with it on horseweed. It is included in my spring and summer trials this year. I believe that Prefix will provide residual control of horseweed in these trials.

Liberty Link soybeans and Ignite herbicide is the most dependable program for the control of glyphosate resistant weeds, including horseweed and pigweed.

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## **Corn & Milo Verification Weekly Update**

**By: Kevin Lawson, Extension Corn and Grain Sorghum Coordinator & Eugene Terhune, County Extension Agent Staff Chair**

The Corn and Grain Sorghum Research Verification Program (CGSRVP) is an on-farm demonstration of all the research-based recommendations required to grow corn and grain sorghum profitably in Arkansas. The specific objectives of the program are:

1. To verify research-based recommendations for profitable corn and grain sorghum production in all corn and grain sorghum producing areas of Arkansas.
2. To develop a database for economic analysis of all aspects of corn and grain sorghum production.
3. To demonstrate that consistently high yields of corn and grain sorghum can be produced economically with the use of available technology and inputs.
4. To identify specific problems and opportunities in Arkansas corn and grain sorghum production for further investigation.
5. To promote timely implementation of cultural and management practices among corn and grain sorghum growers.

This year, Kevin and I will be working with Adam Chappell on a 68-acre field in the Cotton Plant Area. I will be providing you a report on the progress of the field as we go through the season.

<b>General</b>	Corn fields ranged from just spiking through the ground to V5 stage. All fields are planted and off to a good start. Rains are needed in all fields and hopefully there will be no hail this weekend. Most of the activity this past week included weed control and some fertilization. The grain sorghum field is at V4 stage and was fertilized.			
<b>County</b>	<b>Hybrid</b>	<b>Stage</b>	<b>Height (in)</b>	<b>General Information</b>
<b>Corn</b>				
<b>Chicot</b>	Pioneer 2023HR	V5	9	Herbicide is activated in this field and weeds are being controlled. There was a problem with one of the nozzles on the knifing rig and there is some damage to a few rows. If it doesn't rain this weekend, we will begin irrigation.
<b>Craighead</b>	Pioneer 32D79	V3	3.5	2 qts of Atrazine plus 1 qt of Glyphosate was applied on the 16 <sup>th</sup> . Recommended applying 35 gallons (123 units) of UAN when possible.
<b>Desha</b>	DeKalb 64-83GENVT3P	V3	3	Field has a final plant stand of 33,300 plants per acre. 216 units of Nitrogen was applied this past week along with Atrazine and Glyphosate.
<b>Faulkner</b>	Terral REV28HR20			Field was planted on the 16 <sup>th</sup> and counts will be done next week.
<b>Greene</b>	Pioneer 33D49			Field was planted on the 13 <sup>th</sup> and emergence was the 22 <sup>nd</sup> . Stand counts will be done next week.
<b>Mississippi</b>	Pioneer 33D49			Field was planted on the 14 <sup>th</sup> and emergence should be close to the 23 <sup>rd</sup> . Stand counts will be done next week.
<b>St. Francis</b>	DeKalb 64-83GENVT3P	V3	4	1 qt of Atrazine plus 1 qt of Glyphosate was applied on the 17 <sup>th</sup> . Will look at fertilize next week.
<b>Grain Sorghum</b>				
<b>Woodruff</b>	Pioneer 84G62	V4	3	Field was fertilized on the 21 <sup>st</sup> . Will scout next week and talk about weed control.

# Stripe Rust Alert

By: Dr. Rick Cartwright, Extension Plant Pathologist

At least two new races of the stripe rust fungus appear to be in Arkansas and are causing severe stripe rust on several varieties that were resistant in previous years.

One widespread race overcomes the resistance in **Armor Renegade**, but this race appears to be different from the race that overcomes the resistance in **26R87**. This conclusion is based on observations in demo plots planted by Pioneer Hi-Bred International, Inc. and Lance Kirkpatrick, county agent in Logan County. In these plots,

Renegade has severe stripe rust throughout the entire 1.2-acre strip, but 26R87 is clean except for one big hot spot of stripe rust that can be seen from the road. This hot spot was about 20 feet in diameter last week and appeared to be spreading quickly. Weather for the next few days will be favorable for stripe rust, and stripe rust likely will continue to spread quickly in fields of susceptible varieties.

Observations of plots in the Arkansas Wheat Variety Performance Test at the Vegetable Substation at Kibler confirmed that Renegade was very susceptible and that 26R87 was susceptible stripe rust.

**AGS 2060** and **Delta King 9577** also appear to be susceptible whereas they had been resistant and moderately susceptible, respectively, in previous years. Preliminary stripe rust reactions for varieties in the Variety Test at Kibler are listed in Table 1 in alphabetical order. Varieties known to have different reactions to the new races are in larger bold font. Additional changes may be added in the next few weeks after the new races become more uniformly distributed throughout the research plots across the state.

## Advice for dealing with stripe rust

Scout your wheat fields **NOW** especially if you have a variety rated susceptible to stripe rust. Also estimate the yield potential of your fields. The return on a fungicide application depends in part on the yield potential of the field, that is, the higher the yield potential, the easier to make money from a fungicide application. However, stripe rust is the foliar disease that is most likely to have a big impact on yield. Yield losses likely will be about 5 percent on varieties rated susceptible that have numerous hot spots of stripe rust visible from the road at boot stage.

Although there are minor differences among fungicides for efficacy against stripe rust, all registered fungicides are effective, higher rates give better control than lower rates, and proper timing can be more important than choice of fungicide or rate.

Cost is another important factor, but actual cost is difficult for us to determine. A fungicide application before stripe rust spreads to flag leaves will protect against most of the potential yield and test weight losses, but no fungicide can undo damage that is already done.

Depending on the rate of fungicide and disease pressure, an application at full boot to early heading likely will protect the upper leaves and heads for two to three weeks, and by this time the stripe rust season should be over and most of the potential losses avoided.

Losses on very susceptible varieties under circumstances described above could be greater than 50 percent, and one fungicide application likely will not be sufficient to obtain acceptable yield and test weight. This is why varieties that are very susceptible to stripe rust should never be planted in Arkansas.

## Other diseases

Barley yellow dwarf (BYD) appears to be widespread, but it is too early to estimate its impact on yield across the state. Plants with stiff, upright, yellow (or purple) leaves likely are affected by BYD. Plants with noticeable stunting likely will have a significant yield and test weight loss compared to nearby healthy plants. Nothing can be done about BYD now.

Downy mildew is noticeable in wet spots with poor drainage. Look for stunted plants with yellowish, thick, leathery leaves. These plants either will develop no heads or twisted heads with no grain (crazy top). Nothing can be done about downy mildew now.

Some leaf blotch and powdery mildew were observed, but these diseases do not appear serious at this time.

No leaf rust or stem rust have been reported so far in Arkansas.

**Table 1. Reaction of wheat cultivars in Arkansas to Stripe Rust Disease, 2010.**

Variety	Reaction	Variety	Reaction	Variety
26R15	MR	Dixie Bell 2100	MS	Terral 821
26R20	MS	Dixie Bell 2125	R	Terral 8558
26R22	MR	Dixie Bell 2150	MR	Terral 8559
<b>26R87</b>	<b>S</b>	Dixie Bell 7440	R	Terral LA 841
AGS 2026	R	Dyna-Gro 9922	S	USG 3201
AGS 2031	R	Dyna-Gro Baldwin	R	USG 3295
AGS 2035	R	HBK 3266	S	USG 3438
AGS 2055	R	Jamestown	R	USG 3555
<b>AGS 2060</b>	<b>S</b>	Legacy 117	R	USG 3665
<b>Armor Renegade</b>	<b>VS</b>	Legacy 303	R	
Croplan Genetics 554W	S	Legacy 410	R	
Croplan Genetics 8302	R	Merl	R	
Croplan Genetics 8925	S	Pat	MR	
Delta Grow 1600	MR	Progeny 117	MR	
Delta Grow 5000	R	Progeny 125	R	
Delta Grow 5900	S	Progeny 166	R	
Delta Grow 8300	R	Progeny 185	S	
<b>Delta King 9577</b>	<b>S</b>	Roane	S	
Dixie 427	R	Syngenta Beretta	R	
Dixie 454	MS	Syngenta Coker 9553	R	
Dixie 907	R	Syngenta Coker 9804	R	
Dixie 940	S	Syngenta Magnolia	R	
Dixie Bell 2100	MS	Syngenta Oakes	R	