

# ARKANSAS RICE



Dr. Chuck Wilson, Dr. Bob Scott, and Dr. Rick Cartwright

**May 6, 2010**

**No. 2010 – 3R**

**INTRODUCTION** – This is the third issue of the Arkansas Rice Newsletter for the 2010 production season. If you know of someone who would like to be added to the e-mail list, please send an e-mail to: [cwilson@uaex.edu](mailto:cwilson@uaex.edu).

I am trying to learn how I can use some new communication technologies. I have set up a blog to distribute information in addition to the newsletter. If you are interested, you can visit the blog at <http://arkansasrice.blogspot.com>

**CROP CONDITION AND STATUS** – The weather this spring has allowed rice to be planted across most of the state at record pace. As of May 2, farmers had planted an estimated 90% of the rice acreage. This compares to 81% last week and only 60% this time last year. It is also well ahead of the 5-year average of 70% for this week. The USDA estimates that 61% of the rice acreage has emerged. This compares to 27% last year at this time and 39% for the 5-year average. Our planting progress is 2-3 weeks ahead of the 5-year average and a month ahead of last year. As of May 2, 16% of the crop is reported to be in excellent condition, 45% good, 35% fair, and 4% poor.

Severe storms and rainfall pounded the rice-growing region of Arkansas over the weekend. Rainfall over the weekend ranged from as little as 0.25 inches in Southeast Arkansas to as much as 11 inches in parts of Northeast Arkansas. Levees are washed out and floods are as much as 8-10 feet deep in some fields in river bottom lowlands. Time will tell the impact this has on the crop and the need for re-planting. Hail also impacted some rice in parts of Central Arkansas.

While much of this rice was clipped near the soil surface, it should recover. Delays in flooding and maturity may cause increase expenses for these fields.



Average temperatures were near normal ranging from 5 degrees below normal at Booneville to 2 degrees above normal at several locations for the week ending May 2. Low temperatures ranged from 35 degrees at Fayetteville to a high of 89 degrees at Camden and El Dorado. Rainfall for the week ending May 2 ranged from a low of 0.1 inches at Fort Smith to a high of 8.4 inches at West Memphis. Overall, soil moisture supplies were 7% short, 69% adequate, and 24% surplus.

The USDA planting intentions report that was released at the end of March shows that rice acreage is expected to increase by 10% from 2009. The anticipated acreage of 1.631 million acres is the largest acreage since 2005 when we planted an estimated record 1.635 million acres. Medium grain rice for Arkansas is estimated at 200,000 acres, a decrease of 60,000 acres from 2009.

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**PREFLOOD NITROGEN FERTILIZER** – It’s only the first week of May and the earliest fields are now approaching time for pre-flood fertilizer. The rain can create some problems for growers as it becomes time for pre-flood fertilizer but we have experienced good drying conditions between rains so far this spring. Urea should be applied to rice onto dry soil prior to establishing the permanent flood. Agrotain should be used with the urea to reduce volatilization losses unless the field can be flooded in less than 2 days.

If the fields are wet when the pre-flood urea needs to be applied, the best option is to wait until the soil dries. A delay of up to 10 days after the last DD50 recommended date is better than applying the urea into muddy soil or directly into the floodwater. If it becomes necessary to apply the urea to muddy soil, apply Agrotain-treated urea to the soil and flood up as soon as possible. The least effective method of applying pre-flood nitrogen is directly into the flood, even if Agrotain is used. While several growers have made excellent rice by spoon-feeding into the flood, this is the least efficient method and generally requires more urea to maximize yields. The recommended fertilizer rates and timings for the most commonly available rice varieties in Arkansas are listed below.

Variety	Nitrogen Recommendation <sup>z</sup>			
	Total N Rate (lbs N/A)	Preflood N Rate (lbs N/A)	Midseason N Rate <sup>y</sup> (lbs N/A)	Late Boot N Rate <sup>x</sup> (lbs N/A)
Bengal	150	105	45	
Catahoula	150	105	45	
Cheniere	150	105	45	
CL 111	150	105	45	
CL 131	135	90	45	
CL 142AR	150	105	45	
CL 151	120	90	30	
CL 171AR	135	90	45	
CL 181AR	135	90	45	
Cocodrie	150	105	45	
Cybonnet	150	105	45	
Della	110	65	45	
Drew	135	90	45	
Francis	150	105	45	
JES	120	75	45	
Jupiter	150	105	45	
Neptune	135	90	45	
CL XL 729	120	90	0	30
CL XL 745	150	120	0	30
XL 723	120	90	0	30
Roy J	135	90	45	
Taggart	150	105	45	
Templeton	135	90	45	
Wells	150	105	45	

These recommended rates are for rice following soybeans in rotation. For other rotations, consider the following:

1. Increase early N rate by 30 lbs/A if rice is grown on clay soils.
2. Increase early N rate by 20 lbs/A if:
  - i) rice follows RICE in rotation
  - ii) the stand density if < 10 plants per sq. ft.
3. Increase early N rate by 10 lbs/A if rice follows GRAIN SORGHUM, WHEAT, CORN, or COTTON in rotation
4. Decrease early N rate by 10 lbs/A if:
  - i) rice follows SETASIDE or FALLOW that is not continuously tilled in rotation
5. Omit early N rate if:
  - i) rice follows FISH, LONG-TERM PATURE, or FIRST YEAR AFTER CLEARING in rotation.

<sup>z</sup>Nitrogen rate for rice on silt loam soils following soybean in rotation. Rates may need to be adjusted for soil factors, thin stands, and other rotational crops.

<sup>y</sup>Midseason N may be applied in a single application between beginning internode elongation and 1/2 inch internode elongation.

<sup>x</sup>The midseason N application for these hybrids should be applied at boot rather than at internode elongation. Refer to the DD50 for proper timing of this application.

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Management of pre-flood nitrogen is most important for determining overall yield potential. If this application is not managed as well as possible, it is very difficult to make up for the mistake at mid-season.

## **RICE RESEARCH AND EXTENSION CENTER OPENS NEW LAB AND OFFICE** (Elizabeth Fortune)

The ribbon was cut April 15 as part of the dedication ceremony for the new 34,000-square-foot facility at the University of Arkansas Division of Agriculture's Rice Research and Extension Center, or RREC, near Stuttgart.

The new facility includes an auditorium named the Arkansas Rice Farmers Conference Center, an office wing, laboratory wing and an adjacent field lab building. The conference center was named to affirm that the RREC and its personnel are dedicated to meeting the needs of rice farmers and their communities.



Participating in the dedication program was University of Arkansas System Board of Trustees Chairman John E. Anthony, U of A

System President B. Alan Sugg, Arkansas Secretary of Agriculture Richard Bell and U of A Vice-President for Agriculture Milo Shult.

Funds for the \$12.4 million project included a \$2.3 million contribution from the Arkansas Rice Research and Promotion Board on behalf of rice farmers, \$6 million from the Arkansas Higher Education Technology and Facility Improvement Act, and the balance from Division of Agriculture reserve funds.

For more information about the Rice Research and Extension Center, visit <http://aes.uark.edu/rice.html>.

## **RICE RESEARCH VERIFICATION PROGRAM** (Stewart Runsick & Ralph Mazzanti)

All of the Verification fields have been planted and as of last week, all but five have emerged. Fields that had not emerged last week should be emerged this week following the recent rainfall. Below is a list of the fields, varieties, seeding date and emergence date. A general description of the fields also describes the most recent observations and recommendations for each field.

### **General Information:**

**Clay County** – The field was seeded in CL XL 745 at 26 lbs/acre. Command was applied. Potash was applied (100 lbs/acre) was applied to 1/3 of the field. As of last Friday, the rice had not emerged.

**Cross County** – Clearpath was applied 11 days ago, but adequate rainfall was not received to fully activate the herbicide. Flushing began last Monday, but the well went down. The field

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received heavy rainfall and flooding last weekend. barnyardgrass, signalgrass, yellow nutsedge and coffeebean were the most common weeds present last week. The herbicide should control these weeds and I expect it to be in good shape this week.

County	Variety	Seeding	Emergence
Arkansas	CL XL 745	2 April	15 April
Ashley	CL XL 745	12 April	18 April
Chicot	CL XL 729	15 April	1 May
Clark	CL 151	1 April	12 April
Desha	CL 151	12 April	1 May
Drew	CL XL 745	14 April	1 May
Jefferson	CL XL 745	17 April	
Lafayette	CL XL 745	12 April	
Phillips	CL XL 729	12 April	27 April
St. Francis	Wells	12 April	24 April
Clay	CL XL 745	20 April	
Cross	CL 142	2 April	15 April
Greene	CL 151	12 April	26 April
Jackson	CL XL 745	12 April	24 April
Lawrence	CL 142	15 April	28 April
Lonoke	Cheniere	26 March	11 April
Mississippi	CL XL 745	15 April	29 April
Poinsett	CL 151	19 April	
Poinsett	Wells	15 April	27 April
Prairie	Jupiter	31 March	12 April
Randolph	Wells or	9 April	20 April
White	CL XL 745	20 April	

**Greene County** – Stand counts taken last week indicated 14 plants/ft<sup>2</sup>. Volunteer rice and some red rice were also present. After finally getting the soil test results, we recommended Newpath (4 oz/acre), 100 lbs/acre DAP (18-46-0), and 100 lbs/acre Potash.

**Jackson County** – Newpath + Command were applied last week. Scattered grass and some red rice was present in the field. Emergence

was not uniform in this field, but we should have a good stand this week following the rain.

**Lawrence County** – The rice has emerged and the field is still clean. We will probably recommend Newpath this week.

**Lonoke County** – The Command is still holding in this field. Some scattered signalgrass and yellow nutsedge present. We will probably make a herbicide recommendation this week in preparation for the nitrogen and flood.

**Mississippi County** – Most of the rice has emerged. However, rainfall was needed in order to complete the stand. The field got over 7 inches of rainfall this past weekend. The field was clean following the second glyphosate application. It should be in good shape now.

**Poinsett County (Truman)** – Most of the rice has emerged. However, rainfall was needed in order to complete the stand.

**Poinsett County (Harrisburg)** – The field was seeded in CL 151 at 72 lbs/acre. 12.8 oz/acre of Command was applied. 0-40-60 was applied on half of the field and 0-60-90 on the other half according to soil test results. As of last week, the rice had not emerged.

**Prairie County** – The field was clean last week following the herbicide application.

**Randolph County** – Some scattered grass is being observed in the field, but no worse than the previous week. We decided to wait a week and see if some more weeds come up. The Command is activated now and should help out. We should be able to clean up the field with Facet, Propanil and Permit, but would like to make only one application.

**White County** - As of last week, the field had not emerged. There was a lot of broadleaf signalgrass present. The first Newpath application will be applied this week.

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**Arkansas County-** The field was seeded in CL XL 745. Command was applied at .7 pt/acre plus Facet at .33 lb/acre and 1 qt oil/acre. The stand density is 10 plants/ft<sup>2</sup>. Rice is now at 2-3 leaf stage. Rice is now being flushed.

**Ashley County-** The field was seeded in CL XL 745. Phosphorus and potassium (0-60-75) was applied prior to planting. We are unable to use Facet or Command because of the field's proximity to town. Seeding rate was 19 lbs/acre. Stand counts indicate 4 plants ft<sup>2</sup>.

Barnyardgrass, dayflower and morningglory have emerged. We applied Newpath (4 oz/acre), Permit (0.5 oz/acre), Aim (0.33 oz/acre) and crop oil (1 qt/acre).

**Chicot County-** The field was seeded in CL XL 729 at 27 lb/acre following application of 1.5 pt/acre of Roundup for burndown. The stand density is low (4 plants/ft<sup>2</sup>) but manageable. High salt content is affecting stand emergence. Field is now being flushed. The field received only 0.3 inch rain last week.

**Clark County-** The field was seeded 31 March in CL 151. The stand density is 19 plants ft<sup>2</sup>. Rice is at 2-3 leaf stage. Barnyardgrass and signal grass are emerging. Clearpath was applied at .5 lb/acre with propanil (1 qt/acre). The field received 1.3 inches rain last week.

**Desha County-** The field was seeded with zinc-treated CL 151 on 12 April at a rate of 90 lb/acre. Due to dry weather, the field does not have a good stand yet. Weekend rain should help with emergence.

**Drew County-** The field was seeded 14 April with Jupiter. Command was applied at 1 pt/acre with 0.33 lb/acre of Facet. The stand density is 16 plants ft<sup>2</sup>.

**Jefferson County-** CL XL 745 was seeded at a rate of 25 lbs/acre one half the field 17 April and the other half on 23 April. We should have stand this week following the rainfall this past weekend.

**Lafayette County-** The field was seeded April 12 in CL XL 745 at 24 lb/acre. Command was applied at 1.6 pt/acre and flushed in.

**Phillips County-** The zero grade field was seeded 12 April in CL XL 729. The stand density is 10 plants/ft<sup>2</sup>. Rice is at 2-3 leaf stage. Clearpath was applied last week and the field is being flushed. Two leaf signal grass, sprangletop and nutsedge had emerged. Red rice is spotty.

**St. Francis County-** The stand density is 18 plants/ft<sup>2</sup>. Rice is now at 2-3 leaf stage. Command at 12.8 oz/acre and 4 qt/acre Super Wham seems to be holding grasses well. Field received 2.8 inches rainfall last week.

## UPCOMING EVENTS

Delta Classic Scholarship Golf Tournament – Helena Country Club – July 30, 2010. Contact: Dr. Robert Bacon (479-575-2354)

Rice IPM/Consultants Meeting – Wayne Davis Shop – Jackson County Road 272 – Amagon, AR – May 7, 2010 – 12:00 pm. Contact: Rick Thompson (870- 578-4490)

Rice Field Day – Rice Research and Extension Center – Stuttgart, AR – August 11, 2010. Contact: Dr. Chris Deren (870-673-2661)

Pine Tree Biofuels Field Day – Pine Tree Branch Experiment Station – Pine Tree, AR – August 5, 2009. Contact: Roger Eason

## Other Field Days

Progeny Rice and Soybean Field Day – Wynne, AR – July 22, 2010

## ACKNOWLEDGMENTS:

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We sincerely appreciate the support provided by the **Arkansas Rice Research and Promotion Board** for this publication.

The authors greatly appreciate the feedback and contributions of all growers, county agents, consultants, and other rice industry people.

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