

ARKANSAS RICE



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

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INTRODUCTION – This newsletter is distributed during the growing season to provide updates on rice progress and problems. 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.

CROP CONDITION AND STATUS – Because of the extensive rain and flooding, rice planting is a couple of weeks behind normal. As of May 12, farmers had planted an estimated 68% of the rice acreage. This compares to 55% last week but we had planted 86% by this time in 2007, and 5-year average of 90%. An estimated 42% of the crop has emerged. This compares to 21% last week, 69% in 2007, and 5-year average of 74%.

Average temperatures were 0 to 2 degrees below normal for the week ending May 12. Rainfall for the week ending May 12 ranged from a low of 0.1 inches at Eudora to a high of 2.1 inches at Stuttgart and 2.6 inches at Mountain Home. Rainfall totals for the year are as much as 23 inches above normal in North Arkansas but are 2 to 7 inches below normal in Southeast Arkansas. Overall, soil moisture supplies were 1% short, 58% adequate, and 41% surplus.

Several fields that are intended to be planted in rice are still flooded. Rainfall continues to keep some fields too wet to plant. However, the frequent rainfall has helped the activity of the residual herbicides. Over the past week, I have had reports of salt injury, lespedeza worms (grape colaspis), chinch bugs, and seedling disease (presumably pythium). The cool wet weather has not allowed the crop to grow very

well. We need some warmer, dryer weather to help the crop grow.

RICE DD50 PROGRAM—The DD50 program has been updated for the 2008 growing season and is available at <http://dd50.uaex.edu>. If you choose to not use the internet, enrollment cards can be submitted to your local county Extension agent and they will send you a report as has been done since the program originated. This program can be very helpful in time and labor management for your rice crop. It predicts the timing of 30 critical stages and management practices throughout the growing season. These predictions include timing for nitrogen fertilizer application, herbicide timings and cutoffs, midseason growth stages, scouting periods for insects and diseases, irrigation termination, and harvest. To enroll, the field size, variety, and emergence date are needed. Farmers are encouraged to enroll all fields, or at least all acres, even if several fields have the same variety and emergence date. The information generated from this program is useful to farmers but also helps the industry in preparation for harvest. It provides an estimate of harvest dates and variety distribution by county that the mills can use to “gear up” as the harvest season begins.

For more information contact your local County Extension office. (Chuck Wilson)

PLANTING DATES – With 30% of the crop left to plant and the calendar approaching May 20, we are reaching decision time. Drastic conditions require drastic measures. However, not everyone is in that condition YET. Table 1 shows estimated yield potential in a given planting window. You can expect about 10%

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yield loss when planting in late May. The yield loss drops to 20 to 30% in June. While this yield loss

Table 1. Predicted relative yield potential for drill seeded rice in central Arkansas by seeding date.

Relative Yield Potential	Actual Yield Potential	Seeding Date Range	
%	bu/A	Begin	Cut-off
95.0 - 100.0	166 - 175	March 23	May 20
90.0 - 94.9	158 - 165	May 21	June 1
85.0 - 89.9	149 - 157	June 2	June 11
80.0 - 84.9	140 - 148	June 11	June 18
70.0 - 79.9	123 - 139	June 19	June 30

† Actual yield potential is based on a 100% relative grain yield of 175 bu/A at 12% moisture.

In the past, we have provided cut-off dates for specific varieties. We have moved away from those types of recommendations and now provide more general guidelines for late planted rice. In general, late planted rice is anything planted beyond May 10 in northern Arkansas, May 15 in central Arkansas and May 20 in southern Arkansas.

Specific variety recommendations for late seeded rice (June seeding dates) should be made on yield performance in seeding date studies, disease ratings, seed availability, and planned seeding date.

Although specific cut-off dates for each variety are no longer given, some general recommendations can be obtained from planting date studies and disease ratings. Of the current available varieties that have been tested in seeding date studies, Bengal, Jupiter, Wells and the hybrids are recommended for late planting. Francis can be added to this list for some growers because it yields very well planted late. **HOWEVER**, be careful planting Francis late in areas

where an adequate flood may not be possible. Francis is very susceptible to rice blast and this disease tends to be more likely for late planted rice. I would definitely not plant Francis after May 15 if I had any questions about my ability to maintain a good flood. I have limited data on Cheniere but my limited experience is that it is not a bad planted late as Cybonnet or Cocodrie. There are certain varieties that historically do not perform well planted late and should be avoided. Examples include CL 161, CL 171 AR, Cybonnet, Cocodrie, and all very early season varieties, such as Spring. In general, "our best varieties are our best varieties planted late".

When is the absolute last day to plant rice? Well, it depends. What are your alternatives and how do they compare to June planted rice? It may be June 1 if your alternatives are more economical than rice. However, for most varieties, rice planted after June 20 is very unlikely to mature in the fall. I have planted rice around July 1 a couple of times but have never gotten it to mature enough to harvest.

WATER-SEEDED RICE

With all of the wet fields, and more rain currently on the way, many are considering water-seeding to get the rice planted. There are a couple of things to think about if this is something you are considering. First, pre-soaked seed works best. It is easier now than in the past since rice is packaged in the super bags. The seed should be soaked for 24-48 hours and drained for 24-48 hours prior to flying onto the field. This gives the rice a head start and allows it to germinate in warmer temperatures than in the cold field water. After the rice gets a leaf about 1" long and is beginning to put out roots, the flood should be removed (if possible) to allow the rice to peg down. If the rice is water seeded for stand establishment, it is possible to allow the field to drain down and treat the field as a dry-seed field from this point on. This

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makes weed and fertilizer management much easier and more effective.

One of the problems with some of these fields is that they are flooded and have no levees. That's OK for zero-grade fields but not for contoured fields. Without levees in place it will be difficult to manage the water and may result in significant seedling drift. So while it may be tempting to water-seed these fields, caution should be used.

NITROGEN MANAGEMENT

A few of the early planted fields will soon be ready for pre-flood fertilizer. I have had some questions about cutting nitrogen (N) fertilizer rates since the cost is so high. There are ways to potentially cut N fertilizer but it will be much easier in the near future when a Nitrogen Soil Test is unveiled. Until then, we have to depend on our current knowledge to determine nitrogen fertilizer rates.

Remember that nitrogen is the fuel. It is the most important fertilizer nutrient and will have a major impact on yield if not managed properly. Our rate recommendations are based on variety response to nitrogen fertilizer at different locations and different years. The recommendation is the average of the lowest fertilizer rate that gives the highest yield. For example, some years it may require 120 lbs N/acre for CL 171 AR and some years it may require 150 lbs N/acre to achieve the best yield. The recommendation is 135 lbs/acre (the average of 120 and 150). This should demonstrate the variability and flexibility in nitrogen fertilizer. We also tend to be conservative because we do not want to

recommend too much and cause a lot of lodged rice.

With that in mind, I know that many farmers adjust our recommendation based on their experience on their farm. That is the way it should be. However, if growers are interested in cutting fertilizer rates, two things should be considered.

First, use Agrotain. This product has had a major impact on N efficiency for Arkansas rice production. Without this product, nitrogen losses were significant and farmers were always behind when the rice reached midseason. With Agrotain, it is possible to get the kind of fertilizer efficiency that we see in research plots and are less dependent on midseason N.

Second, look at midseason N. If I am interested in cutting fertilizer rates, then cut the midseason N. I will have little impact on yield if I cut back on midseason N but I will have a major impact on yield if I cut pre-flood N. The pre-flood N sets the yield and must be done right. Apply to dry soil, with Agrotain, flood as quick as possible, hold the flood for three weeks, etc. If any of these conditions can not be met, then the dependency on midseason N will remain high.

If I had my mind made up to reduce nitrogen fertilizer rates, I would probably increase my pre-flood N rate by about 20 lbs N/acre and cut out the midseason. However, I would only do this on fields that I have good management capabilities (see previous paragraph).

RICE RESEARCH VERIFICATION PROGRAM

(Stewart Runsick & Ralph Mazzanti)

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Recent timely rainfall across the state this week has been perfect for keeping the pre-emergence herbicides active. All but four of the verification fields are planted. Several of the fields are reaching the 2 – 3 leaf stage. The first application of Newpath will be going out next week on a few fields. Below is a summary of the fields.

South

Lee - This was the 1st verification field planted in 2008. The field was seeded on 27 March in Francis at a rate of 120lbs/acre. The emergence date was 25 April. The field was sprayed with Roundup 3pts+2.4pts Prowl H₂O, Good job on burn down and the Prowl seems to be holding so far. Command was not used due to recent leveling. Stand Counts were 34 plants/ft².

Drew - Planted on 13 April in RT CL XL729 Blend at 53lbs/acre. Applied Roundup-1qt+command+1.33pts Command+3/4oz Permit pre and seems to be working well. The field received 0.9 inches rainfall.

Prairie - Planted 23 April in Cocodrie at 2.1 bu/acre. Command was applied at a rate of 12.8 oz/acre. Field received 0.9 inches rainfall. Stand counts indicate 28 plants/ft².

Jefferson – The field was water seeded on in RT CL XL730 at a rate of 30 lbs/acre on 4/24. The water was held on the field for 7 days. The field has now been drained. Rice has pegged and looks good.

Ashley - Planted 25 April in Cocodrie at rate of 105 lbs/acre. Command was applied at a rate of 1.6pts/acre. The field is not emerged but received 0.9 inches rainfall. Weeds emerged

include coffeebean, morningglory and yellow nutsedge.

Arkansas - (Stuttgart) Seeded in Francis at a rate of 85lbs/acre. Stand counts taken last week indicate 27 plants/ft². The field received 0.6 inches rainfall. The emergence date was 4/28

Arkansas – (Dewitt) A 139 acre field planted on 5/5 in CL 171. The seed was treated with Dermacor X-100. The producer left an untreated check in the field to evaluate grape colaspis control.

Lincoln - Planted 22 April in RT CL XL729 at a rate of 60lbs/acre. The emergence date was 5/3. Stand counts indicate 20 plants/ft². The command is holding the grass so far, but broadleaf weeds are emerging.

Clark – This was the last southern verification field to be planted on 5/6 in CL 171 at 70 lbs/acre. Command was applied at a rate of 12.8 oz/acre.

Lonoke – The field was seeded in Francis. The emergence date was 5/5. Stand counts indicate 32 plants/ft².

Summary

County	Variety	Planted	Emerged
Arkansas - DeWitt	CL 171 AR	5/5	
Arkansas - Stuttgart	Francis		4/28
Ashley	Cocodrie	4/25	
Clark	CL 171	5/6	
Drew	CL XL 729	4/13	
Jefferson	CL XL 730	4/24	
Lee	Francis	3/27	4/25
Lincoln	CL XL 729	4/22	5/3
Lonoke	Francis		5/5
Prairie	Cocodrie	4/23	

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North Arkansas

Clay – This field had planned to be planted in corn, however like many fields this year got changed to rice. The field was planted in Francis on 30 April at a rate of 75 lbs/acre. Command at 12.8 oz + Facet at .33 lb/acre was applied ahead of the rain.

Craighead – The Craighead county field is a zero grade 12 acre field in the middle of cotton fields south of Lake City. 150 lb/acre of Wells was flown on and scratched in on 7 April. The field came up to a nice stand on 20 April with 28 plants/ft². Facet and Prowl was applied and the field is very clean. The field is in the 3 leaf stage.

Crittenden – This field was recently leveled and was in cotton last year. Wells was seeded and was supposed to be 115 lbs/acre. After taking stand counts it was obviously heavier than that. Last week averaged 35 plants. Facet and prowl was applied five days after planting. Lots of 1 leaf signalgrass purple and dieing. 100 lb acre of potash and 1 gallon of liquid zinc applied.

Lawrence – Zero grade field planned to be seeded in RT CL XL 729.

Lonoke – Planted 30 April in RT CL XL 730.

Mississippi – Planned to be seeded in Wells.

Poinsett- Has been under water and is still wet.

Pope – Zero grade field planted in RT XL723 at a rate of 58lb/acre. Command at 12.8 oz + Facet at .25 lb acre scheduled to be applied.

Prairie – Seeded in Cybonnet and emerged 24 April. Stand counts last week indicated 22 plants/ft². The field covered in 1 leaf signalgrass. 12.8 oz/acre of command + 3 qt/acre applied last week. The field is clean.

Randolph – Planned to be planted in RT XL723

St. Francis – The field was seeded with an air plane at a rate of 4 bu/acre and scratched in.

Woodruff – Planted in RT CL XL729 on 14 April, not in 723 as indicated in last week's newsletter. 8 oz/acre of Command applied by air. Emergence date was 28 April. The stand count taken last week was 7 plants/ft². Newpath scheduled to be applied next week.

Summary

County	Variety	Planted	Emerged
Clay	Francis	April 30	
Craighead	Wells	April 7	April 20
Crittenden	Wells		
Lawrence	CL XL 730	Not Planted	
Lonoke	CL XL 730	April 30	
Mississippi	Wells	Not Planted	
Poinsett		Not Planted	
Pope	RT XL 723	April 30	
Prairie	Cybonnet		April 24
Randolph	RT XL 723	Not Planted	
St. Francis	Wells		
Woodruff	CL XL 729	April 14	April 28

UPCOMING EVENTS

Delta Classic Scholarship Golf Tournament – July 18, Helena Country Club

Field Day – Southeast Research and Extension Center – Rowher – July 24, 2008

Rice Consultant Training – Lake Hogue, Weiner, AR, August 1, 2008

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Rice Field Day, Rice Research and Extension
Center, Stuttgart, AR – August 13, 2008

For more information, or other events, please
send an e-mail to cwilson@uaex.edu

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