



Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Trent Roberts, Dr. Yeshi Wamishe, & Scott Stiles

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No. 2015-18

Crop Progress

It's been a long, hot week for much of the state with little rainfall since last weekend. That is expected to change tonight with heavy thunderstorms on the way for the eastern half of Arkansas. Those of you utilizing water-saving techniques such as multiple-inlet irrigation – this is where those setups pay off – be prepared to capture the rainfall.

Overall temperatures have been extremely favorable for crop progress. While many fields are progressing right in line with DD50 program predicted development, some are progressing a day or two ahead. Continue to use the way it is intended – as a guide – and scout accordingly.

According to DD50 enrollment, the majority of the crop is near or approaching midseason (**Table 1**). With that in mind, please review the detailed midseason N fertilization recommendations in this update. Also included for reference are the projected dates for 50% heading (**Table 2**) with the earliest fields expected to get there before the 4th of July. Some fields have already begun heading in certain locations around the state.

Table 1. Percent of acres to reach ½” internode elongation by date.

Date to ½” IE	% of Acres
Reached IE	22%
June 22-28	29%
June 29 - July 5	25%
July 6-12	5%
July 13-19	1%
July 20-26	1%

Table 2. Percent of acres to reach 50% heading by date.

Date to 50% Hdg	% of Acres
June 29-July 4	3%
July 5-11	21%
July 12-18	25%
July 19-25	33%
July 26-Aug 1	16%
Aug 2-8	2%
Aug 9-15	0%
Aug 16-22	1%

Midseason Nitrogen Applications

Midseason nitrogen (N) fertilization in rice is critical to maximizing yield potential for pureline varieties. Historically, midseason N has been applied using various ‘split-application’ approaches. The most common recommendation for N application to rice varieties is the ‘2-way split’ approach, where approximately 70% of season-total N requirement is applied pre-flood (prior to establishment of the permanent flood) and the remainder is applied at midseason after rice enters reproductive development.

The beginning of reproductive growth when the panicle begins to form is referred to as beginning internode elongation (BIE), and is commonly described as ‘green ring’ due to the presence of a faint green band that appears inside the plant above the top node where the panicle begins to form. This ‘green ring’ can be difficult to find at times depending on environmental conditions and lasts only for a couple of days. Following green ring the rice plant continues to grow and develop distinct nodes and internodes (hollow space between

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nodes) during a period referred to as internode elongation (IE).

Previous research has suggested the optimum timing for midseason N applications to be the period between BIE (green ring) and 1/2-inch IE (1/2-inch being the distance of separation between the two uppermost nodes). If additional midseason N applications are needed then the next timing would be within 7 days after 1/2-inch IE.

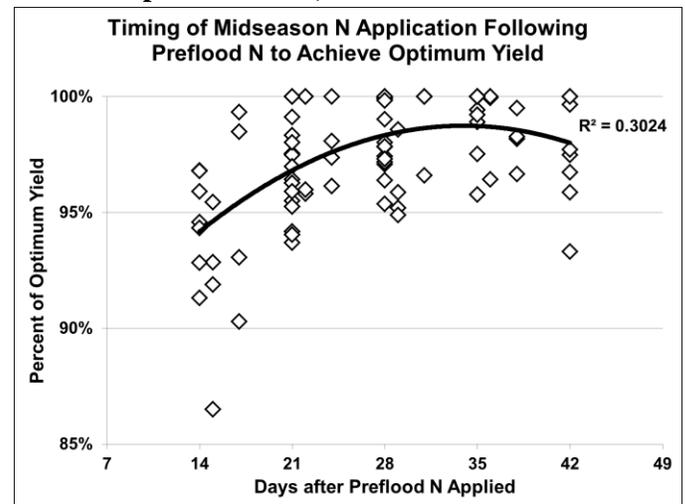
Overall yield potential is set with pre-flood N, and little can be done at midseason to recover major yield losses that occur due to mismanagement of pre-flood N. Current research shows that the window to apply midseason N is much greater than previously thought; however, our primary focus needs to remain on pre-flood N fertilization. If we do not apply adequate pre-flood N, we cannot fully recover maximum yield potential with midseason N applications.

New recommendations for rice fertilization using a 2-way split system are to apply 70% of N pre-flood onto dry soil and establish the permanent flood. Before applying the remaining 30% of N at midseason, it needs to have been at least 3 weeks since the pre-flood N was applied AND plants should be at beginning internode elongation or later. Both conditions must be met prior to applying midseason N.

Figure 1 shows the results of studies conducted from 2012-2014 on midseason N application timing. These studies involved multiple locations throughout the state with several different varieties. All midseason N applications began at BIE – and the timing of those applications has been converted to describe how many days the midseason N

application was made following the pre-flood N application. Once we meet the criteria described above – plants at BIE and 3 weeks (21 days) following pre-flood N, we achieve 95% or greater optimum yield almost every time. When we make midseason applications earlier than 21 days, we see a clear decline with many points falling below 95% optimum yield, but generally still above 90%. This is a situation where the data indicates that waiting is better than going early. Apply midseason N too soon and you may not achieve the maximum benefit from the application.

Fig. 1. Midseason N Application Timing to Achieve Optimum Yield, 2012-2014.



When will I benefit from midseason N? If an inadequate pre-flood N rate has been applied or if pre-flood N has been lost due to environmental conditions or mismanagement. Pre-flood N may be lost if N is applied too early or several weeks prior to flooding resulting in significant N loss; field is not flooded timely and

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an effective urease inhibitor is not used with urea; or N is applied to muddy or flooded soil.

The following criteria should be followed/considered to properly time midseason N applications to maximize the efficiency and yield response of the application: 1) Apply midseason N no earlier than 3 weeks after the pre-flood N application AND after internode elongation (IE) has begun; 2) Never apply more than 45-60 lbs N per acre with the midseason application; and 3) Midseason N application recommendations apply only to pureline varieties utilizing a 2-way split N fertilization program. Do not use this midseason N fertilization method for hybrids or in fields where varieties have received an optimum pre-flood N application.

Update on Blast Reports

Extreme temperatures over the past week have slowed reports of blast, but this will likely change with the approaching weather shift to slightly cooler conditions. In addition the previous reports of leaf blast in 4 counties – Desha Co. (Jupiter), Prairie Co. (Jupiter and CL151), Arkansas Co. (CL151), and Greene Co. (Jupiter); leaf blast has now been reported on Jupiter in Randolph Co. These reports will continue to be provided as blast is confirmed in new counties to assist in making sound management decisions related to the management of this potentially devastating disease. Scout!

Weekly Market Summary: Rough Rice Futures

At mid-day Friday (6/26), Chicago rice futures look set to finish the week higher. Lower crop condition ratings in a few states offered price support this week. Export sales of long-grain rough rice showed up very strong in Thursday’s report. However, the strongest gains were seen in Wednesday’s trading as the July and September contracts closed 29 and 31 cents higher, respectively. Media stories of El Nino’s potential impact on rice hit the newswires midweek. Particular focus was on Thailand. The government has asked growers for the second time in two weeks to push back planting until August. It’s estimated that drought covers about 80% of the area used for rice during the wet season.

[Thailand asks rice farmers to delay plantings](#)

The daily futures charts for rice have been trending mostly higher since mid-May on the prospect of lower planted acreage. It’s noteworthy however the September contract did hit resistance this week near \$10.40. Further upside in new crop futures should be limited given the USDA’s forecast of heavy long-grain ending stocks of 35.1 million hundredweight.

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Note: Commodity markets will be closed next Friday in observance of the July 4th holiday.

In the cash market, old crop rough rice basis continues to weaken. Common basis quotes this week around eastern Arkansas were \$1.00/cwt under futures, compared to -75 cents/cwt a week ago. Old crop basis has weakened 45 to 60 cents/cwt over the past month. New crop basis continues to hold firm at 60 cents/cwt under futures at mills and 80 cents under at dryers being common around eastern Arkansas.

USDA Reports:

Monday: Crop Progress

For the week ending June 21, U.S. rice condition ratings declined by 1 percentage point in the good-to-excellent categories to 68%. This compares to 68% last year for the same week. Crop conditions improved in Arkansas from the previous week, but declined in Louisiana, Mississippi, and Texas.

State	Good/Excellent (%)	
	Week ending 6/14	Week ending 6/21
Arkansas	65%	67%
California	85%	85%
Louisiana	68%	67%
Mississippi	75%	73%
Missouri	53%	54%
Texas	52%	49%
6-states	69%	68%

Thursday: Export Sales

The weekly USDA *Export Sales* report for long-grain rough rice included shipments last week of 19,382 metric tons (427,300 cwt) – down from 31,408 MT the previous week. Shipments were to Mexico and Panama.

In contrast to lower shipments, Net Sales for the week ending June 18 were the second highest of the 2014 marketing year at 84,786 MT (1.87 million cwt). With over 75% (64,255 MT) of last week's net sales credited to "unknown" origins, the *Export Sales* report provided no clear indications as to "who" is buying in large volume. The trade suspects it is Venezuela.

There was one new crop (2015/16) long-grain rough rice sale last week of 3,000 MT to "unknown", bringing total new crop sales to 16,000 MT. The only known buyer of new crop rough rice so far is Colombia (13,000 MT). At this point last year, new crop sales were 75,000 MT, most of which had been sold to Mexico. International buyers are under no pressure to move fast given the current supply situation, not the mention the 20% increase in the value of the U.S. Dollar over the past year.

Long-grain milled shipments were better last week with rice moving into seventeen (17)

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different markets. Shipments were 28,127 MT, up from 18,192 MT the week before. Net Sales were the highest since April 23 at 34,997 MT. The top buyers were Haiti and Saudi Arabia.

The only new crop milled rice sales to date are 1,320 MT to Saudi Arabia. New crop milled rice sales are ahead of last year's pace of 686 MT for the week of June 18.

Upcoming USDA Reports:

June 30 (11:00 a.m. Central):

- Acreage
- Rice Stocks
- Grain Stocks

NASS *Crop Progress* is released each Monday afternoon at 3:00 p.m. Central.

[USDA-NASS reports by title](#)

FAS *Export Sales* are released each Thursday morning at 7:30 a.m. Central.

[USDA-FAS Export Sales](#)



The DD50 program can be accessed at <http://DD50.uaex.edu>. It has now been improved for use on both your computer and your **mobile devices**.

Additional Information

Arkansas Rice Updates are published periodically to provide timely information and recommendations for rice production in Arkansas. If you would like to be added to this email list, please send your request to jhardke@uaex.edu.

This information will also be posted to the Arkansas Row Crops blog (<http://www.arkansas-crops.com/>) where additional information from Extension specialists can be found.

More information on rice production, including access to all publications and reports, can be found at <http://www.uaex.edu/rice>.

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