



Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Gus Lorenz,
Dr. Trent Roberts, & Scott Stiles

June 2, 2017 No. 2017-11

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Crop Progress

"Forget the curveball, Ricky. Give'em the heater!" We've seen every curve Mother Nature can throw this spring. Now it seems ready to deal us a pitch we can hit in the coming weeks with consistently warm temperatures here to stay for a little while. We also have a possible break in the rain for a little while after this weekend.

Everyone seems to be in catch-up mode or struggling not to fall further behind, particularly with cleanup herbicide shots and pre-flood N applications. This next week may be our magic window to get this rice crop back on track, so let's not miss a golden opportunity. Get your game plan together now and let's get it done next week.

Most rice planting is now complete. There are still some replant decisions to be made after failed acres, but some of those are still submerged or too wet. They will likely not be in condition to replant before June 10 at which time they'll be swapped over to beans if they ever get planted to anything. I'm as interested as everyone else to see the June acreage report, but I still feel we'll be in the 1.0-1.1 million acre range.

Rice Water Weevil Alert

Rice water weevil (RWW) numbers look pretty bad this year. Calls are coming in across the whole rice region. The mild winter was apparently good for RWW. Need to be scouting for adult feeding (scarring) 3-5 days after flood.

In fields going to flood that have been planted over 45 days ago we're beginning to see the insecticide seed treatments break. Significant rainfall combined with length of time in the field has them playing out. As a result we're seeing increasing amounts of RWW scarring as rice is flooded.

If you have rice that did not receive a seed treatment, or has been in the ground for a long time before going to flood, you need to be scouting for scarring. If you have significant scarring and activity from RWW adults then to control the larvae you will need to make a foliar insecticide application 7-10 days after flooding, such as Karate or Belay. If it has been more than 10 days since the flood was established then do not bother spraying! You will not get control!

If severe infestations are occurring and you miss the insecticide application window, the only answer is to dry the soil to cracking to kill the larvae. The "sweet spot" for this is to not have to re-flood until it has been at least 3 weeks since the flood was established. The reason for this is it typically takes 3 weeks for plants to take up pre-flood nitrogen – losing a flood and having to re-flood inside that 3 week window will result in nitrogen loss.

Fig. 1. Leaf scarring from rice water weevil.





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Fig. 2. Adult rice water weevil feeding on a rice leaf causing “scarring”.



Fig. 3. Odd bean row effect showing up widespread appears due to compaction from minimum tillage.



Nitrogen Fertilization of Rice in Uncertain Times

After a big rain across most of the Delta, another round is on the way this weekend. Here’s the first thing you need to do if you haven’t already: run an up-to-date DD50 on your fields (<http://DD50.uaex.edu>). Before you jump to conclusions on your field being too early or late to fertilize and flood, put the DD50 data behind that decision.

Now that we know where you stand let’s talk options. Much of the rice out there was planted early and needs to go to flood. However, you should wait until the date of ‘Final recommended time to apply pre-flood N if early N delayed’ found in the DD50 printout before you do anything drastic. Once you reach this date though, it’s time to make a move.

Repeating: if you have yet to reach this date, DO NOT make unnecessary or inefficient N applications, you still have time.

Now for those with fields that are out of time. If you have passed the Final Recommended Time, let’s talk. Have a flooded field right now from the rain? Roll up the gates and hold the water. Start spoonfeeding 100 lbs urea every 7 days – no more than 5 total applications – but evaluate closely after the 4th app to see if the 5th is even needed.

Do you think you can get dried up before the rain in the forecast? Then you’ll want to go through the more usual scenarios below.

As a general reminder, below are the preferred management guidelines for pre-flood N. In order of preference, based on yield response and N efficiency, here are options for applying pre-flood N based on field situations:

1. Field is dry: Apply NBPT-treated urea onto dry soil and establish the permanent flood in a timely manner to incorporate N below the soil surface. If you have any time to spare, it is

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always best to apply pre-flood N onto dry soil – applications onto muddy soil or into standing water are far less favorable and much less efficient methods of N fertilization.

2. Field is muddy: Apply NBPT-treated urea onto muddy soil and attempt to let the soil dry if you have time. If a significant rainfall event occurs (~0.5 in or more) to re-wet the field then begin flooding; otherwise let the soil dry before establishing the flood. If you're applying N to mud we do not know exactly how much N will be lost, but increasing the N rate by ~ 20 lbs N would be wise to offset losses. This increase may or may not provide much benefit depending on your exact soil and weather conditions, but it's less likely to hurt in this case. Watch the crop closely and apply extra N if a deficiency occurs.

3. Field has standing water: Get the water off the field if at all possible (if time allows). If you do not have time to get the water off and let the soil dry, then hold the water and “spoon-feed” N into the flood in small quantities every 5-7 days for 4-5 weeks is the best option – lean toward every 7 days. A small quantity means 45 lbs N per acre (100 lbs urea per acre). If you have a short time to internode elongation, maybe applying N for 3 weeks at 45, 60, and 60 lbs N per acre will be better but still apply a midseason shot of 45 lbs N per acre in addition. Do not, for any reason, apply the entire recommended pre-flood N rate in one application into standing water.

Preferred “worst-case” management: As rice reaches the end of the N application window according to the DD50 program, apply N treated with NBPT to muddy/wet soil and attempt to let the soil dry out underneath the applied N – if a significant rainfall occurs, start flooding. Realize that some N is lost in this case and be

prepared to monitor the crop closely and apply additional N later if the rice looks like it needs it.

Fields unable to hold a flood (levees and gates unfinished or damaged): Apply a small amount of N and wait for the soil to dry or receive upcoming rainfall. If heavy rain is expected and movement is a concern, ammonium sulfate should be used for this application; otherwise, apply urea. If conditions are still not dry enough to flood the field in a week, subsequent N applications will be needed in the same manner until a flood can be established. At the point the flood can be established, apply any remaining N requirements to the dry soil and flood.

When pre-flood N is applied onto dry soil to rice at the 4- to 5-leaf stage and a flood is applied timely, plants take up at least 60% of the total N applied over the course of 3 weeks (10% week 1, 20% week 2, 30% week 3). In general the period from the optimum time to apply pre-flood N until internode elongation (IE) is about 3 weeks, but from the final recommended application time to IE is about 2 weeks. However, these timings are based on plant development when rice has received timely N fertilization and flooding – delaying these causes rice to develop more slowly. Keep in mind that we can only make up a small amount of yield with N applied at midseason.

Previous research has shown that N applied onto dry soil has the most yield benefit. Applying urea onto muddy soil can result in a 20% yield loss. However, applying ammonium sulfate or urea + NBPT onto muddy soil and letting the soil dry can reduce the yield loss to only 10%. In this research, N was applied just prior to permanent flood at the 4- to 5-leaf stage.

Past the 4- to 5-leaf stage, potential yield losses could become more dramatic. However, many factors influence how much flexibility we

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have in our N fertilization timing, including cultivar, length of maturity, native soil N, soil type, etc. If native soil N is high, then the effect is reduced. If it is a longer season cultivar then there is a greater window before midseason. In any case don't let it get too late before applying N. Use of the DD50 Rice Management Program can help to time management decisions in these situations (<http://DD50.uaex.edu>).

2016 Rice PLC Update

As of May 10, USDA's Farm Service Agency (FSA) is projecting a 2016 marketing year average price for long-grain of \$9.70/cwt. or \$4.37/bu. A projected PLC Payment Rate can be determined by subtracting the \$4.37/bu. marketing year average price from the PLC Reference Price of \$6.30/bu. This would result in a projected PLC Payment Rate of \$1.93 per bushel (not accounting for sequestration). The final marketing year price for 2016 long-grain is expected to be announced in October.

2016 Projected PLC Payment Rates, Rice. (as of May 10, 2017)

	A	B	C	(A minus higher of B or C)
Unit: \$/bu.	Reference Price	Loan Rate	Marketing Year Avg. Price	Projected PLC Payment Rate
Long-Grain	\$6.30	\$2.925	\$4.37	\$1.93
Medium-Grain	\$6.30	\$2.925	\$4.50	\$1.80

Projected 2016 PLC payment rates are updated monthly on the FSA's ARC/PLC website at this link: [ARC/PLC Program Data](#).

Look under the heading "Program Year 2016 Data" for "Projected 2016 PLC Payment Rates".

Also at the link shown above, FSA has now added a very preliminary look at 2017 crop PLC rates. For long-grain rice FSA is currently using the mid-point of the price range included in the May WASDE report—which is \$10.70/cwt. or \$4.82/bu. Using this average price a PLC payment of \$1.48/bu. would be expected for the 2017 crop.

Rough Rice Market:

Chicago rice futures closed higher Friday (6/2) for the fifth straight week. The September '17 and November '17 rice futures contracts settled at \$11.39 and \$11.60/cwt., respectively. The September '17 contract is about 46 cents from reaching its' life of contract high of \$11.85/cwt. Traders have been focused on lost acreage, delayed planting, crop condition ratings that are below last year and most recently new export business with Iraq. That is likely now priced into the market. The Acreage report due out June 30 could be the make-or-break news item for rice this month. New crop basis levels in recent weeks are generally 50 cents/cwt under futures at mills and 75 to 80 cents/cwt under at dryers. It will be interesting to see if basis levels can hold firm in the face of rising futures.

Long-Grain Exports:

Weekly Export Sales for the week of May 25 were released this morning. There was nothing of any great significance to note regarding long-grain. Most of the rough rice sales last week were to Mexico, which accounts for 44% of rough rice sales year-to-date. Overall, long-grain rough rice sales are running 5% ahead of last year's pace. No new crop (2017) rough rice sales have been listed thus far.

Long-grain milled rice sales are 9% behind last year. Haiti accounts for 51% of long-grain milled sales to date. The majority of milled sales last week were also to Haiti.

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Coming Up:

Friday, June 9th

USDA Supply/Demand – 11:00 AM

NASS *Crop Production* – 11:00 AM

Tuesday, June 13th

ERS *Rice Outlook* – 2:00 PM

Friday, June 30th

NASS *Acreage* – 11:00 AM

NASS *Rice Stocks* – 11:00 AM

*-all times Central.

Enroll Fields in the DD50 Program to Help Time Management Decisions

The DD50 program can be found at <http://DD50.uaex.edu>. Please let us know if you have any questions or encounter any problems.



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 rice@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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