



Arkansas Rice Update

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Crop Progress

Beware the Ides of Midseason. Now that it's time to fertilize and flood, it seems the weather is going to start working against us. More on that in N Management.

Fields are beginning to take off from the week of warm weather after the previous week slowed progress to a crawl. For those in the northern half of the state – you were accumulating half the DD50 units each day that you should have been based on averages. That means when you didn't see the rice jump the week following fertilization, it was because it had made only about 3 days of progress compared to the 7 you normally expect this time of year. Southern growers were only off a few DD50 units each day, still a slowdown but progressing closer to normal.

Only the past several days have really gotten us back on track in terms of heat accumulation – which directly drives rice progress. Keep in mind that we think in terms of days but the plant thinks in terms of heat. That's why the DD50 program works to help us stay on track with plant progress. When we go through these odd weather spells you don't have to shoot from the hip – update your DD50 program and stay on track with its predictive dates.

Fig. 1. Dreaded “bean row effect” from Grape Colaspis – seed wasn't treated.



Nitrogen Management & Rainfall

Huge rainfall amounts fell this week in areas of the northeast. Some had just applied pre-flood N and others were just getting ready to pull the trigger when anywhere from 2-7” fell in just a few hours.

Hot Question 1: I just put out my N and started to flood up – the rains washed my field out – how much N did I lose? Like the rest of farming, it all depends. Biggest key to growing rice is the ability to monitor and adjust and that's what we'll do here. As long as the soil stays muddy we're not losing N and the plant will take it up and grow. If we have to let the soil dry to repair levees, it will all be about when it dries up and when we get it reflooded – please call to get a recommendation for your specific situation.

But I know you want a recommendation now. As a starting point if your field has to dry up for a week so you can fix levees and reflood, figure that you lost at least 25% of your N. For most this situation will mean applying another 30-45 units (100 lbs urea) and flooding back up.

Hot Question 2: I'm now getting late in the window to apply N and I got all this rain with more rain in the forecast. What do I do? DO NOT apply your N into the standing water. If you do, give it some bus fare because it's headed out of town. Make every attempt to apply pre-flood N onto dry soil. If it won't dry up and you're past the Final Recommended N date, apply NBPT-treated urea onto muddy soil and let that soil dry as long as possible until it's either dry enough to incorporate the N or you get a rain and just have to start flooding.

If you apply N onto muddy soil and know that you will not be able to let the soil dry before flooding – meaning you will flood muddy ground – then increase your N rate by 20-30 units to account for your N loss.

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As a final, last ditch effort where we're beyond the window and can't get rid of standing water – then only apply small amounts of N into the water. No more than 100 lbs urea at a time. Recent research data indicates that before going with this approach it is in your best interest to WAIT until the Final Recommended N date based on DD50 before putting any N into the flood. Even this method can fail to maximize yield, but going earlier may lead to significantly lower yields. Know that to achieve maximum yields when spoonfeeding you will still need to put out much more N than if you were able to apply N to dry or muddy soil.

Order of preference for Preflood N Applications based on yield potential:

1. Dry soil – use urea treated with NBPT
2. Muddy soil and attempt to let it dry underneath – use urea treated with NBPT. Start flooding if it rains.
3. Muddy soil with no chance to let it dry before another rain – use urea treated with NBPT. Increase rate by 20-30 units N/acre to account for N losses.
4. Standing water – use urea but do not treat with NBPT as it will wash off. Do not, for any reason, apply the entire large preflood N amount into standing water.

Disease Update

Rice leaf blast was detected on May 17, 2016 in a rice variety planted on March 11 in Texas commercial fields. Arkansas has been sharing similar weather conditions that favored early blast disease in Texas.

Temperatures in spring of 2016 have been cooler with frequent rains. Mild temperatures, extended free moisture periods on the leaves, foggy or cloudy conditions, frequent rain and slow wind usually promote blast disease

development and spread. Excess N fertilization also worsens blast disease. Sandier soils that do not maintain permanent flood are prone to blast as well.

So far in 2016, there is no report of rice blast in Arkansas. It is important to note that we still have some commercial rice varieties in production that are susceptible to blast. The blast pathogen is air, seed, or residue-borne. Seed and air-borne pathogens can easily move long distances making blast disease unpredictable.

Blast pathogen spores infect young leaves (**Fig. 2**) and severe damage can be caused at the early stages of susceptible rice crops. Leaf blast at early stage of the rice crop can easily be managed by flood depth if detected early. Therefore, scouting for the disease starting a few weeks after flood is recommended.

Once the flood is established, maintenance of a deep flood of four inches throughout the season is highly to reduce severe neck blast situation.

Fig. 2. Rice leaves with blast disease lesions.



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Pipe Planner 3 Now Available

Pipe Planner Version 3 is much different than the previous version. All of the add-ons discussed at winter meetings are there. Multiple Inlet Rice Irrigation, elevation help (where to put a barrel or incline), irrigation from an inline T, and we can draw the entire field and it will break it into multiple sets automatically or we can even select where we want the sets to begin and end.

There are short training videos available. Here is the link to one and the others are there too: <https://youtu.be/sYmTBaQQSDw>.

Fig. 3. Flag the Technology gets a barrel to remove all doubt!



Fig. 4. Interesting patterns showing up in row rice fields – here high levels of salt are killing the rice on top of beds.



The DD50 program can be found at <http://DD50.uaex.edu>. Enroll fields now to help with timing most major rice management practices.

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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