



Arkansas Rice Update

Dr. Jarrod Hardke

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Crop Progress

We're basically planted up, and what's been planted for at least 5-7 days is emerged. No more planting and emergence figures! It's a good feeling right now as the rice crop looks great overall, and to me better than the soybean and corn crops at the moment.

Scattered rainfall over the past week has it feeling like Gulf Coast weather with high temps and humidity and pop-up afternoon and evening showers. As we get through rain events moving through tonight, we then have Tropical Storm Alberto (Fig. 1) headed for us. The exact track and ultimate impact remains to be seen. I can hear Tattoo now, "the rain, boss, the rain."

Fig. 1. Expected path and timeline of Tropical Storm Alberto.



This week the focus has been on trying to apply pre-flood nitrogen on an increasing number of acres. The sporadic rainfall is not making that easy on us right now, says Captain Obvious. It's also been a week of drift complaints and herbicide injury in general. Newpath has mildly injured some Clearfield hybrid rice, but some has actually been related to Delayed Phytotoxicity Syndrome (DPS) not necessarily the Newpath. Others are having problems with Gramoxone drift. And others we'll cover in detail now...

Loyant Drift Becoming an Issue

The calls and texts received this week by myself and our weed scientists has gotten out of control. Loyant herbicide is injuring soybean as far as 3/4 of a mile away (Fig. 2). The exact reasons why remain unclear but are likely due to wind, distance, or inversion issues, or perhaps all three. Yes it's true there are plenty of applications going out without any reported issues, but there is something going on. A growing number of aerial applicators are already refusing to put it out.

The label is very clear that we use a minimum of 10 GPA (gallons per acre) and we cannot make applications when adjacent soybeans are downwind. Any application made with soybeans adjacent downwind or using less than 10 GPA are increasing the risk of off-target movement (and in violation of the label). Combine that with high speed, high pressure, high temperatures, high humidity, and moist soil, and you have a big recipe for movement potential.

Some ask, what's adjacent? While it's generally thought that of as right across the turn row or dump, it would be best to think of it as any soybean within 1/2 mile downwind. It's possible that's still not enough, but it's a move in the right direction.

At this time I would advise applications not be made, especially by air, unless you have at least a 1/2 mile or more downwind to soybeans and can use 10 GPA. If we can't do this then Loyant does not need to be applied.

Many soybean fields are recovering in a week to 10 days. However, we do not know yield consequences of these drift rates. Maturity delays are also possible. Reports on weed control of broadleaves and barnyardgrass have been excellent as expected. We need to get a handle on this technology so we can keep it in play.

There is no room for error with this product given how sensitive soybean is to it. If in doubt about the wind, don't spray. Borderline inversion conditions, don't spray. Can't get a coarse droplet size, don't spray. Good luck out there.

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Fig. 2. Injured soybeans from drift of Loyant herbicide applications.



Preflood N Management with Wet or Flooded Conditions

I wish we all had a nice, dry window for nitrogen application, but it's not going to be that way. First – RUN A DD50 REPORT! The “final recommended time to apply preflood N if early N delayed” is very important. This is effectively our “drop-dead” date. As we get to it we have to go with the best option available, after it the yield curve begins to go down. This is true for both varieties and hybrids.

Playbook without dry soil conditions:

- If you're approaching the final date and have muddy soil but no standing water, apply your preflood N onto the mud and attempt to let the soil dry underneath before flooding. If you catch a rain, start the well. The reason for drying is to allow field capacity to get N incorporated below the soil line when we flood. Increase the N rate by 20-30 units to offset losses if you really don't think you'll get the ground any drier. Always use NBPT-treated urea in this situation.
- If you're approaching the final date and you catch a large rain that leaves you with a flooded field, begin to spoon-feed your nitrogen. This means 100 lbs urea per application every 7 days for 3-4 total apps.

For varieties, you will need 4 total applications with the last one like a midseason application. In some situations a 5th application was needed to maximize yield. For hybrids, you need a minimum of 3 applications and might need a 4th. When spoon-feeding, you don't need NBPT on your urea, it just washes away.

- We most want to avoid mixed field situations – that is parts of the field muddy and parts standing water; or parts muddy and parts dry. This will lead to major differences in N uptake efficiency and we'll have to drastically over-fertilize the field to get everything to maximum yield potential. This means increased risk of disease and lodging, as well as a high fertilizer bill. Just try your best to get it one way or another.

What NOT to do without dry soil conditions:

- Don't drop the entire preflood N application into standing water at one time. This will fail as it leads to massive N losses before small rice can take it up.
- Don't put a small amount on muddy ground then flood and spoon-feed after that. We tried this and it had mixed results.

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Hope for the best, take what you get. Use the DD50 and the dates therein as your guide. Once you get to the final N date, or maybe a day or two past at most, it's time to make a move and get N out there in some form.

Fig. 3. Urea prills being met by the flood.



New DD50 Program is Live!

Check out <http://DD50.uaex.edu> for the overhauled DD50 Rice Management Program. We have tried to make this version extremely user friendly, but in doing so it is a little different than the old version. If you run into any issue, please call or text me directly at 501-772-1714 or send emails to riceadvisor@uaex.edu. It also works great on mobile phones and tablets.

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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