



# Arkansas Rice Update

Dr. Jarrod Hardke & Dr. Gus Lorenz

May 26, 2017 No. 2017-10

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## Crop Progress

The end is near – of most planting anyway. Though I believe some have felt that way throughout the entire month of May. One field is still submerged from flooding while the next field over is being damaged by a windstorm blowing dirt/sand. Beats anything most have ever seen. It feels like we're saying that about something every year lately.

On a moderately positive note, most acres of rice are generally starting to look a lot healthier. In fact, the overall report on the crop has a large amount of acres in the good/excellent categories. We still have a long way to go on this season, but there are some slight positives beginning to take shape as the forecast for next week is finally for warm temperatures. If we can get away from the cool days and nights we might actually make a crop.

## Nitrogen Starter / Recovery Applications

Plenty of rice acres are still dealing with issues and injury of various forms. To apply a “recovery” application or not? Keep one thing in mind: the rice is most likely going to grow out of it, or not, regardless of whether you apply something, or not.

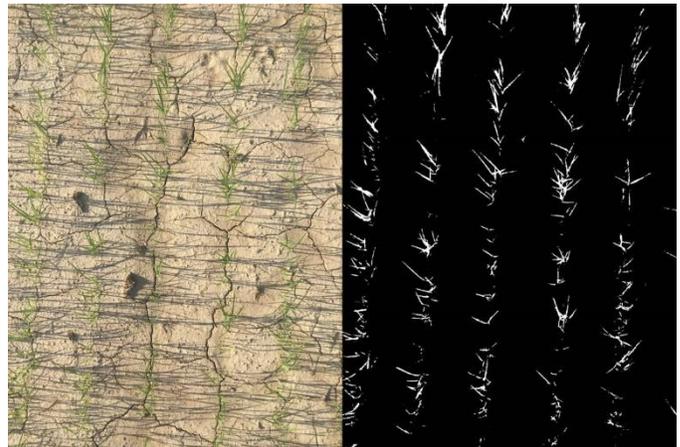
So your choice is really based on simply trying to speed up that plant recovery. It probably won't translate to a bit of yield difference but it will move the crop forward in time – this could save a herbicide application and get to harvest faster. But it may only make a day or two of difference – is that worth \$20+ an acre of added expense, probably doubtful.

However, if you are dead set on making one of these applications, you must wait until you see new green growth before making the application. If the plants are not trying to grow off and get healthy then they will not take up what you apply. Then there is virtually no

benefit. To be clear – I'm referring to applications of AMS, DAP, urea or blends of those.

What about applying a true foliar product? In **Fig. 1** we have seedling rice on the left and the same image set to contrast on the right. That shows only 2.8% ground cover by seedling rice. It is difficult to recommend foliar product applications when you have a 97.2% chance of not hitting your target.

**Fig. 1. Rice seedling ground coverage.**



## Issues Applying Preflood Nitrogen

If you are not yet late applying preflood N – based on DD50 program timing – relax. Do not make a N application under suboptimal conditions while you still have time to give. If the soil is wet or rice is still short, continue to give it time.

If you do reach the end of the preflood N window, then it becomes time to get after it and not get behind. If you do not have levees or for some other reason can't flood and reach that time, apply N in some form ahead of a rain and feed those plants (say 100 lbs of urea, about half of which you can count toward preflood). Applying some N in a suboptimum way is better than getting behind and not maximizing tillering.

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If you choose to apply the full pre-flood N rate on damp soil (no standing water) – use NBPT-treated urea and try to let the soil dry under it before flooding. If you get a rain before the soil dries sufficiently, go ahead and flood. We strongly recommend establishing a Greenseeker reference plot in all fields – but especially those where we have pre-flood N issues. This will help us confirm that we have sufficient N at mid-season or if we need another shot. Check out the [Rice Farming for Profit](#) publication for the Greenseeker recommendations.

## Tadpole Shrimp Found in Rice

Tadpole shrimp (**Fig. 2**) have been reported in several rice fields in recent days. It appears they were found in some fields coming out of ditches because of recent flooding.

Tadpole shrimp are common pests of rice in California. Generally, only water-seeded systems have problems with tadpole shrimp because eggs hatch once fields are flooded. Immatures initially are filter feeders until they are large enough to feed on plant material. The smaller the plant when tadpole shrimp begin to feed on rice, the more damage is likely to occur. However, once rice plants break the water, they can tolerate tadpole shrimp. Rice planted using drill-seeded and dry-seeded methods is large enough when fields are flooded. Therefore, tadpole shrimp are not pests in dry-seeded systems.

Hybrids are planted at a lower seeding rate than conventional varieties. Fields with hybrids are more susceptible to damage. Plants are not more susceptible to tadpole shrimp damage, but the low seeding rate makes the losses more apparent than with a higher seeding rate. Losing 10 percent of a stand planted at 20-30 lbs/A is

more detrimental than losing 10 percent of a stand planted at 60-70 lbs/A.

Once rice is no longer vulnerable, tadpole shrimp may be biological control agents for mosquitoes and weeds. Tadpole shrimp are predators of mosquitoes, and the damage they inflict on rice (eating and/or uprooting seedlings) can also occur to weed seedlings. We still do not know the extent of the distribution of tadpole shrimp in Missouri, but we are confident it will only be a problem for water-seeded systems. And, in fact, it may even be beneficial to farmers in drill-seeded systems once plants have broken the surface in water-seeded systems. If you think tadpole shrimp are a problem please contact us to discuss.

**Fig. 2. Tadpole shrimp in rice (courtesy of Lance Schmidt).**



## Preflood Nitrogen Recommendations

The [2017 Rice Farming for Profit](#) publication on pages 12-14 contains recommendations for nitrogen rates, urease inhibitors, and determining mid-season nitrogen needs using the Greenseeker handheld.

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**Fig. 3.** April 27 versus May 25 on the same rice field in Prairie County (courtesy of Eric Nail).



**Fig. 4.** Left side of field was never submerged, right side was submerged for 7-10 days.



## 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](mailto: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>.

## Acknowledgements

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