



Arkansas Rice Update

Dr. Jarrod Hardke & Dr. Yeshi Wamishe

August 7, 2020 No. 2020-20

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Crop Progress

“Squalls out on the gulf stream, big storm comin’ soon.” NOAA has now upped their prediction for a very active hurricane season this year. They’re predicting that they may run out of names and be forced to use the Greek alphabet (not a joke) and this has only happened once before in 2005 (the year of Hurricane Katrina). I’m shaking my head too. Who had Greek alphabet hurricanes on 2020 bingo?

On to better thoughts and better days for now. Conditions continue to be excellent for grain fill and maturity in this rice crop. A smooth ride of temperatures and rainfall are in the extended forecast for now. So far, we’re not expected to see the ‘late summer’ occur as it did last year, but time will tell.

Next week on Aug. 12 we’re supposed to see the first FSA acreage report. This will start to give us a more definitive answer on total rice acres planted this year versus the survey results we’ve seen earlier.

Table 1. Percent of acres reaching 20% grain moisture by week (based on fields in DD50).

Week	Percent of Acres
Aug 10 to Aug 16	0.7%
Aug 17 to Aug 23	6.2%
Aug 24 to Aug 30	26.7%
Aug 31 to Sept 6	35.5%
Sept 7 to Sept 13	20.4%
Sept 14 to Sept 20	5.5%
Sept 21 to Sept 27	3.1%

Fig. 1. Potassium deficiency showing up late as rice matures.



Drain Timing

The basic recommendations for draining rice are 25 or 30 days after 50% heading for long-grain or medium-grain cultivars, respectively. This number of days is built into the DD50 program to predict draining date. However, depending on temperatures, rainfall, and overall environmental conditions, drain timing becomes as much an art as a science.

Fig. 2 shows a general guide for determining relative grain maturity. It is divided into 3 sections:

- Left, nearly all kernels are straw colored (field is safe to drain regardless of soil type).
- Center, nearly 2/3 of kernels are straw colored and it is safe to drain on a silt loam soil.
- Right, 1/3 of kernels are straw colored and close to safe drain timing on a clay soil.

When draining rice, assume it’s never going to rain after draining. If the rice couldn’t make it under those conditions, then hold the flood on the field. Stay on the side of caution. Draining too early can sacrifice late grain fill and yield. Use a combination of the days after 50% heading guideline (25-30 days) and the relative grain maturity in the field to make your drain decisions.

Fig. 2. Rice panicles at different maturity levels described by kernel percent straw color: (L) 100%, (C) 67%, and (R) 33%.



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Disease Update

This week with the fine weather, we received very few questions on blast, sheath blight and other disease-like symptoms. Combined similar questions and our responses are stated below in our own words.

Blast:

We have detected leaf blast on Diamond. As mild as blast is, what are your thoughts on using protection fungicides for neck blast?

You have to consider several factors to make fungicide application decision. Mind you no fungicide is useful to apply once you start seeing neck blast. This is similar to gambling. If there will be no neck/panicle blast, you lose some money. However, if you skip the protection from fungicides and unfortunately disease occurs, you could lose near 100% of the grain yield.

Your fungicide application decision should be based on: Is the variety susceptible? In this case, Yes. Does the field have a history? In this case, Yes. Has the flood depth been maintained to at least 4 inches since leaf blast was detected? In this case, not uniformly. Is the rice maturity in the field uniform? In this case, No. Has the field been managed well and anticipated as profitable? In this case possibly, Yes. Is the weather favorable for blast-pathogen spore to germinate? In this case, not sure, the mild blast situation can be an indicator of less favorability.

This is my thought. To reduce cost, generic formulations can be used. At least one application needs to be made to minimize the risk if timed correctly. However, in such non-uniform field, there is a risk of losing some panicles. Mind you, the two application helps to protect the necks and panicles of the main tillers and the 2nd application to protect the secondary tiller and the late tillers due to non-uniformity of maturity.

Sheath blight:

There are almost 100% positive stops in the upper part of a row rice field, but it is not yet high up to threaten the upper three leaves even at the upper end of the field. You think the rice can outrun the disease?

We have less experience in row rice sheath blight situations. However, from reports and our observations, we have seen more sheath blight on the upper end of rice where water is short. This year, we have started a preliminary test in row rice in artificially inoculated Diamond at Rice Research and Extension Center. Our hypothesis was to see more sheath blight on the lower end thinking the inoculum be moved by the water. Nevertheless, more sheath blight is on the upper end in agreement with your observation, other reports and our observations too.

These being the situations, to answer your question: Continue scouting and watch the weather situation. As long as the upper three leaves are clean, the fungicide application may still be delayed or skipped or you may treat the portions of the field where sheath blight is moving faster. The air flow in row rice may help to slow down the progress compared to dense flooded canopy. I still see sheath blight progress in my research plots where the micro-environment has been deliberately made favorable. However, the weather in general has slowed the disease. The more you delay, you may also save money using lower rates of the fungicides depending on your choice of fungicides. Please consult us which fungicides to use in reduced amount.

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Disease-like symptoms on leaves:

Sometimes, symptoms from chemical contaminations, mix, drifts or nutrient deficiency/toxicity make field disease diagnosis difficult. Both **Fig. 3** and **Fig. 4** (Jupiter), showed unusual and worsened lesions after application of fungicides. No known fungicides for rice can cause such symptoms. No known insecticide for rice also causes such symptoms. However, some herbicides can. Please make sure to clean tanks before applying fungicides. If mixing is desired, check current labels and check for compatibility. Some chemistries could be antagonistic and damage crop. Panicle can greatly be damaged if applied after heading. Flowering stage is the most sensitive stage.

Reminder on scouting for Bacterial Panicle Blight (BPB):

Although we can do nothing for damages caused by bacterial panicle blight, it is wise to scout for BPB so that one may not use infested seeds for next season planting. Based on our previous years' survey, BPB is mainly seed borne. If seeds for planting are clean from the bacteria, the chance for the disease to prevail is nearly zero. For identification of bacterial panicle blight in rice refer to this fact sheet uaex.publicationFSA-7580.

Fig. 3. Chemical damage (possibly Blazer) on Jupiter leaves.



Fig. 4. Non-diagnosed damaged to Jupiter.



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2020 Virtual Rice Field Day Scheduled

On August 20 at 6 p.m. we will host the 2020 Online Rice Field Day. Information on presenters and registration can be found here: [Rice Field Day](#). You'll get to see several presentations from rice researchers as well as a live Q&A session.

For more information on field days for other commodities including corn, soybean, and cotton, visit: [Online Field Days](#).

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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