

Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Gus Lorenz, and Dr. Yeshi Wamishe

July 5, 2013

No. 2013-15

Crop Progress

A lot of rice acres have been or are currently receiving midseason nitrogen applications. The DD50 numbers indicate ~80% of the crop has reached ½” internode elongation or beyond.

This week’s weather has seemed like a blessing with highs in the 80s and lows in the 60s. While working outside is definitely nicer under those conditions, we could have done without it as far as the rice is concerned. Given the late crop, I would prefer that we maximize our heat units every day and speed toward harvest.

Luckily, the forecast for next week is for high temperatures in the low to mid-90s. There were some decent rain chances forecast for the weekend, but most of those chances have been reduced. There are now some decent chances for scattered showers during the middle of next week though.

With the cooler temperatures, DD50 estimates have shifted a little later (Tables 1-3). About 30 heat units is equal to a day of development. We probably lost about a day of progress with this week’s cool temps.

Tables – Percent of rice acres to reach growth stages during listed weeks of 2013 according to current DD50 enrollment.

Table 1. ½” internode elongation.

½” IE Date	Percent
Reached ½” IE	79%
July 6-12	14%
July 13-19	5%
July 20-26	2%

Table 2. 50% heading.

50% Heading Date	Percent
July 5-11	1%
July 12-18	29%
July 19-25	31%
July 26 – Aug 1	23%
Aug 2-8	11%
Aug 9-15	4%
Aug 16-22	2%

Table 3. 20% grain moisture.

Harvest Date	Percent
Aug 10-16	1%
Aug 17-23	22%
Aug 24-30	26%
Aug 31 – Sept 6	29%
Sept 7-13	14%
Sept 14-20	5%
Sept 21-27	2%



ARKANSAS RICE EXPO

Aug. 2, 2013
 8 A.M. – 1 P.M. • GRAND PRAIRIE CENTER
 2807 Hwy. 165 South, Stuttgart, AR

- Live & virtual tours of rice research with UA specialists
- Smart phone, tablets & other tech apps in ag
- Commodity Board Reports

U of A DIVISION OF AGRICULTURE RESEARCH & EXTENSION
 University of Arkansas System

FOLLOW US: aaes.uark.edu/rice | U of A Rice Research & Extension Center | @ARiceExpo

Out Standing in Your Rice Field

Rice Stem Borer

Rice stem borer infestations have been found in central Arkansas (Picture 1). While this pest is not uncommon, it does not typically show up in large numbers. That is not the case

Visit our website at <http://www.uaex.edu>

University of Arkansas, United States Department of Agriculture, and County Governments Cooperating
 The University of Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.

Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Gus Lorenz, and Dr. Yeshi Wamishe

in the few fields examined this week, as rice stem borer was found throughout the fields with 4-5 infested plants per stop in the field. By the time this pest is typically found it is too late (Picture 2). White plants are the common indicator of rice stem borer. They bore into the plant low on the stem and will tunnel upward through the boot.

Picture 1. Rice stem borer larva.



Picture 2. Plant injured by rice stem borer.



Disease Update

There have been no new reports of blast in Arkansas since it was first observed on Jupiter in Woodruff County on June 24. In this same area, sheath blight was seen active on Jupiter at green ring. Even though a few other fields are reported to have some sheath blight, the disease has not been moving fast (maybe due to the milder temps and less rain) and are not yet to fungicide-treatment level.

A few reports of hydrogen sulfide toxicity (Akiochi) came out this week (July 2). The majority of our rice in Arkansas is close to midseason or at midseason this week. If you are suspicious of your field for this disease, it would be better to drain your rice field before midseason than after to aerate (oxidize) the soil. Indication for recovery is new root formation.

Picture 3. Rice plant with roots displaying symptoms of hydrogen sulfide toxicity.



Visit our website at <http://www.uaex.edu>

University of Arkansas, United States Department of Agriculture, and County Governments Cooperating
The University of Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.

Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Gus Lorenz, and Dr. Yeshi Wamishe

Picture 4. Rice plant 30 minutes later – symptoms fading.



Picture 5. Rice plant the following morning – symptoms gone.



Problematic rice fields show yellowish lower leaves starting a few weeks after flooding and plant growth is slower than normal. When scouting, compare the roots of rice plants pulled from the levee and bar ditch. Rice growing on levees is usually less affected due to more aerobic soil conditions. In some situations, you may not pick up the “rotten egg” smell of the

hydrogen sulfide. In some soil types, you may also not see the expected air bubbles to indicate the formation of hydrogen sulfide gas. To prove hydrogen sulfide toxicity, the blackened roots should change their color to normal when exposed to air for a few hours or just overnight. **Note that a certain level of blackening could be normal in flooded rice and we should be looking at all other symptoms of Akiochi** before we take the management options.

Fertilizer applications will not provide the desired benefit to plants with compromised root systems. However, you should consider the possibility of potassium and/or zinc deficiency. Once the symptoms are obvious, your only management approach is to follow the “rescue strategy”. If symptoms are not yet there but you know the field has a history, your option is to follow “preventative strategy” at straighthead timing. Read more on management strategies here:

<http://www.arkansas-crops.com/2013/05/23/weather-and-akiochi-disease-of-rice-is-there-a-link/>

Bacterial panicle blight (BPB) was found in a Jazzman-2 field in Louisiana (Groth, Rice Newsletter 15). Reportedly, this field headed during the week where the temperature was above 95°F.

Remember BPB is severe when day and night temps are high especially from boot split to flowering stage of the crop and symptoms (Picture 3) can be confused with physical damage from heat or wind.

Visit our website at <http://www.uaex.edu>

University of Arkansas, United States Department of Agriculture, and County Governments Cooperating
The University of Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.

Arkansas Rice Update

Dr. Jarrod Hardke, Dr. Gus Lorenz, and Dr. Yeshi Wamishe

Picture 6. Symptoms of BPB.



The authors greatly appreciate the feedback and contributions of all growers, county agents, consultants, and rice industry stakeholders.

Need Help with DD50 Enrollment? Call or E-mail Me or Your Local County Extension Agent

If you prefer to enter them yourself, please visit <http://dd50.uaex.edu/dd50Logon.asp>.

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 jhardke@uaex.edu.

This information will also be posted to the Arkansas Row Crops where additional information from Extension specialists can be found. Please visit the blog at <http://www.arkansas-crops.com/>

Acknowledgements

We sincerely appreciate the support provided by the Arkansas Rice Research and Promotion Board for this publication.

Visit our website at <http://www.uaex.edu>

University of Arkansas, United States Department of Agriculture, and County Governments Cooperating
The University of Arkansas Cooperative Extension Service offers its programs to all eligible persons regardless of race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status, and is an Affirmative Action/Equal Opportunity Employer.