



Arkansas Rice Update

Dr. Jarrod Hardke & Dr. Yeshi Wamishe

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Crop Progress

Upon looking at oil dripping from underneath his racecar, Robert Duvall in Days of Thunder looked at the car and said, “This is not the kind of answer I’m looking for from you.” I feel like that looking at the recent weather and upcoming forecast.

The majority of the state has been experiencing nighttime temperatures at or above 75 degrees for over 5 days. At this point research has shown that occurrence to have negative effects on grain quality. Add the next 5 nights or so at the same temperatures and any grains being filled have the potential for increased chalk formation.

There is certainly a negative in terms of the potential effect on grain quality given the amount of acreage heading (**Table 1**). However, daytime highs are staying below the point that pollination would be negatively affected.

What we are seeing in the field is limited blanking of portions of panicles due to environmental effects. These are primarily due to daytime winds that damage kernels before they can successfully pollinate (**Fig. 1**).

Fig. 1. Wind-damaged kernels, not bacterial panicle blight.



Table 1. Percent of Acres at 50% Heading by Week Based on DD50 Enrollment.

Week	% of Acres
June 29-July 4	0.4
July 5-11	27.7
July 12-18	39.2
July 19-25	24.2
July 26-Aug 1	6.1
Aug 2-8	1.6
Aug 9-15	0.5

Drain Timing – Act Conservatively

Drain timing was discussed in detail last week. However, given the oppressive heat – keep in mind that we need to be very conservative. Fields will dry out very quickly under these conditions, even if you’re not actively draining but instead just ‘turning the well off’. We still have a few weeks until we really see a push in the fields ready to drain with harvest set begin possibly in early August (**Table 2**).

Pulling the plug too early leads to direct yield loss and this is just the kind of year for it to catch us. Years where temperatures are cooler and there’s rainfall at some point (unlike this year) then we can get away with pushing the envelope. There is too much invested in this crop to drop the ball now.

Table 2. Percent of Acres at 20% Grain Moisture by Week Based on DD50 Enrollment.

Week	% of Acres
Aug 3-9	0.3
Aug 10-16	19.6
Aug 17-23	39.2
Aug 24-30	26.9
Aug 31-Sept 6	10.4
Sept 7-13	2.7
Sept 14-20	0.7

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Delayed Phytotoxicity Syndrome & Dead Tiller Syndrome: Rare Disorders in Rice

Delayed Phytotoxicity Syndrome (DPS) is not commonly seen in rice fields, but it is caused by common rice herbicides. However, in some soils microorganisms change the herbicides and make them harmful to rice. **Draining and drying the field** to allow oxygen into the soil just like we do for straighthead or hydrogen sulfide toxicity has been recommended as the best management option. To read more on DPS symptoms and management go [HERE](#) and [HERE](#). See **Fig. 2, 3, and 4** for various symptoms.

Dead Tiller Syndrome (DTS) caused by a *Pythium* species affects rice tillers. Soft rot at the base of a rice plant makes tillers easy to separate and pull out easily. According to the previous rice pathologist Dr. Fleet Lee, DTS was more associated with cold irrigation water. Small percentage of plants are often affected by DTS and it has not been of concern to yield loss. Management options for DTS are not recommended. See **Fig. 5** for typical symptom.

Fig. 2. Various distorted rice plant features due to DPS.



Fig. 3. Abnormal tiller growth due to DPS.



Fig. 4. Scattered low spots in rice field due to DPS. Affected plants are stunted with deeper green color.



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Fig. 5. Soft rot at the base of a rice plant makes tillers to separate and pull out easily.



Fig. 6. Fall armyworms are showing up in scattered rice fields.



Arkansas Rice Expo is August 10th

The 2016 Arkansas Rice Expo will be held at the Grand Prairie Center in Stuttgart, AR on Wednesday, Aug. 10. More details to follow.



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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