



# Arkansas Rice Update

Drs. Jarrod Hardke, Nick Bateman,  
Gus Lorenz, & Ben Thrash

August 16, 2019 No. 2019-24

[www.uaex.edu/rice](http://www.uaex.edu/rice)



DIVISION OF AGRICULTURE  
RESEARCH & EXTENSION

University of Arkansas System

## Harvest Progress

“Ain’t got time to shoot the breeze, got no time to blow, excuse me, mister, if you please, I gotta go.” Go cut rice, that is.

Rice harvest 2019 is underway. That’s not to say it’s full speed ahead, but we’re beginning. **Table 1** says about 10% of our rice should have reached 20% grain moisture or lower at this point. Several fields are at least at 19% based on samples that have been pulled.

No firm yield reports off the minimal amount harvested so far, but most of the rice out there looks good. The gulf coast cannot say the same, where high temperatures and disease pressure have left a lot to be desired for yield. We have been milder, so the outlook is good but it’s not in the bin yet.

The extended forecast of upper 80s and low 90s looks good for finishing much of this crop up. Rainfall amounts are forecast to be minimal, but with plenty of partly cloudy days anything is possible. Partly cloudy and higher humidity may slow the drying process as well. Now we start the waiting game for fields to get ready.

**Table 1. Percent of acres predicted to reach 20% grain moisture by week based on DD50 enrollment.**

Date	Percentage As of 8/16/19
Aug. 4 – 10	0.2%
Aug. 11 – 17	9.5%
Aug. 18 – 24	20.5%
Aug. 25 – 31	26.9%
Sept. 1 – 7	18.3%
Sept. 8 – 14	10.5%
Sept. 15 – 21	6.6%
Sept. 22 – 28	3.6%
Sept. 29 – Oct. 5	2.4%
Oct. 6 – 12	1.5%
Oct. 13 – 19	0.2%

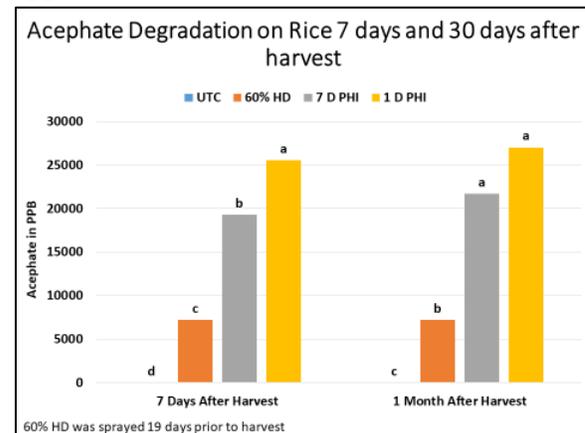
## The Use of Acephate in Rice

We have had steady rice stink bug pressure this year in rice, which has led to multiple conversations about what products will work best and provide some residual control. During these discussions, acephate (Orthene) has been brought up multiple times. **Acephate is not labeled in rice.** Multiple barges have been rejected at foreign ports due to the detection of acephate or its metabolites.

In 2018, we looked at the degradation of acephate in rice at multiple foliar timings (**Fig. 1**). While acephate does appear to breakdown fairly rapidly in rice, detectable levels of acephate are still present 1 month after harvest. These same trends were observed for methamidophos, the main metabolite of acephate (**Fig. 2**).

There is a lot of late rice this year that has just begun to head or will start to head in the next 10 days. These fields will most likely see high rice stink bug pressure. We need to stick to our labeled products, such as Warrior II (or similar generics) and Mustang Maxx. **The bottom line is acephate is not labeled in rice, and the use of this product jeopardizes the rice industry as a whole in Arkansas.**

**Fig. 1. Level of acephate detection after application in rice.**



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



# Arkansas Rice Update

Drs. Jarrod Hardke, Nick Bateman,  
Gus Lorenz, & Ben Thrash

August 16, 2019 No. 2019-24

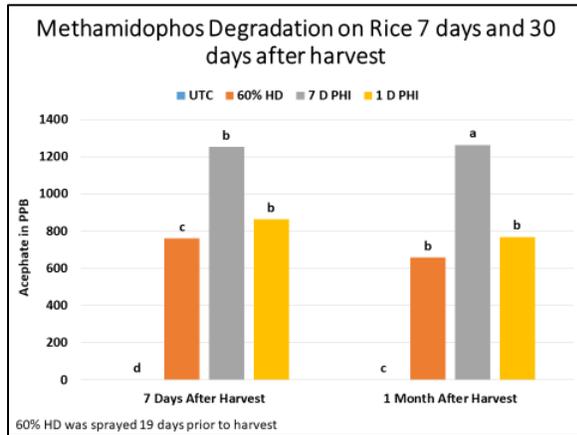
[www.uaex.edu/rice](http://www.uaex.edu/rice)



DIVISION OF AGRICULTURE  
RESEARCH & EXTENSION

University of Arkansas System

**Fig. 2. Level of methamidophos detection after acephate application in rice.**



## Harvest Aids for Use in Rice

Recent research evaluating the use of sodium chlorate as a harvest aid in hybrid rice have largely confirmed previous recommendations. Previous studies focused on varieties, so this work was conducted specifically on a hybrid (RT XP753) to be sure the results lined up. Generally speaking, varieties and hybrids seem to respond similarly to being salted.

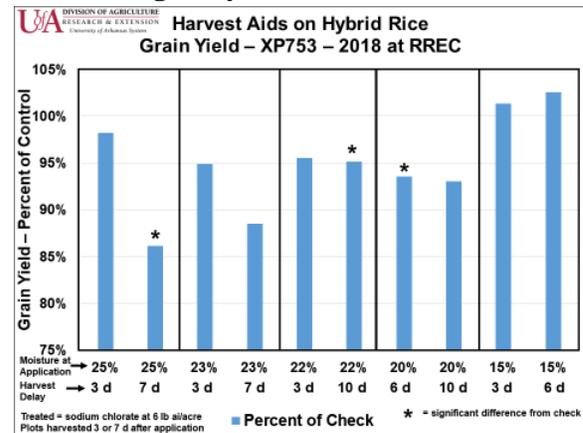
The existing recommendation is to wait until rice is below 25% grain moisture before making a sodium chlorate application, and stop applications once rice falls below 18% grain moisture. Harvest should occur within 4-5 days after application. The data for grain yield (**Fig. 3**) and head rice yield (**Fig. 4**) largely agrees with that recommendation.

If you look very closely into the details of the data there seems to be more risk of loss associate with salting a hybrid (XP753 in this case) when grain moisture is 23% or greater. So, I for now I recommend waiting until hybrids are below that point before salting. Another consistent outcome is that rice left for longer than 4-5 after application is impacted the worst in both grain

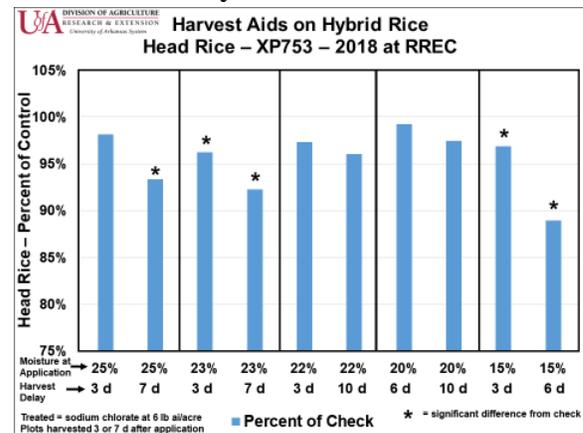
yield and head rice yield – if you're going to spray it, hurry up and cut it.

One thing noticeable between old data and this data, is that small plot combines continuously show a slight yield reduction between the control and treated plots. This is likely due to the impossible nature of adjusting air speed and reel speed from plot to plot jumping from higher to lower moisture rice. This is something a commercial machine in a large field can address readily.

**Fig. 3. Impact of sodium chlorate as a harvest aid on rice grain yield.**



**Fig. 4. Impact of sodium chlorate as a harvest aid on head rice yield.**



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

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



# Arkansas Rice Update

Drs. Jarrod Hardke, Nick Bateman,  
Gus Lorenz, & Ben Thrash

August 16, 2019 No. 2019-24

[www.uaex.edu/rice](http://www.uaex.edu/rice)



DIVISION OF AGRICULTURE  
RESEARCH & EXTENSION

University of Arkansas System

## Herbicide and Desiccant Drift on Maturing Rice

There have been a number of studies in the past few years from Arkansas and Mississippi looking at the effect on maturing rice from various soybean herbicides and desiccants. This time of year with rice trying to finish up and much being drained, it seems to be assumed that rice is past the point of injury at that stage – wrong.

The general theme regardless of the data source is that paraquat or sodium chlorate drift onto through late stages of development (soft dough, hard dough, draining) can still cause yield loss. These two desiccants can cause 10-20% yield loss at these times, occasionally more.

Glyphosate and glufosinate herbicides are a little different. Both can cause rice yield loss if drift rates are high enough and rice is heading or in the boot. Yield loss is usually only slight if rice is soft dough or later – but the response is variable so that's still not safe.

Take home message – rice is still susceptible to yield loss, sometimes major, until it's fully mature. Avoid drifting soybean herbicides or desiccants onto rice to avoid yield loss.

## Rice Advisor Now Available

Visit <http://www.RiceAdvisor.com> for your DD50 login, calculators for seeding rate, drill calibration, and fertilizer, and links to videos and publications. Let us know what you think!



## 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

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

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

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

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