



Arkansas Rice Update

Dr. Jarrod Hardke

May 11, 2018 No. 2018-11

www.uaex.edu/rice

Crop Progress

Flush'em if you got'em. It's hot, and it's dry. The current conditions of highs in the upper 80s to low 90s look to continue until some rain chances late next week. The heat means great things for rice progress, but it's going to need a little help to keep trucking along with these winds taking all our moisture away.

Some much improved conditions last week saw a major jump in planted progress to nearly 80% while emergence progress is up near 50% (Fig. 1-2). Add in spotty rainfall and flushing this week and we have a lot more to a good looking stand than many thought we would achieve.

The interesting part is we seemingly have a lot of rice that went from barely emerged to 2-leaf rice. It was growing and trying to emerge and now that it has been fully turned loose, it's progressing fast.

A good recommendation for an increasing number of fields is to spray herbicide and flush, then as soon as it dries up the rice will be big enough to fertilize and go to flood. Some fields are going to flood this week!

Fig. 1. AR Rice Planting Progress 2007-2018.

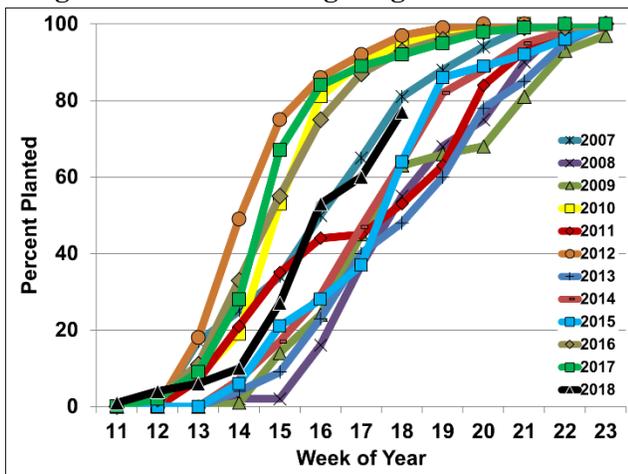
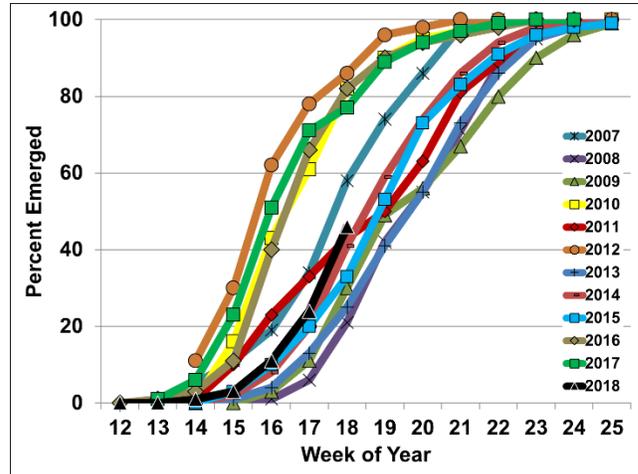


Fig. 2. AR Rice Emergence Progress 2007-18.



Time to Flood? Check the DD50!

We're getting really close to needing to take fields to flood (some already going) so it's a great time to check where you are based on rice development. Run reports: <http://dd50.uaex.edu>.

As of right now, in **Table 1** are some examples of optimum and final times to apply N based on emergence dates at different locations in the state from the DD50 program (using Diamond as an example). Keep in mind that you need to run your own reports based on specific cultivar, location, and emergence date. These predictions are based on 30-year weather averages, but each day that passes the average data is updated with the actual day's weather to be increasingly accurate.

Table 1. Current preflood N application timings based on DD50 accumulation at different locations in the state for Diamond.

County	Emerge Date	Optimum Window	Final Date
Clay	4/15	5/13 – 5/23	6/3
Clay	5/1	5/20 – 5/29	6/8
Lonoke	4/15	5/9 – 5/20	5/31
Lonoke	5/1	5/19 – 5/28	6/7
Chicot	4/15	5/7 – 5/16	5/26
Chicot	5/1	5/17 – 5/25	6/3

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Why We Apply N the Way We Do

Based on some questions received recently, it's a good time to review why we manage nitrogen (N) like we do in rice. Applying N immediately prior to flooding serves two very important purposes: 1) it incorporates the N into the soil where the plant can better take it up, and 2) it reduces N loss.

If N as urea is left laying on the ground, the loss is much greater than if it is incorporated into the soil and held there by a permanent flood. If you put a large amount of N on the ground well prior to establishing the permanent flood, you're going to experience a great amount of N loss before the plant gets a chance at it.

Some out there have already, or are thinking about, putting a large amount of urea around planting or at the 2-leaf stage. The earlier urea is put out prior to flooding, the greater amount of N will be lost. This will make managing N to maximize yield that much more difficult, and we'll end up over-fertilizing to compensate for the unknown amount of loss that's occurred.

Table 2 illustrates how little N we take up from a pre-plant incorporated N application timing versus the same rate applied pre-flood.

Table 2. N uptake efficiency and grain yield by N application timing.

Treatment	N Use Efficiency		Grain Yield
	lbs N/A	% N	bu/A
120 lb N/A pre-plant incorporated	32	27	125
120 lb N/A pre-flood	91	76	177

Weather You Like It Or Not...

As the hot, dry weather works its magic for growth it's also creating stress situations and changing management strategies. For herbicide applications to go out right now, and not be followed by a flush or a flood, it's a waste if you're spraying residual products. That is not to say that no herbicide applications should be going out, just that we need to pick and choose.

An application of a residual herbicide such as Command or Prowl is just going to lay there in this heat and sun and waste away. At the moment we're about 7 days away from any forecast rainfall. If you're going to spray the residuals, you need to flush or be going to flood, or keep them in your pocket.

If you need to spray right now and you refuse to flush in the residual (and you aren't ready for flood) then it's best to go across with a post-emergence herbicide like propanil for now. Then come back with residuals and anything else you need ahead of a rain, flush, or flood.

The topic has come up that some folks are just going to wait around until just prior to flood to spray again and then clean everything up with Loyant like it's a magic wand. Some of these fields already have 3-leaf barnyardgrass and 2-3 leaf rice. How big do you think that grass is going to be by flood time? How big are the other weeds going to be that Loyant doesn't get? There is no such thing as a true "salvage" herbicide. Most are used as "revenge" herbicides that perform poorly because we ask too much of them under the worst conditions. If we start treating Loyant this way right off the bat, we may send the new herbicide packing in a hurry.

Speaking of Loyant (again)...

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Be Careful of Loyant Drift On Soybean

The label for Loyant states that it should not be applied to rice when wind is blowing toward adjacent soybean fields. There is no distance restriction other than “adjacent” but be careful with this. Loyant is non-volatile and so far seems to stay put, but it will drift with wind. Injury to soybean can be severe in drift situations, but not as severe at extremely low rates as some ALS chemistry such as Regiment. **Fig. 2** shows soybean injury in demonstration plots last year.

Fig. 3. Loyant injury to soybean at a below labeled rate.



Bug Alert! For True Armyworm

Reports out of northeast Arkansas for true armyworm attacking seedling rice and mowing it back to the ground. Get out and scout around field edges, especially near wheat or tree lines. During the heat of the day, they're likely to be hiding under clods and in cracks, don't assume they're gone! Dig around and you'll find them, even under small clods. Treatment when injury is severe should be made either very early morning or late afternoon / evening to take advantage of their nighttime feeding behavior. Pyrethroids work extremely well – you won't necessarily have to use high end product rates.

Fig. 4. True armyworm feeding on seedling rice near field edge.



New DD50 Program is Live!

Check out <http://DD50.uaex.edu> for the overhauled DD50 Rice Management Program. We have tried to make this version extremely user friendly, but in doing so it is a little different than the old version. If you run into any issue, please call or text me directly at 501-772-1714 or send emails to riceadvisor@uaex.edu. It also works great on mobile phones and tablets.

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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>.

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.

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