

LOUISIANA RICE NOTES

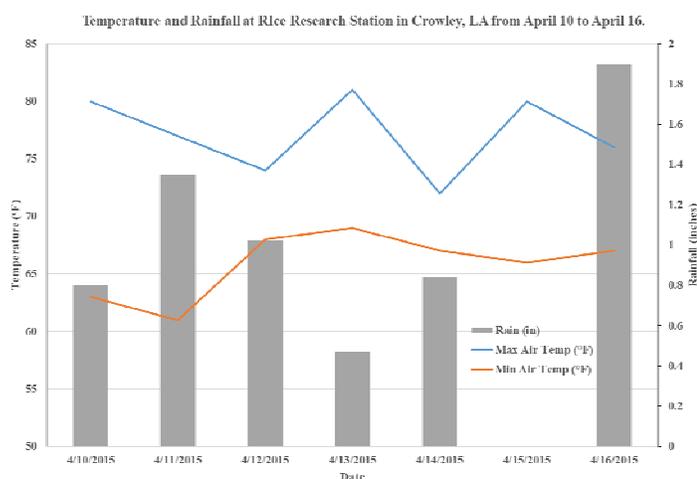
Drs. Dustin Harrell & Don Groth

April 17, 2015

No. 2015-04

Rain, Rain and More Rain...

Over the past 10 days all we have seen is rain, rain and more rain. Very little rice has been planted in Northeast Louisiana. In Southwest Louisiana however, I would estimate that 90 to 95% of the rice has been planted and most of that rice has emerged and is moving along nicely. In fact, when the rains first started last Friday, many producers' fields in Southwest Louisiana had already been flushed or were in need of flushing because they were low on soil moisture. So the rains were initially a welcome reprieve. The problem is that the rains never let up. Over the weekend at some locations received over 5 inches and even more throughout this week. The rain really stopped pretty much all field work this week. However, in many cases it has not stopped rice growth because the weather has been warm and the sun has come out from time to time. If we look at the temperatures and rainfall at the Rice Research Station in Crowley, you will see that it rained six out of the last seven days with a total rainfall of 6.4 inches.



During that same time, it has been fairly warm with a mean daily temperature of 71.5°F. Often we use accumulated DD50 units to help predict rice growth and development. DD50 heat units are an estimate of accumulated daily heat units above 50°F and are an estimate of a day's thermal quality for growth. It is calculated by taking the average of the daily high and low air temperature in °F and subtracting 50°F. The short of it is that the more DD50 heat units we accumulate the faster the rice will

grow and develop. Typically, we would estimate that seedling rice will grow a new leaf somewhere between every 100 to 175 accumulated DD50 heat units. At the Rice Research Station from last Friday (April 10) to this Thursday (April 16) we received approximately 151 DD50 heat units. Most of my research plots moved from 2- to 3-leaf rice to 3- to 4-leaf rice this week. All of this is to say that even though we field activities have stopped this week rice growth and development has not. Of course, all of this DD50 discussion assumes good growing conditions for rice and not for rice which has been submerged under water.

This brings me to the most ask question I have received this week. When seedling rice is submerged under water, how long can it survive? Well this is a question that really does not have an exact answer and does not (as far as I know) have research based information to base the answer on. Typically, the survival of a seedling would be related to several things including how deep the water was over the rice, variety or hybrid grown, water temperature, the "health" of the seedling prior to submergence, and so on. So with all of these different variables in play you can see that this question would not have a one size fits all answer. So to answer this question I polled all of the best rice farmers, consultants, and researchers I could to find the consensus was that under the current temperatures that we have and if the flood was not very deep over the top of the seedling we would feel confident that the rice could survive 5 to 7 days. After that time, the stand would probably start to thin.

So if the rice in the area was growing this week, assuming it was not under water, we can assume that the weeds were also growing. Which brings me to the next group of questions I was asked this week. All of which were related to herbicide applications and wet conditions. There are several scenarios that I was asked and so I wanted to share a few thoughts on the subject. One is that photosynthetic inhibitors herbicides, like propanil, need good growing conditions, good weed contact, and need to be rainfast prior to the next rainfall event to work best. So if the weeds are small, and covered with water, or you are not sure how long you will have before the next rainfall event, you may want to hold off on the application until conditions are more favorable for the herbicide activity. After all, you are paying for the herbicide and the application costs, so you may as well get the most of what you are paying for. Another situation, I would caution you about is applying Command treated fertilizer into a

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standing flood when you are expecting even more rain. The Command treated fertilizer and the herbicide can move in the water during standing water conditions in the field when the application is followed by high winds. In this scenario, the Command can move from the high side of the field to the low end or even from the top cut of a field to the bottom cut of a field. In these situations the Command would be concentrated (higher than the labeled rate) on one side which could damage the rice and would be diluted (lower than the labeled rate) on the other side of the field, which would provide poor residual weed control. The same thing could occur where you apply the Command treated fertilizer into standing water, raising the flood yourself followed by wind and water movement.

10 Things you need to know about rice sheath blight

1. Current rice varieties range from moderately resistant to very susceptible.
2. Sheath blight is a soil-borne disease and is not transmitted by wind-borne spores. The pathogen moves up the plant and from plant to plant by surface hyphae.
3. The thicker the rice, the more severe sheath blight is.
4. The more nitrogen fertilizer used, the more severe sheath blight is.
5. The sheath blight pathogen also causes aerial blight in soybeans and attacks many other crops and weeds, making it difficult to eliminate in a field.
6. If sheath blight is detected in 30% or more of the stops in a field while scouting susceptible and very susceptible varieties, fungicide applications are advised to reduce damage. For moderately susceptible and moderately resistant varieties, the percentage increases to 50%.
7. The best timing for a sheath blight fungicide application is at the boot growth stage (2-4 inch panicle).
8. Fungicide applications to suppress sheath blight should be applied before 50%-70% heading. Application as few as five days after this growth stage will provide poor control of sheath blight. Allow time to obtain a fungicide, schedule the application, and adjust for poor weather conditions.

9. Under heavy sheath blight pressure or when growing very susceptible varieties, two applications may be needed to effectively suppress sheath blight.
10. Fungicide-resistant sheath blight pathogen populations have been found in south central Louisiana and are spreading rapidly. A sound fungicide resistance management system is needed.

Random Rice Facts



Did you know... that according to the USDA - National Agriculture Statistics Service, the United States produced approximately **221 million hundred weight** of rice in 2014? That rice has a value of approximately **3.1 billion dollars**. Well, did you know that the population of China can consume that much rice in approximately **12 days!** With that in mind, how important do you think the China market would be if we could gain access to it for U.S. grown rice? Just a little food for thought!

Additional Information

Louisiana Rice Notes is published biweekly to provide timely information and recommendations for rice production in Louisiana. If you would like to be added to this email list, please send your request to ddharrell@agcenter.lsu.edu.

This Information will also be posted to the LSU AgCenter website where additional rice information can be found. Please visit www.LSUAgCenter.com.

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Upcoming

- May 28 Southwest Rice and Soybean Field Day, Fenton.
- June 17 Acadia Parish (Rice Research Station South Farm) Field Day, Crowley.
- July 1 Rice Research Station Field Day, Crowley.

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