

LOUISIANA RICE NOTES

Dr. Dustin Harrell

May 26, 2015

No. 2015-06

Grey clouds, grey questions, and grey answers

Every year is unique but often they will be somewhat similar to a year in the recent past. However, I cannot recall a year like the one we are having this year. Sure, we have had wet years but, I am not sure that we have ever had a year with constant, and I do mean constant, rainfall like we are having this year. Fortunately, we did have a very brief window of dry weather when we were able to drill seed rice in late March but, in many places, the soil has not been dry since. If the soil did dry in places it was only very briefly. The rainfall table below for the Rice Station at Crowley below illustrates this very well. You will notice that we have had 9 days since the first of April where the rainfall totals were 1 inch or more. In addition, we have also had 6 additional days with rainfall totals between 0.3 and 0.95 inches. If you add in the many days where we have received those brief pop-up afternoon showers, there really has not been a lot of time for soils to dry.

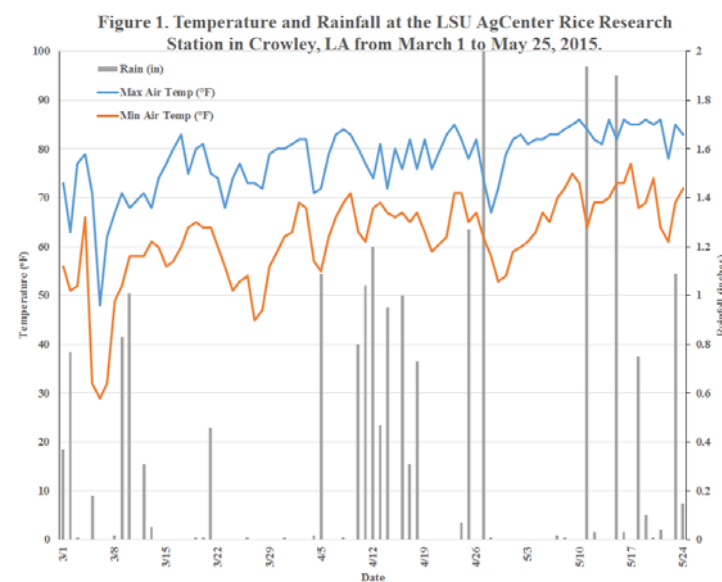
average already in May. The 0.8 inches of rainfall over the average for the month of May might not sound like a whole lot, but if you add in the fact that the Weather Channel says that we have between a 50% to 80% chance of rainfall for each of the remaining five days of May, that number will be much higher before it is all said and done. This wet weather has caused a lot of wet weather related problems and questions in this year's rice crop, many of which do not have a perfect answer. Speaking with a rice producer last week, he put it perfectly when he said that the grey clouds have caused a lot of grey questions. Unfortunately, for some of these questions I can only give grey answers. With today's newsletter, I wanted to address many of these questions. But first and foremost I need to address the leaf blast questions that have arisen lately.

Table 1. Average and 2015 rainfall data for Crowley, Louisiana.

Date	Mean Rainfall (in)	2015 Rainfall (in)	Difference (inches)
March	4.0	4.1	0.1
April	4.0	11.0	7.0
May	5.2	6.1	0.8
June	7.1	0.0	0.0
July	5.6	0.0	0.0
Total	25.9	21.2	-4.7

Strategies for controlling leaf blast and rotten neck blast

Leaf blast has shown up early and often throughout Southwest Louisiana on the medium grain rice variety Jupiter. Leaf blast has also shown up, although to a lesser extent, on the long grain variety CL151. This early occurrence is somewhat surprising however, we have had the perfect conditions for the development of this disease and sheath blight for that matter – prolonged warm (daily highs <90°F) and moist (high relative humidity) conditions. The occurrence of blast can be increased if the flood is lost and if high rates of nitrogen (N) fertilizer are



If we look at the mean rainfall data for Crowley (Table 1) and compare it with the rainfall we have had so far this year, you will see that we were right on the average for March, we were seven inches over the average for April, and we are 0.8 inches over the

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used. Which brings up one of the more frequent questions this year:

Should N fertilizer be reduced this year since leaf blast has shown up early?

Well the answer to this question is no. Rates of N fertilizer applied to rice fields should not be reduced this year as compared to other years just because blast has shown up in the area. The optimum rate of N fertilizer needed to achieve optimum rice yields has not changed this year. You still want to achieve high rice yields, correct? The key is ***not to over-fertilize*** rice. That being said, the recommended rate range of most rice varieties in Louisiana is between 120 and 160 pounds per acre. However, there are two particular varieties that the recommended rate of N ranges from 90 to 130 pounds of N per acre. Can you guess which two? You got it, Jupiter and CL151. So, this year be very sure not to over fertilize these two varieties. Not only will this increase the chances of rotten neck blast but it will also increase the chance of lodging!

Most rice in the area is around the green ring stage of development. Another prominent questions I have been asked lately is:

What criteria should we use to determine if we need a two applications of a fungicide to help control blast?

This is one of those grey area questions that does not have a

Active blast lesions



Inactive blast lesions



straight forward, in print, recommendation. But before I answer that question, let me first cover our basic leaf and rotten neck blast guidelines. We recommend applying a strobilurin (group 11) fungicide like Quadris, Equation, or Gem or a strobilurin & propiconazole fungicide mix like Quilt, Quilt Xcel, or Stratego at 50% to 70% heading to help suppress rotten neck blast. Rotten neck blast is best controlled when the fungicide application physically contacts the head. Early applications of the aforementioned fungicides will help in suppressing leaf blast but are only active for a short period of time. This is typically around two weeks. The occurrence of leaf blast does not guarantee the occurrence of rotten neck blast, which can be devastating to our grain yield. If you choose to apply two applications of a fungicide for blast control the first application would be *best* used when the rice is in the boot with a panicle of approximately 4 inches (coincidentally, this occurs at the same time as the optimum time to use a fungicide to control sheath blight). This would insure an overlap in protection for blast when the rice emerges from the boot. That being said, a lot of the blast we are seeing on Jupiter is quite severe and is occurring around green ring. After speaking to Dr. Groth extensively on this issue, he suggested that once blast is identified, use a transect to take note of the severity of the blast at several stops in the field. Take note of how much blast is occurring on the newest leaves of the plant. Return and scout for blast using a similar transect of the field. After the second transect of the field note if the blast has

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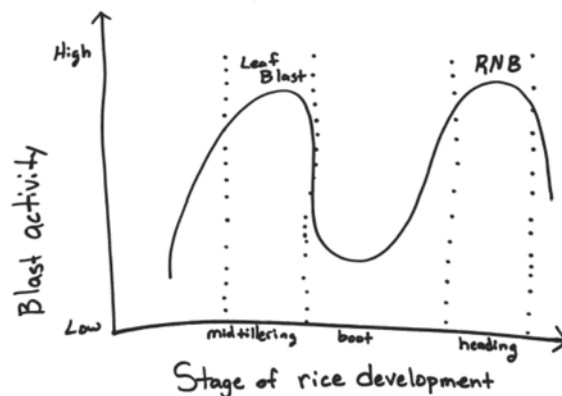
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progressed or regressed since the last evaluation. Is it showing up on the newer leaves? Are the lesions active or inactive? Typically, tan-dried looking blast lesions are fairly inactive; while blue-grey and moist lesions (sometimes with a visible light fuzzy appearance) are active. If you see that the blast is lessened after one week you can then feel better about waiting for the optimum time to apply a fungicide for blast, 50 – 70% heading. If the blast has advanced and is on the newest leaf, a two application scenario may be necessary. Remember, that the occurrence of blast is bi-modal during a growing season. By that, I mean that leaf blast generally is greatest at mid-tillering and then tends to decline later in the year, while occurrence of rotten neck blast (RNB) is greatest beginning around heading. The rates for different fungicides for blast are listed in Table 2. The highest rates for blast are recommended for the best blast control. You will also notice below that the



Sercadis and Convoy fungicides which are the recommended

Table 3. Efficacy of fungicides in managing diseases of rice
Efficacy categories are as follows: P=Poor; F=Fair; G=Good; VG=Very Good; NL = Not Labeled for use against this disease.

Fungicide Information				Disease			
Class and Mode of Action Group ¹	Active Ingredient	Product(s) ²	Rate ³ (fl oz)	Blast	Sheath Blight	Cercospora	Kernel Smut
Qol Strobilurins Group 11	Azoxystrobin	Quadris 2.08 SC Equation 2.08 SC	9-12.8	G	VG	P	P
	Trifloxystrobin	Gem 500 SC	3.1-4.7	VG	G	P	P
Carboxamides Group 7	Flutolanil	Convoy 3.8 F	16-32	NL	G	NL	NL
	Fluxapyroxad	Sercadis 2.47 SC	4.5-6.8	NL	VG	NL	NL
Demethylation Inhibitors (DMI) Group 3	Propiconazole	Tilt 3.6 EC	6-10	NL	F	VG	G
		Bumper	6-10				
		PropiMax	6-10				
Mixed ⁴	Azoxystrobin, Propiconazole	Quilt 200 SC	14-34.5	G	VG	VG	G
	Azoxystrobin, Propiconazole	Quilt Xcel 2.2 SE	15.8-27	G	VG	VG	G
	Trifloxystrobin, Propiconazole	Stratego 250 EC	16-19	VG	G	VG	G

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fungicides for the strobilurin-resistant sheath blight, are not labeled for blast. You will also notice that Stratego and Gem are slightly better blast fungicides than Quadris, Equation, Quilt, and Quilt Xcel and slightly less effective for sheath blight. Another often asked question this year is:

Should I use a fungicide for blast if I do not find it after scouting?

Well, if you are growing a susceptible variety like CL151 or Jupiter, since it is showing up so strong in these varieties this year, then the answer is yes! My thoughts are that every acre of Jupiter and CL151 in Louisiana this year should receive a fungicide application.

Rainfall also having an effect on mid-season N fertilization

This year has really been an odd year. This is the first time that I can remember that the constant rainfall has had an effect on not only pre-flood N fertilization but also mid-season N fertilization. Grass runways near rice fields have been constantly wet and muddy over the past several weeks and some flying services are choosing to takeoff only from paved runways. Due to this and the extra expense of flying farther to the fields, many flying services are charging a ferrying fee to producers. The fee varies depending on the flying service used however, it is very significant in many cases. I was told that one service was charging one dollar for every mile away from the airstrip per acre of rice fertilized. So if you were fertilizing 500 acres which was 2 miles away from the nearest paved airstrip that would cost you an additional \$1000. Very significant to say the least! Because of this extra expense, I have gotten several calls asking:

Should I delay my mid-season fertilization until the grass airstrips dry so I do not have to pay this fee?

The answer to this is not straight forward and you have to consider many factors. First, the optimum time of application for mid-season N fertilization is between green ring (panicle initiation) and one-half inch internode (panicle differentiation). Applications after this time period you will most likely not get the greatest benefit (for the main crop) from the application.

Applications slightly later than this recommendation window may not be too significant but I would not push the application much later than this unless you are growing a hybrid. That being said, before you decide to take a chance and delay your mid-season N application due to wet runways answer these questions first: 1) What is the future weather forecast for my area? If it is not probable that there will be ample time for the grass runway to dry then you need to go ahead and pay the fee and fertilize now; 2) Was the first (pre-flood) N application on dry ground? If no, do not delay mid-season N application; 3) Is the rice showing any signs of N deficiency? If so, do not delay N fertilization.

Wet weather causing early season problems in North Louisiana too

The wet weather in North Louisiana is causing similar problems now as what we saw in Southwest Louisiana earlier in the year.



One producer sent me the following picture this weekend of his “stretched” rice. Stretched rice generally occurs after heavy rainfall events when young rice is submerged under water. Many times wind can actually cause the water to stack-up in certain areas of the field and make the water even deeper. In these situations, rice tries to quickly outgrow the flood to avert

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dying. Once the rice makes it out of the water it can again intercept sunlight and begin to grow normally. If the rice does outgrow the flood, a second problem typically occurs when the water is drained off of the field. In many cases, the rice will not be able to stand up because it has grown so quickly vertically (and not at the base of the plant) that the stalk cannot immediately support itself. The result is that the plant will lay down and stick to the soil surface. As the soil dries, and especially if it dries quickly due to high winds, the soil will hold the plant down and cause the plant to desiccate and die.

What is the best way to avoid killing “stretched” rice?

The water level should be drained until a skim of water is left on the field for help “stretched” rice. The skim of water helps keep the “stretched” rice from sticking to the soil. Once the rice begins to recover and stand up on its own, then the field can be completely drained.

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 dharrell@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.

Upcoming

- May 28 Southwest Rice and Soybean Field Day, Fenton. (8:30)
- May 28 Vermilion Parish Field Day, Gueydan/Klondike. (4:00)
- June 9 Evangeline Parish Field Day, Mamou.
- June 16 Acadia Parish (Rice Research Station South Farm) Field Day, Crowley.
- June 30 HorizonAg field day, Rayne (GF&Z Farms, 9:00)
- July 1 Rice Research Station Field Day, Crowley.
- July 21 Northeast Louisiana Field Day.

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