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LOUISIANA RICE NOTES

Drs. Dustin Harrell and Don Groth

July 26, 2017 No. 2017-9

Rice yields improve but sheath blight widespread

In the southwest part of the state, rice harvest was set to begin in early July however, almost daily rainfall events slowed progress significantly. We have recorded a measurable rainfall event in 16 out of the 26 days so far this month at the Rice Research Station with a total rainfall accumulation of 5.45 inches. Nine of those rainfall events came on consecutive days between July 11th and 19th. Others in the area have reported receiving over 7 inches of rain during that same time. Obviously, this has had an effect on early yields and late season disease pressure.

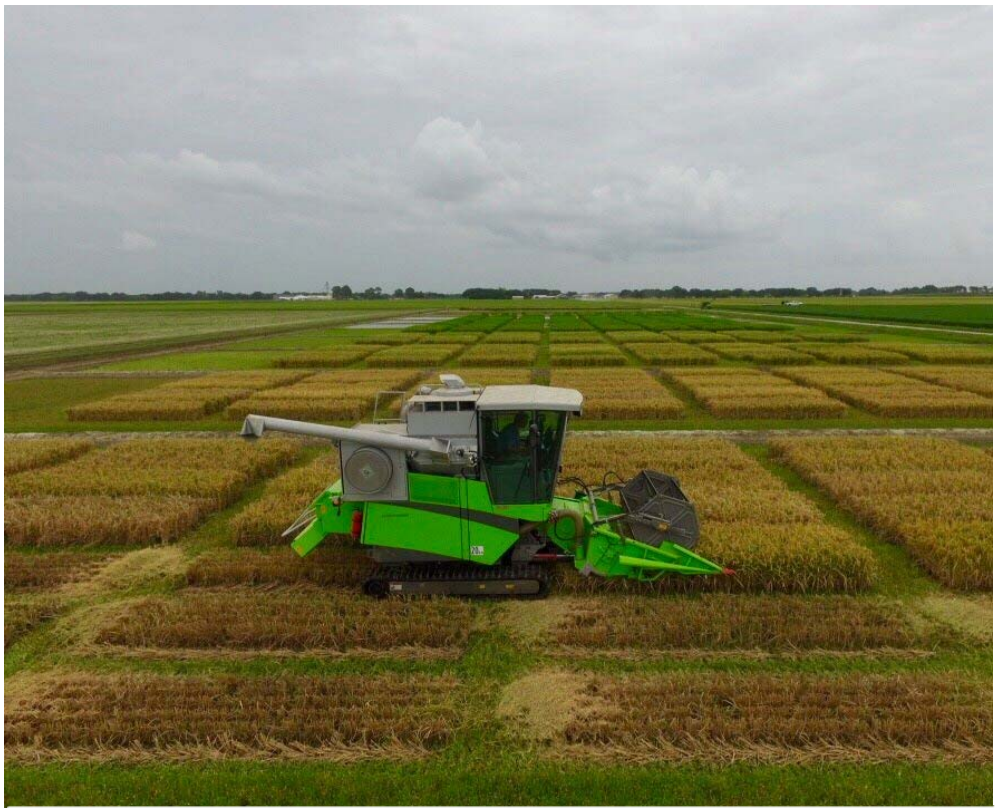

Figure 1. Rice harvest began at the H. Rouse Caffey Rice Research Station on July 25, 2017.

Early rice yield estimates were considered average to a bit low in some cases. Word of mouth reports averaged around the mid-40 barrel range (about 7,300 lb/A and 162 bushels/A) with many reports for rice in the upper 30 barrels and a handful in the upper 40 to 50 barrel range. This was discouraging to say the least considering how well this season started out. We did have many mid to late season problems associated with flooding, extended periods of overcast and rainy conditions, and mid-morning rains and high winds during flowering that definitely had an effect on this years' crop. Sheath blight pressure seems to be the biggest culprit for some of our lowest performing fields this year. The conditions have been perfect for the development of this disease. Dr. Groth has put together a great article below addressing why

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the sheath blight pressure has exploded this year.

This past week we actually have had a few consecutive days of dry weather and a lot more rice has been harvested. Yield reports have really improved despite the high sheath blight pressure. Of course, many reports that are texted to me generally trend on the higher side because many people do not like to report the low yielding fields. I hope that these improved yields continue to hold out as we move forward. Please be sure to text me your yields as you get them so I can put together the next yield report. The more numbers we have, the better the data set and the better understanding of the overall yield trends this year for the state. Thank you to all those who have reported to me this go around. The yields so far are presented in Table 1.

Louisiana Flood Recovery Grant

For information on the Louisiana Flood Recovery Grant please visit the LDAF website at http://www.ldaf.state.la.us/programs/2016-louisiana-farm-recovery-grant-program/
The application process will begin on July 26 and will run for 36 days.

Table 1. Reported rice yields in Louisiana. July 26, 2017

Parish	Variety	Yield bbl/A	Acres	Moisture
Acadia	XP753	56	?	green
Acadia	7311	48	?	green
Acadia	Mermentau	41	?	green
Vermilion	Mermentau	39	?	green
Acadia	Mermentau	42	?	green
Acadia	CL153	53	94	green
Acadia	CL153	48	97	green
Acadia	Mermentau	51	105	green
Acadia	CL111	50	131	green
Acadia	CL111	48	152	green
Vermilion	CL153	52	60	green
St. Landry	Mermentau	47	312	green
St. Landry	CL111	47	171	green
St. Landry	CL153	46.6	59	green
Jeff Davis	CL153	44	165	green
Jeff Davis	Jazzman2	32	140	green
Acadia	CL111	53.6	93	green
Acadia	CL111	50.7	588	green
Acadia	CL153	49	44	green
Acadia	XP753	57	39	green
Vermilion	XP753	54	139	green
Vermilion	XP753	58	73	green
Vermilion	XP753	56	71	green
Vermilion	XP753	51	94	green
Cameron	CL111	43.1	164	green
Cameron	CL153	44	120	green
Vermilion	CL111	52	?	green
Vermilion	CL111	53	?	green
Vermilion	CL151	59	?	green
Vermilion	CL151	60	?	green
Vermilion	CL153	55	?	green
Vermilion	CL153	53	?	green
Vermilion	CL172	54	?	green
Vermilion	CL172	53	?	green

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Late Sheath Blight

I am hearing more reports of sheath blight in rice fields than I would like. There are several reasons this could be. The most likely is the extended rain pattern we had this year. I do not remember a year this wet with as many rainfall events. This increases disease severity over a longer period of time and increases fungicide weathering. Typically rice fungicides last 14 to 28 days under normal conditions. Normally, this takes us through the critical grain filling period by holding down sheath blight below the upper third of the canopy. Late season development after grain filling usually does not affect yields and quality as much as early season disease. Hopefully this is the case and damage will not be too great.

A second possible reason is fungicide resistance in the sheath blight pathogen population. We know that strobilurin resistance is prevalent in many fields and is moving into new fields every year. This requires us to switch to an alternate mode of action, the SDHI fungicides Sercadis and Elegia. These two fungicides are good against sheath blight but tend to ware off faster than Azoxystrobin (Quadris and Quilt). Also, you may be using a strobilurin fungicide and not know you have resistance in that field. Resistance to the SDHI fungicides may also occur based on recent field experience and that could be causing some of this sheath blight development. Hopefully, we will have Amistar Top next year that has a component in it that has a different mode of action and has activity against the wild type, strobilurin, and SDHI resistant strains.

A third possible problem is application technology. With all of the rain we had this year there were limited windows to correctly apply fungicide to our fields. From fungicide timing trials conducted at the Rice Research Station, where fungicides were applied at 8, 10, AM, Noon, 2, 4 and 6 p.m., the time of day did not affect fungicide performance. However, rain just before and right after application

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reduced fungicide performance. Fungicides need 2-4 hours of drying to become resistant to weathering. Also, large water droplets on the plant after a rain allowed the fungicide to roll off the leaves and into the flood water. In several fields sheath blight was rampant in areas near power lines, near buildings, and tree lines where planes had to pull up to avoid these obstructions. With all of the difficulties, I think our aerial applicators do a great job of taking care of our fields.

A forth possible problem is varietal susceptibility. Unfortunately, a large portion of our current varieties are very susceptible to susceptible to sheath blight. We have been able to grow these varieties because of the availability of effective fungicides and tolerance to sheath blight in newer varieties. Tolerance is expressed as the ability of a crop to yield even in the presence of disease. In explanation, older very susceptible varieties like Lemont and LaBelle could lose 25-50 percent to sheath blight but newer varieties with the same rating only lose 14-17 percent under severe disease pressure. That is still too much and we need to use fungicides but the risk is not as great as it once was. I have also heard from several consultants and farmers that CL153 appears to have more sheath blight than other similar susceptible varieties. In my inoculated sheath blight disease nurseries CL153 rated 7.3 and CL111 rated 7.5 on a 0-9 severity scale which are not significantly different. However, in one of my off station trials in a farmer's field of CL153 I also noticed more initial sheath blight lesions than I had seen before. I also noticed that the CL153 had tillered very well and had a thick canopy early in the season. This I believed allowed the sheath blight to infect earlier and spread more effectively in the lower canopy.

Thirty some years ago, I was with Bob Verret the Acadia parish agent talking to an older rice farmer who we had just check his field for disease. He made the statement that he always made more rice in the years when he pumped more. That statement stuck with me since almost all of our disease need moisture to develop and every dry year we had problems with disease developing in our nurseries and trials. Although diseases are more severe during years with numerous rains, rains can also cause problems with pollination, seed filling, shattering, nutrient loss, etc. Let's hope for a better year next year with fewer problems.

Additional Information

Louisiana Rice Notes is published periodically 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.

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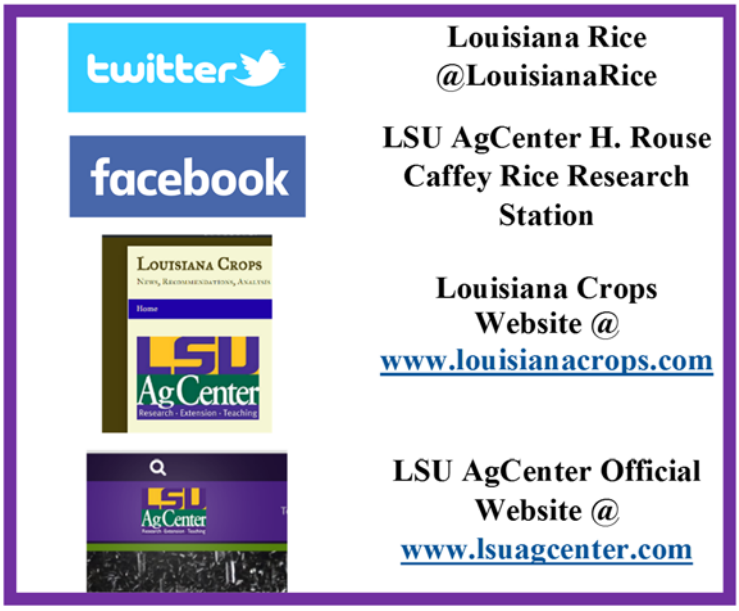
This information will also be posted to the LSU AgCenter website where additional rice information can be found. Please visit www.LSUAgCenter.com.

Remember you can keep in touch with what is going on in the Louisiana rice industry by using these resources:



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