



Last week I showed photographs of blast in a field of CL151. The photograph at left was taken in our verification field in Vermilion parish. It is CL151. Yesterday afternoon we also found a few lesions in a field of Jupiter. In both cases it is not a matter of excessive fertilization or of letting the field dry out. The Jupiter field is the one I showed last week where we used no grass herbicide because we used a pinpoint flood water management system. It definitely never dried out and it actually looks like it could use a little more nitrogen so I do not think it is over fertilization either.

The field of CL151 was drill seeded, but we established a permanent flood as soon as we could after the second Newpath application.

Below is information written by Dr. Don Groth on blast and fungicide use to control it.

Last year we saw some leaf blast in CL151 in commercial fields. Most of the time the disease only developed under favorable cultural conditions for blast including loss of flood, excessive nitrogen, tree lined fields, and on sandy soils. This year we are seeing more leaf blast, even under conventional cultural management conditions. This suggests that we might have a significant blast problem this year and it is recommended that a fungicide be used on this variety. In general, if the rice is not dying from leaf blast, we recommend not spraying for leaf blast but use a fungicide at heading. The primary control method for leaf blast is to increase the flood depth to ensure all of the soil is covered with water and not to use too much N when top dressing. The best fungicide application timing for blast control is at 50 – 70% heading, when most of the heads are emerging but not completely emerged. Before head emergence fungicide activity is poor and after this growth stage efficacy decreases rapidly. Heading is a little later than when sheath blight fungicides are typically applied but control should not be compromised since CL151 is tolerant to sheath blight damage. This is also an acceptable timing for *Cercospora* control. Only fungicides containing Strobilurins have blast activity. These are Quadris, Gem, Stratego, and Quilt. Gem has the best blast activity but is not easily obtainable if at all available. The Gem rate is 8 to 9.6 oz/A of the 50 DF formulation. Quadris can be applied at heading at 9-12 oz/A and has good activity against blast. Stratego can be applied until rice is headed at 16 to 19 oz/A. Quilt's label is more restrictive and says not to apply Quilt after heads have emerged. The rate of Quilt is 28 to 34 oz/A. Always read the label before applying a pesticide. Consult your local cooperative extension agent if you need additional information.



Wednesday while checking our verification field in Concordia parish we kept finding plants showing the symptoms visible in the upper photograph. At first I thought the injury was from the rice levee billbug or the black stink bugs we have incorrectly called black rice bugs, but after checking quite a few plants we could not find any insects. While splitting the crown of the affected plants I smelled a foul odor resembling rotting potatoes and remembered a bacterial disease call Crown Rot that had these characteristics.

We brought plants to Drs. Groth and Rush for their analysis. There is nothing we can do about the disease and it does not appear to be yield limiting. The variety is Catahoula, but I think it has more to do with the environment than the variety. The photo at right is of the base of a tiller separated from the crown of the plant.





We were called to a field where the farmer thought he had volunteer hybrid rice in it and could not understand why because he had never planted hybrid rice. In another field the farmer suspected much the same thing.

They were both right and wrong. The plants are hybrids – crosses of red rice with Clearfield varieties that probably occurred two years ago.

In the photograph at right you can see plants in the foreground with purple discoloration on the leaves and some in the background that lack the purple color. In the photograph below there is almost no discoloration. In both situations some plants are pubescent (hairy) and some are glabrous (smooth). In scientific terms the populations are segregating. If it was the first year after a cross the population is uniform, but the second year everything possible shows up.



The plants in the field shown in the bottom photo (on the previous page) are probably crosses with CL161 which had been planted there before. In the other photograph I do not remember the Clearfield variety. Segregation is easy to see in the field depicted in the smaller photo. The green plants that are obviously outcrosses probably have two copies of the resistance gene and theoretically would represent about one fourth of the population. The plants showing purple discoloration probably have only one copy of the resistance gene, thus are somewhat sensitive, and theoretically represent about one half of the population. The other one fourth of the population would not be resistant and was probably killed by the herbicide.

We have been getting lucky for the past several years. Last year's hurricanes may have contributed by causing more shattering. While some outcrossing has already been well documented I have not seen as much as this year. In all likelihood many of the red rice outcrosses were harvested so only a few plants showed up in the next rotation. The hurricanes upset that apple cart.

The field of rice at right looks pretty lousy. It is the most advanced rice I have seen this year. It was not planted. In fact, the lower paddies have even more rice in them. I do not know the variety because we happened to see this while going to another field and were able to confirm that it is all volunteer rice. If it is a conventional variety there is no problem, but if it is a Clearfield variety it is inviting outcrossing at the very least.

I did recommend the farmer apply glyphosate to the first field I saw because it was so heavily infested. That may seem drastic, but it will cost more in the long run if he does not prevent it from going to seed this year.







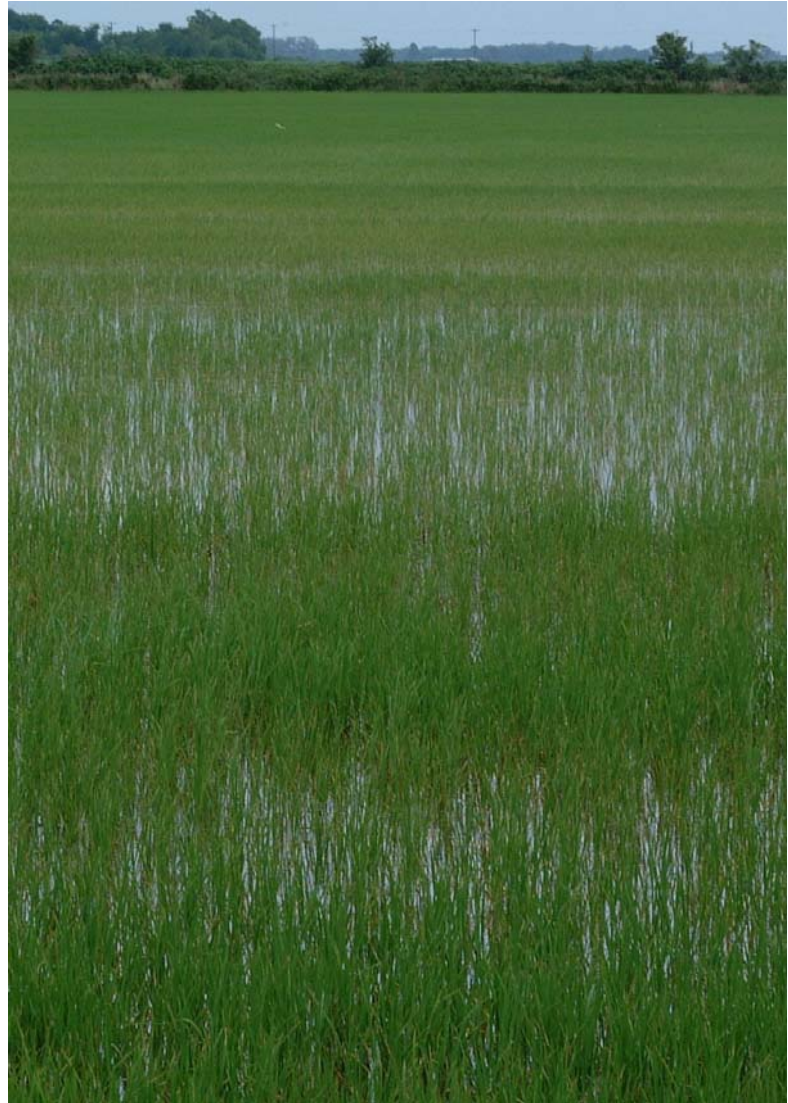
Above are photographs taken at an off station location where Dr. Dustin Harrell is investigation the role of zinc in localized decline. In the top photograph the first 5 plots have 0, 5, 10, 15 and 20 pounds of actual zinc per acre applied to them. The second row has the same zinc application rate and sequence, but was topdressed with urea while the first row was fertilized with ammonium sulfate.

Plants shown in the lower left photograph have no zinc on them and exhibit the typical symptoms of localized decline. The plant in the photograph at lower right is from one of the high zinc plots that only received urea as a nitrogen source. It appears that both zinc and sulfur are involved in the problem. The plant at right is exhibiting sulfur deficiency.



Early in the season we were asked to revisit our recommendation that rice not be planted if soil salt levels were above 750 ppm. Because we did not have any research to support this we chose to be conservative. It now appears that was the correct decision. We are getting more reports of salt injury as seen in the photograph at right. Some farmers who rely on surface water no longer have fresh water. The water in this field tested at 1100 ppm. A soil test is to follow, but clearly there is serious injury.

The bottom photo is to remind you to get ready for stink bugs as your rice begins to head. We have observed them on the borders of nearly every field in grasses like the crabgrass shown below.



In the May 22 edition of field notes I showed the photograph at right and two others. The variety is Neptune. At that time we thought the injury was from Regiment because the injury showed up within two days of the Regiment application. Dr. Webster saw the photographs and immediately contacted me. He said he did not think it was Regiment. He visited the field, took samples and had them analyzed. He was right – the problem is Newpath injury. I will not speculate on how it got there in this format.

