Field Notes
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I am still getting quite a few calls about the use of fungicides in rice this year. Two things separate this year from others; first, sheath blight has been fairly light until this week and second, narrow brown leaf spot remains a question. We do not have the ability at this time to either scout effectively for it or predict its likelihood of occurrence. This makes the application of a fungicide to control this disease a preventative treatment rather than a corrective one. Most of the farmers in the southwestern part of the state are telling me they cannot afford to take the hit they did last year and are very willing to spend the money on a fungicide.

The only fungicides we can recommend at this time to control narrow brown leaf spot (Cercospora) must contain propiconazole. This is the active ingredient in Tilt, Bumper, Propimax and perhaps others of which I am not aware. It is also one component of Stratego and Quilt.

In the northeastern part of the state this fungicide in mixes with Gem or Quadris as Stratego or Quilt respectively, has been used for several years because the propiconazole fraction is used to control false smut and kernel smut. This treatment is also a preventative, but less of a gamble because of the regular occurrence of the disease.

In the past we used the equivalent of 4 ounces of Tilt per acre to control the smuts, however Dr. Don Groth's research indicates it will take 6 ounces per acre to control Cercospora. In our verification fields we treated two without finding any disease because of our fear of what might happen. This week we started picking up sheath blight which makes the application of a fungicide more justifiable. Unfortunately we cannot continue to scout and monitor the progression of the disease then make our application at a time when we think we will get the most economical benefit. Because propiconazole cannot be applied past split boot the fungicide to control sheath blight will be applied earlier than we would like in most cases. To correct this problem we have to use more of either Gem or Quadris in the mix to provide the length of control we will need to take the crop to harvest.

The most common applications in the **southern** part of the state have been either 19 ounces of Stratego alone or 21 ounces of Quilt plus three ounces of Quadris per acre. In the **northeastern** part of the state we will probably recommend 14 ounces of Quilt plus 5 to 8 ounces of Quadris or 14 ounces of Stratego plus 1 to 3 ounces of Gem per acre. The varying rates of Quadris and/or Gem are to adjust for the severity of sheath blight at the time of treatment. The different rates of Quilt or Stratego are to adjust for control of the smuts or narrow brown leaf spot based on the amounts of propiconazole contained in the premixes. If any of this is unclear please contact your local county agent. Where sheath blight pressure is light at the time of application we will use the lower rates, but where we have heavy pressure early we will use the higher rates.

Ironically the heaviest sheath blight pressure we picked up this week was in East and West Carroll parishes on CL 171 and CL 161 respectively. Both will probably get a fungicide application next week.

On the preceding page are three photographs in sequence of a problem we encountered in Tensas parish yesterday. We believe the problem is potassium deficiency. The symptoms are most pronounced on lower leaves. That points to a nutrient that moves in the plant. The veins of the affected leaves are green, but between the veins are chlorotic (yellow) tissue and brown spots. These are typical of late season potassium deficiency.

To confirm the identity of the problem we applied a pound of K_2O to a 20 feet by 20 feet square area. This represents about $1/100^{th}$ of an acre. One pound of product to this area is approximately equivalent to 100 lbs per acre. If we are correct we should see some response by the time we visit next week. The late application will not undo the spots on the leaves or the damage already done, but the new leaves should be at least more normal. Whether the response will be cosmetic or economic will be difficult to assess. We'll let you know what happens.

One question is, "Why did this happen on a soil that will usually test high in potassium?" We have to go back to 1927 (or earlier) to find an explanation. When the Mississippi River overflowed in 1927 (and eons ago) it often deposited sand as the water flowed over the land, frequently in localized areas. As the water came to a standstill the silt and clay particles settled over the sand producing layers of sand below clay. When this field was precision leveled some of that clay was removed. The fertilizer was applied when the soil was very dry. Then when it was flooded the potassium moved downward into the sand where it flowed laterally until it reached areas of clay. The areas it moved from show the deficiency symptoms and the areas it flowed to appear very dark green. This problem is not pronounced with phosphorus because it is less soluble thus less susceptible to leaching than potassium. Some nitrogen probably moved along too aggravating the problem.

At right is a photograph of a developing rice panicle about ½ inch long. This is a few days after panicle differentiation. In more common terms the plant is entering the boot stages, the time in plant development when the panicle is beginning to really grow rapidly. Dr. Dunand has stated that panicles can double in length each day if conditions are favorable and I have stated the difference in time between a four inch long panicle and a six inch long panicle can be measured in hours. I mention this because of the critical nature of getting fungicides applied on time and before boot split if the fungicide contains propiconazole.

The picture above (not taken by me) begs the question, “How many county agents does it take to change a flat tire?” Only one, the rest supervise.

Actually the group shown is not just county agents, but also has in it an LSU Ag Center research scientist and a research associate and the statement is not to ridicule the rice agents. This was taken at the beginning of a tour of all of the verification fields throughout the state. At every stop they walked the verification field just as we have throughout the years of the program. Then we got together to discuss our observations and make recommendations. We believe it to be one of our better educational opportunities. By the way, this was the first of **two** flat tires. I once knew a priest who said it was OK to cuss if you had two flat tires.

It is my opinion that the rice industry is blessed with the best county agents in the state. This is not to say others are not good, only that these are the best and I am grateful to work with them.