

Field Notes
August 9, 2006
Johnny Saichuk



The discussions about *Cercospora* continue. This very common disease, usually considered a minor disease has dominated phone calls for the past couple of weeks. Most of the time we see Narrow Brown Leaf Spot and its Net Blotch phase as a regular occurrence on rice late in the season on first crop and on second crop rice, but never to the extent and severity we have seen this year. Why this has happened is and will be addressed by scientists at the Rice Research Station.

Yesterday I met with Drs. Steve Linscombe, Don Groth and Chuck Rush to discuss this problem and formulate recommendations for ratoon crop production in fields affected by the problem. We also discussed the possible impact of regrowth on those needing the forage for crawfish production.

The affected fields resemble a field treated with sodium chlorate in that the flag leaf and the one just below it are completely dried out. Lower leaves have often been dropped by the plant before overall symptoms were obvious. Many growers have reported completely dry or very weak straw at harvest. They also have said they have noticed very little regrowth at harvest.

The most commonly asked questions have been, "Should I even try to make a second crop?" and "Will *Cercospora* affect the second crop?" Whether a second crop should be attempted in these affected fields depends upon a number of factors. The basic rules still apply; limited rutting, harvest before August 15th, historical success with second crop and so on. Because of the conditions this year other considerations must be taken into account. No matter what is done, there is never any assurance a good second crop will result because so much will depend on the weather between now and maturity of the ratoon crop.

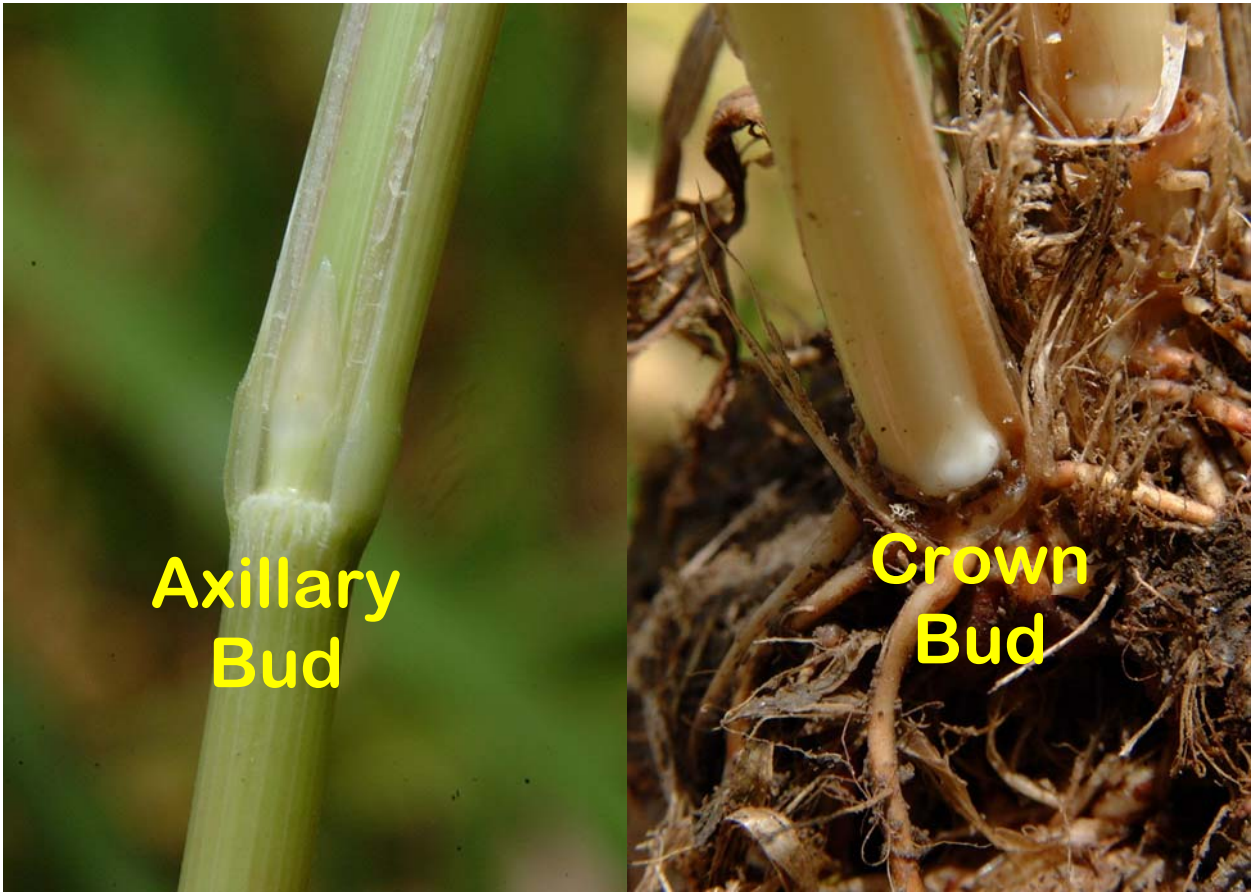
The consensus of our discussion group yesterday is the following: if there is no obvious regrowth and the field is very wet (either some standing water or completely saturated) just wait; if the field is dry apply a shallow flood and wait; if there is sufficient regrowth already present manage it as you would any second crop. Once regrowth is present apply nitrogen fertilizer and establish the flood. This is not the time to cut back on nitrogen since the disease is often associated with nitrogen deficiency.

In the two verification fields we have harvested no obvious regrowth has been observed. However, more careful examination has shown healthy crown buds and axillary buds. Axillary buds are behind the leaf sheath where the sheath joins the stem, not at the collar of the leaf. The photographs on the next page show these buds.

Look in areas where rice may have lodged earlier for signs of regrowth. Often areas that lodge will produce growth from the crown buds before the rest of the field. This could be an indicator of the possibilities of good regrowth in the rest of field too. Nothing is certain.



In the photograph above the lighter colored areas are those affected by the net blotch phase of Narrow Brown Leaf Spot caused by *Cercospora*.



In addition to *Cercospora* there are a whole host of diseases present in fields now because as the plants mature they lose their defense mechanisms and weaker pathogens begin to attack them. Among the most common of them are Sheath Rot caused by *Sarocladium oryzae*, Brown Spot caused by *Bipolaris oryzae* (we used to use the name for the imperfect stage of the fungus with which you are probably more familiar, *Helminthosporium oryzae* – don't get mad at me, call the pathologists) and Leaf Smut caused by *Entyloma oryzae*. Note all three of these use the same species name *oryzae* in reference to the genus of rice *Oryza*. I mention these for a couple of reasons. They are common out there right now and some confusion exists between separating Sheath Rot and the net blotch phase of Narrow Brown Leaf Spot based on visual symptoms. There is also confusion between Brown Spot and Narrow Brown Leaf Spot because of the common names even though they are much different visually. Following are photographs of some of these diseases.



It is quite obvious by the similarities in the photographs that separating them based on visual symptoms alone is difficult. I took these photographs with the assistance of Dr. Chuck Rush who tried to explain the differences to me. He indicated *Sarocladium* lesions are almost always restricted to the flag leaf sheath, are purplish brown and less diffuse than those of *Cercospora*.

As was mentioned in an earlier Field Notes, the strobilurins (Quadris and Gem) do not control *Cercospora*. Tilt or propiconazole will control it at two 6 ounce or one 10 ounce application. The lowest labeled rates of Quilt and Stratego contain only 4 ounces of propiconazole along with a strobilurin. These have not been evaluated specifically for control of *Cercospora*. It is likely that higher rates of these materials might have some benefit, but we cannot recommend anything specific until research has been conducted on them.

The photograph below and left is of Brown Spot (*Bipolaris oryzae*). The golden halo around the dark brown spot is a diagnostic feature of this disease. The photograph at right is of Leaf Smut (*Entyloma oryzae*). It should be easily identified by its distinctive linear black lesions on the leaves of affected plants.

It is hoped this discussion helps to explain the difficulty in determining with absolute certainty what is going on in the field right now. Scientists at the Rice Research are aware of and are investigating the problem. While it is too late to help this year, by next year it is hoped a better recommendation can be made.

