

LOUISIANA RICE NOTES

Drs. Dustin Harrell & Don Groth

May 19, 2017

No. 2017-05



Rice Crop Update

The rice crop in southwest Louisiana is moving along quickly this year. Some of the earliest rice was planted in mid-February. This rice is now in the mid- to late-boot stages of development. The rice in the first picture was planted on Valentine's Day. I predict that we will see some of the first rice begin to emerge from the boot sometime next week. This will potentially set us up to begin harvesting some

of this rice in early July this year, approximately 2 weeks earlier than normal!

The bulk of the rice in southwest Louisiana is just past green ring and near half-inch internode development. The mid-season N fertilizer has been applied on the majority of the crop; therefore, it is time for us to begin thinking about scouting for disease. *Cercospora*, also called narrow brown leaf spot, has been found at a high enough incidence on some rice in the area to warrant an application of a propiconazole fungicide to suppress the fungus development. I must also point out that not all of the brown/bronzing type leaf symptoms that we are currently seeing on rice is *Cercospora*. We have a lot of rice that was stressed by high water, wind and herbicides. These stresses have caused some rice to form splotchy bronzing-like symptoms on the older leaves. In some cases, this could be partly due to slight nutrient deficiencies which were accentuated by the adverse weather conditions. In general, I would expect that a lot of the bronzing-like symptoms we are seeing will be cured by a week or so of sunlight and good growing conditions. Dr. Groth has put together a good article on how to correctly identify *Cercospora* below. If you believe the symptoms to be nutrient related, a tissue sample can be analyzed to help correctly determine if that is the case. Research has

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shown that applications of phosphorus to rice at green ring or beyond are generally not economically beneficial. However, late season applications of potassium have shown to be beneficial when the nutrient is limiting.

I have also seen leaf blast and sheath blight in rice that I have scouted this week. The incidence of these diseases in the field were not severe enough to warrant a fungicide application. However, we are expecting a few days of rain and warm humid weather which could help develop the diseases. Dr. Groth has also put together a good article below on the best fungicide application timings for each of the major rice diseases.

I sent out a poll last week via the text message group to get a better feel about how much rice in Louisiana will be lost by the recent flooding. The results indicated that the flooding destroyed approximately 1% of the Louisiana rice crop.

This equates to about 4,000 acres. We have considerably more rice that survived the flooding but will have substantial yield losses associated with the event. We always have

Rice at the PD stage of development was flooded by 4 to 8 feet of dirty water. The following pictures depicts fields where the water receded 21, 16 and 8 days after flooding.



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questions about the survivability of rice when flooding occurs at the wrong time. There are many factors to consider when trying to answer this type of question, like the age of the rice, the clarity of the water (can sunlight penetrate the water?), as well as the water and air temperature. I visited a farm earlier this week near a bayou which overflowed onto several rice fields. The water from the backwater flooding was dark, and sat on the fields for a varying amount of time. The picture on page 2 depicts the extent of the damage as affected by the days of flooding for rice which was at approximately half-inch internode when the flooding occurred.

Identifying Cercospora

There has been some confusion about *Cercospora* found in the area and what we should do about it. Not all of the browning found on rice plants is *Cercospora*. Some additional information is needed:

The pathogen survives on rice debris, weed hosts and especially on overwintering rice. Symptoms occur on leaves, leaf sheaths, pedicels, and glumes. Leaf lesions are 2-10mm long and about 1mm wide (Figure 1). Symptoms on leaf sheaths appear as a net blotch, or spot in which cell walls are dark brown and intracellular areas are tan to yellow (Figure 2). Be aware several other diseases and

disorders can mimic *Cercospora* symptoms. Although rice plants are susceptible at all stages of growth, the plants are more susceptible from panicle emergence to maturity.

Narrow brown leaf spot severity varies from year to year and it is more severe after warm winters, in late planted rice, and in the second crop. Leaf spotting may become very severe on the more susceptible varieties and causes severe leaf necrosis. Premature ripening, yield reduction and reduced milling can occur if all the right conditions are present including a susceptible host, a warm and moist environment and a presence of the pathogen. Varieties that are moderately susceptible to resistant have little to no damage. Propiconazole containing fungicides (Tilt, Bumper, Quilt, Stratego, etc.) and Sercadis have the best activity against *Cercospora* when applied between PD and heading. In general, the later that rice is planted the earlier the fungicide should be applied. If you have enough disease early to treat, it is best to do it then before the disease expands, since fungicides do not have much curative activity. However applying a fungicide this early may necessitate a second application at boot or heading to control other diseases such as sheath blight, grain smuts, and blast.

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Plan on scouting your rice soon and make accurate identifications of diseases in your fields. Plan your fungicide applications based on the most serious disease in the field. In general the diseases with the most risk are blast, sheath blight, kernel smut and Cercospora, in that order.

Figure 1. Typical narrow brown leaf spot symptoms



Figure 2. Cercospora on sheath



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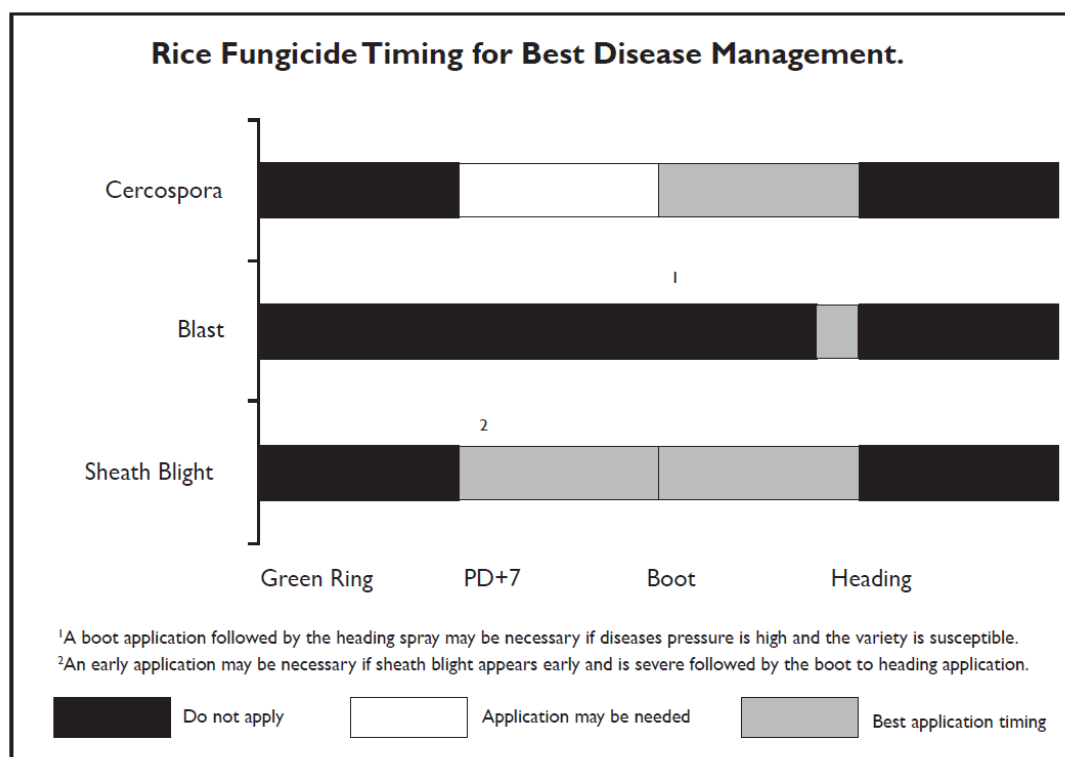
Fungicide Application Timing

Many factors affect fungicide activity including application timing, cultural practices, inoculum levels, weather, varietal resistance, spray volume, type of adjuvant added to the spray solution, and application method. Other conditions that limit fungicide activity include off-target drift, volatility, calibration errors, and weathering. Problems can develop from these factors that limit fungicide activity. A problem occurs when fungicides are applied, resulting in most of the material being deposited on the upper third of the canopy.

Redistribution by rain and dew is necessary to move the fungicide into the lower canopy where hopefully most of the disease is present.

Redistribution is necessary because, although most fungicides are systemic, they only move upward in the

plant with water movement within the xylem. The problem is there is a fine line between redistribution and weathering of fungicides. The most important point is to avoid rainfall just before and after fungicide applications, so the fungicide does not roll off the plant due to excessive moisture or wash off before the fungicide can dry or be absorbed by the plant. Most of the time rice fungicides are effective and benefit rice production if applied correctly. Below is a graph of correct fungicide timing for the most important disease of rice.



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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.

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 25 Vermilion Parish Field Day
- May 31 Southwest Louisiana Rice Tour, Fenton
- June 1 Evangeline Parish Field Tour, Mamou
- June 14 Acadia Parish/South Farm Field Day, Crowley
- June 28 LSU AgCenter H. Rouse Caffey Rice Research Station Field Day, Crowley
- July 12 Northeast Louisiana Rice Field Day, Oak Ridge and Rayville
- July 18 Northeast Region Rolling Crop Field Tour, Morehouse Parish

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



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LSU AgCenter H. Rouse
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2017 RICE CONSULTANT OF THE YEAR NOMINATION FORM

Deadline: May 31, 2017

There are **TWO** ways to nominate.
Use the online form below or
download/print/mail nomination.

Nominate an outstanding consultant or pest control adviser (PCA) for the inaugural 2017 Rice Consultant of the Year Award. Sponsored by Dow AgroSciences and *Rice Farming* magazine, the award recognizes the dedication, leadership, and innovation of this crucial segment of the U.S. rice industry.



The RCOY award recipient will receive:

- Four-page feature in *Rice Farming* magazine.
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- One night's hotel stay and round-trip travel to Memphis for the award recipient and nominator.

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