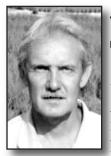
2010 Louisiana Rice Crop Shows Contrast



DR. STEVE LINSCOMBE

RAYNE, LA. The 2010 Louisiana rice crop is one of contrast – contrast in weather and, ultimately, contrast in yields. The seeding of rice in southwest Louisiana begins in early March, and this early rice encountered cool conditions. In fact, at the Rice Research Sta-

tion in Crowley, 27 days in March were cooler than the historical averages. These conditions slowed germination and seedling growth and development.

However, these conditions changed dramatically as we moved into April. For the remainder of the growing season, temperatures were well above average. These excessively high temperatures apparently had an overall negative effect on rice yields.

June is an important month for rice growth and development because most of the earlier planted rice is moving from primarily vegetative growth to reproductive growth, where the grains are formed. High temperatures during June can affect this growth and development, and excessively high nighttime temperatures can be detrimental.

Historically, the average minimum nighttime temperature during June at the Rice Research Station is about 72 degrees. This year the average was 75.6 degrees. While 3.6 degrees may not seem significant, it is. Higher than normal temperatures accelerate the process of respiration in the plant. Photosynthesis occurs when the plant is exposed to light during the day and ultimately leads to the production of carbohydrates that are stored in the plant. Respiration occurs both during the day and at night and converts these carbohydrates to energy to fuel metabolic processes in the plant.

The higher the nighttime temperature, the greater the rate of respiration, which burns more stored carbohydrates. These same carbohydrates are needed later to fill the developing grain. Therefore, the high respiration rate burns up more stored carbohydrates and leaves less available for grain fill. When these conditions occur, our rice yields are generally reduced, which is what happened this year.

Diseases are problematic every year, but this year we saw more bacterial panicle blight than we have seen in a number of years. While this disease is caused by bacteria, it is always more prevalent when we have the high nighttime temperatures experienced this growing season. This disease also caused yield reductions in many fields.

We are also seeing more weedy rice plants, which cannot be controlled by NewPath and Beyond in Clearfield-seeded fields. These plants are the result of earlier outcrosses between Clearfield rice and red rice or volunteers from a previous crop of a Clearfield hybrid.

Rice water weevil pressure was normal and stinkbugs were light in the earlier rice but extremely heavy as later rice headed. We also had more down rice to deal with this year than in the last few years. While a handful of producers had very good to excellent yields overall, most averaged several hundred pounds below what they had harvested in the past couple of years. This is coupled with the lowest rice prices we have seen in recent years.

All in all, this will not be a rice crop for the record books. $\hfill \Delta$

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