



Dr. Chuck Wilson, Dr. Rick Cartwright, and Dr. Bob Scott

**May 11, 2010**

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**INTRODUCTION** – This is the fourth issue of the Arkansas Rice Newsletter for the 2010 production season. If you know of someone who would like to be added to the e-mail list, please send an e-mail to: [cwilson@uaex.edu](mailto:cwilson@uaex.edu).

I am trying to learn how I can use some new communication technologies. I have set up a blog to distribute information in addition to the newsletter. If you are interested, you can visit the blog at <http://arkansasrice.blogspot.com>

**CROP CONDITION AND STATUS** – The weather this spring has allowed rice to be planted across most of the state at record pace. As of May 9, farmers had planted an estimated 95% of the rice acreage. This compares to 90% last week and only 66% this time last year. It is also well ahead of the 5-year average of 79% for this week. The USDA estimates that 82% of the rice acreage has emerged. This compares to 46% last year at this time and 57% for the 5-year average. Our planting progress is 2-3 weeks ahead of the 5-year average and a month ahead of last year. As of May 9, 16% of the crop is reported to be in excellent condition, 45% good, 35% fair, and 4% poor.

Average temperatures were near normal ranging from 2 degrees below normal at Gibert to 6 degrees above normal at Eudora for the week ending May 9. Low temperatures ranged from 39 degrees at Fayetteville to a high of 92 degrees at Stuttgart, Rohwer, and Eudora. Rainfall for the week ending May 9 ranged from a low of 0.02 inches at Eudora to a high of 2.1 inches at Morrilton. Overall, soil moisture supplies were 18% short, 67% adequate, and 15% surplus.

The water is still receding from the flooding that occurred last week. It is still unknown at this time how much of that rice will need to be replanted. Much of the rice is reaching the stage for flood establishment. Remember to wait until the soil dries to apply pre-flood nitrogen fertilizer and then apply a shallow flood as quickly as possible.



Photo courtesy of Eugene Terhune

Very early estimates suggest that CL 151 is the most widely planted variety so far (about 24% of the acreage). The next most widely planted varieties are Wells (15%), Rice Tec CL XL 745 (14%) and Jupiter (13%). These numbers are preliminary and may change as we get more information available.

### **MANAGING FOR STRAIGHTHEAD**

**STARTS EARLY** – It seems the flood has just been established and now it is time to drain and dry the field for straighthead control.

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# ARKANSAS RICE



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Straighthead is one of the oldest reported rice diseases in Arkansas, observed since the early 1900s when rice was first grown, and was especially a problem on newly cleared rice ground and lighter soil types. It has historically been associated with old cotton fields, where arsenical pesticides were once used, and arsenic has been shown to produce straighthead symptoms, however arsenic is apparently not the only cause of the problem.

Fields that favor straighthead are permanent. This means each time rice is planted, straighthead will develop at some level if the flood is not drained, and the soil is aerated at the appropriate time. Historically, it is unlikely to observe straighthead on clay soils.

Straighthead symptoms include darker green plants in the paddies, followed by blanked or blanked and distorted panicles (See photo above). Medium and short grain varieties tend to have the most kernel distortion symptoms while many modern long grain varieties mostly blank out, without much noticeable distortion. Glyphosate that drifts during midseason can result in heavily distorted or partially blanked panicles. Those panicles can be mistaken as straighthead. However, glyphosate injury usually affects the upper developing leaves, especially the flag leaf size, shape, and texture. Glyphosate injury can be observed in paddy rice and on levee rice. Straighthead does not noticeably affect anything except the panicle on rice and only occurs in flooded paddies.



**Glyphosate Drift – Note the stunted flag leaf**

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Straighthead is a serious disease with yield losses approaching 100% if a highly susceptible variety is planted on a severe straighthead soil, and the soil is not drained and dried prior to panicle initiation. Each year, we list the straighthead reactions of most varieties grown in Arkansas in the annual Rice ARPT report, available through the local County Extension office or on the Internet at <http://arkansasvarietytesting.org>.

If a susceptible variety is mistakenly planted on a straighthead field, the disease can be prevented by “draining and drying.” Typically, this has to be done after the field has been permanently flooded but completed *before internode elongation starts*. Once the internodes begin to elongate, it is time to re-flood. Delaying the flood and drying beyond internode elongation will not impact straighthead and will likely reduce grain yield. The best way to time draining and drying is by using the University of Arkansas DD50 Program, available through the County Extension Office or on the Internet at <http://dd50.uaex.edu/dd50Logon.asp>. This program will predict the best straighthead drain period for each field entered. If draining and drying is done improperly, you may not get the best straighthead control, or you may hurt rice yields by drying too long.

Some growers worry that draining and drying will increase the chance of neck blast developing later. While this may be true in some circumstances, it is not a certainty, and straighthead damage is much more certain on fields with straighthead history. In order to avoid this conundrum, plant varieties that are less susceptible in known straighthead fields. If you mess up and plant a blast susceptible type,

you must still drain and dry, then flood as deep as possible afterwards to minimize blast.

## UPCOMING EVENTS

Rice IPM/Consultants Meeting – Scott Matthews Shop – Weiner, AR. Friday, May 21, 2010 at 12 p. m. Contact: Rick Thompson (870- 578-4490)

Delta Classic Scholarship Golf Tournament – Helena Country Club – July 30, 2010. Contact: Dr. Robert Bacon (479-575-2354)

Rice Field Day – Rice Research and Extension Center – Stuttgart, AR – August 11, 2010. Contact: Dr. Chris Deren (870-673-2661)

Pine Tree Biofuels Field Day – Pine Tree Branch Experiment Station – Pine Tree, AR – August 5, 2009. Contact: Roger Eason (870-633-5767)

## Other Field Days

Progeny Rice and Soybean Field Day – Wynne, AR – July 22, 2010

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