



September 5, 2015

No. 2015-27

Crop Overview

Harvest weather may be just about perfect, but the results leave a lot to be desired.

There continue to be bright spots, but there seem to be just as many dim ones. The southern half of the state seems fairly set on an average yield likely to come in around 10-15% below previous years. There is still rice to be cut, so maybe later rice will be above expectations.

As for northern Arkansas, early reports are not great. The sample size is small, but a number of the fields harvested so far report similar yield issues to the southern half of the state. However, some areas are reporting good to very good yields. Overall at this time it seems as though the optimism written here over the past few weeks is not being rewarded.

According to DD50 enrollment, over 90% of fields have reached harvest moisture (20%). The weather for the next 10 days looks excellent for harvest and if the dew will lighten up many will make tremendous progress.

Odds & Ends

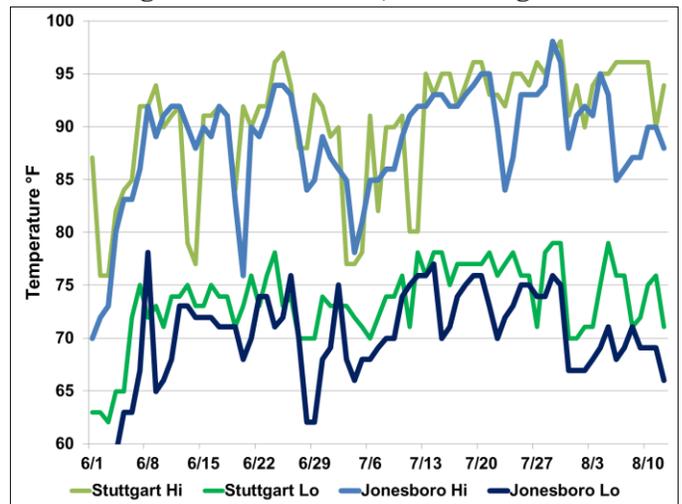
Harvest aids: A few have made some mistakes in the last couple of weeks with harvest aids. Let's repeat, DO NOT apply harvest aids when rice moisture is above 25% or below 18%. Above 25% you may stop some kernels from finishing out and below 18% you will cause moisture to fall out too fast and shattering will begin to occur.

Glyphosate & rice don't mix: On a somewhat related note – if applying harvest aids to fields adjacent to rice be very careful. Questions about glyphosate as a harvest aid on grain sorghum near rice – best bet is to consider rice only completely safe when it's in the combine.

Current Thoughts on Weather Effects

We've been talking about the weather a lot lately and its impact on the yields we're seeing. Have a look at **Figure 1** to see daytime highs and overnight lows through June and July.

Fig. 1. Daytime and nighttime temperatures for Stuttgart and Jonesboro, AR during 2015.



If your rice was planted late March or early April there's a good chance you hit panicle differentiation (joint movement) around mid-June depending on the cultivar planted. That's not an ideal weather pattern there.

If you planted later in April, you reached joint movement around the 4th of July when things went really haywire. I know it's easy to blame the weather, but in this case you can see the odd pattern that could have likely affected many acres during the time they were in the process of setting the number of potential grains per panicle.

Small panicles with virtually all grains filled suggest environmental stress or fertility issues. Panicles with a large number of blanks suggest environmental stress at late boot and flowering; but only a concern when associated with low yields (high yielding fields can have a large

Visit our website at <http://www.uaex.edu>



number of blanks when they made more grains than they can possibly fill).

These comments on the weather in no way explain all of the problem or everyone's problems, but it is something to work off of based on the information we have to date. Possible factors for why some fields were *really* affected and others alright or at least far less affected: (1) variability in development caused by early-season weather conditions; (2) element of chance for fields hitting poor midseason weather conditions; (3) poor stand establishment leading to low plant stands early; (4) delayed or inefficient N fertilization causing reduced tiller number; and (5) extreme heat during boot and flowering stages of growth.

Regardless of the speculation now – it will be some time before we have the ability to really understand the true cause and effect of the 2015 rice season.

Calculating Harvest Loss

A few questions lately about estimating harvest loss based on grain left in the field behind the combine. In the old handbook there was some information on this topic that we didn't carry forward to the new version (guess we should put it back).

All cultivars differ in seed weight, but a good general number averaged across our most common cultivars is 19,000 seed per pound. Based on that number, **Table 1** indicates the number of seed you need to count per square foot and the yield equivalent.

Additional Information

Arkansas Rice Updates are published periodically to provide timely information and recommendations for rice production in Arkansas. If you would like to be added to this email list, please send your request to jhardke@uaex.edu.

This information will also be posted to the Arkansas Row Crops blog (<http://www.arkansas-crops.com/>) where additional information from Extension specialists can be found.

More information on rice production, including access to all publications and reports, can be found at <http://www.uaex.edu/rice>.

Acknowledgements

We sincerely appreciate the support for this publication provided by the rice farmers of Arkansas and administered by the Arkansas Rice Research and Promotion Board.

The authors greatly appreciate the feedback and contributions of all growers, county agents, consultants, and rice industry stakeholders.

Table 1. Converting field loss counts into bushels per acre.

No. of rice kernels uniformly spread over one square foot	Average Field Loss bushels/acre
25	1.3
50	2.5
75	3.7
100	5.1
200	10.2