August 1, 2014  No. 2014-21

Crop Progress

“It’s like déjà vu all over again.” Yogi Berra could have just as well been describing the weather this season. It does look as though we haven’t a positive change on the horizon for the next week. We’re forecast to reach into the low 90s most of the next 10 days. About 90% of rice around the state should be at or near 50% heading at this time. Unfortunately, a lot of that rice is heading very unevenly.

Despite the setbacks, the earliest-planted rice will likely be ready to harvest in the next 10 days with some fields being drained. If conditions normalize (and it looks like they’ll improve for now) most rice should be ready for harvest around or before the end of August. Strange, considering it’s felt like October for the past two weeks.

With the heading delays and unevenness of heading when it does happen, a few complaints have kept popping up. In Picture 1 is a fielding heading unevenly – this makes timing fungicide applications difficult. In short, it’s better to be early than to be late. If this is a common theme in your area, apply fungicides (particularly for smuts) in time to protect the earliest heads and use higher rates (8-10 oz Tilt equivalent) to better protect later emerging panicles. In Picture 2 is a “caught” panicle. These are easy to find in most fields and the panicle will flip out as it continues to push out of the boot. I blame the cool weather for slowing down head emergence and making this more noticeable.

Rice stink bug numbers have begun to taper off somewhat as more rice begins to head. Keep after it scouting though, we’re still finding fields at threshold that need to be treated. Once a field reaches 50% heading, the threshold is 5 stink bugs per 10 sweeps; after two weeks the threshold goes up to 10 stink bugs per 10 sweeps.

Scout for stink bugs and scout for sheath blight. There are not thresholds for blast and the smuts though, so you must take a preventative approach to manage these diseases.

Table 1. Percent of rice acres set to reach harvest moisture during listed weeks of 2014 according to DD50 enrollment.

<table>
<thead>
<tr>
<th>Harvest Date</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 10-16</td>
<td>2%</td>
</tr>
<tr>
<td>Aug 17-23</td>
<td>18%</td>
</tr>
<tr>
<td>Aug 24-30</td>
<td>32%</td>
</tr>
<tr>
<td>Aug 31 – Sept 6</td>
<td>34%</td>
</tr>
<tr>
<td>Sept 7-13</td>
<td>10%</td>
</tr>
<tr>
<td>Sept 14-20</td>
<td>4%</td>
</tr>
<tr>
<td>Sept 21-27</td>
<td>1%</td>
</tr>
</tbody>
</table>

Picture 1. Uneven heading is a common sight in fields around the state making timing of fungicide applications difficult.
Arkansas Rice Update
Dr. Jarrod Hardke, Dr. Gus Lorenz, & Dr. Yeshi Wamishe

Out Standing in Your Field

Continued Disease Development
To date, leaf blast has been reported in Clay, Randolph, Lawrence, White, Prairie, Lonoke, Arkansas, Woodruff, Monroe, Lee, Greene, Jackson, and Desha Counties, mostly on Jupiter followed by CL151. Other varieties included are CL152, Roy J. Caffey, CL261, Jazzman-2, Mermentau, and Francis.

Blast pathogen attacks leaves, nodes, the collar, the neck and panicles of rice plants. The worst of all is neck blast (neck rot). When the neck rots, food transportation to the panicles discontinues and panicles blank causing near 100 percent grain yield loss under severe blast situations. This is a kind of disaster that should be avoided.

Picture 2. “Caught” panicle emerging – it will flip out as the head emerges from boot.

The major questions on blast this week:

1. How long do the blast fungicides protect if higher rates are used?
   Fungicides for blast protection are not systemic. Protecting panicles when the panicle tissues are soft is crucial. The length of time panicles need to be protected is short. As the panicle tissues mature, the damage will be less. However, the damage is done when tissues are delicate. Therefore, the fungicide application is to target the “short length of time when panicle tissues are soft”. In blast protection it does not matter how long the chemical stays on the leaves. What matters is protection of the panicle and its neck during the soft tissue period. To this end, coverage and timing to protect the panicle and neck are more important than the longevity of chemicals on the surface of leaves and sheath.

2. Flying two times for two applications for blast disease is costly, how much is the risk to blast with one application?
   Yes, flying two times to protect against only one disease is expensive. However, in fields with a history of blast, cultivated with susceptible varieties, and with early leaf blast detected, two fungicide applications are highly recommended if adequate protection is desired: the first from boot to 10% heading and the second at 50-75% heading. Remember necks should be in the boot during both applications.

   If situations are different, you may need to weigh out the risk. When variety susceptibility aligns perfectly with a
favorable environment, the chance to have blast disease is higher since the pathogen spores are already in the air in our area. If you choose one application, the application should be when at least 1/3 to 2/3 of the panicles are still down in the boot. However, expect a risk of 20-40% grain loss with one application in severe blast disease situations. That is still a large amount of risk – two applications are still recommended to achieve the greatest control.

3. Which fungicides are best to protect rice from blast and the smuts (kernel and false smuts) together?

Timing of application needs to be matched to target more than one disease. Boot split or later application to suppress kernel or false smut is too late. The 1st application timing for blast goes from boot to 10% heading. Based on this timing information, you may go with combination fungicides (strobe + triazole) to tackle blast and the smuts at boot. Make sure the fungicide you select has the adequate minimum rates of both chemicals. If not, you need to spike them as required.

4. Will the weather continue to favor rice blast disease?

Weather goes up and down. Still rainy, still cloudy, temperature gets high for a few days then drops. Weather still appears to favor blast disease. Remember weather that favors long dew periods favors blast.

**Other Issues**

Potassium deficiency (Picture 3) has started showing up in some locations. For comparison to sulfur deficiency symptoms, see Picture 4. Note the difference in leaf coloration associated with the two deficiencies – reddening or “firing” with potassium, hot yellow or “school bus yellow” with sulfur.

Finally, Picture 5 shows an intense blackbird infestation. This seems to be a recurring problem the last few years in some areas. There is currently no recommended option for effectively keeping blackbirds out of heading rice, but we’re working on it.

Picture 3. Potassium deficiency – note the spots and “firing” of leaf tips.
Arkansas Rice Update
Dr. Jarrod Hardke, Dr. Gus Lorenz, & Dr. Yeshi Wamishe

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 where additional information from Extension specialists can be found. Please visit the blog at http://www.arkansas-crops.com/

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.

Enroll fields in the DD50 Program here:

Problems or questions:
jhardke@uaex.edu / 501-772-1714.