Lonoke County Crop News
January 16, 2013

Corn Milo, & Wheat Meeting – Jan 29, 2013 – 9:00 a.m. Coy City Hall – Coy
PAT Meeting – January 29, 2013 – 12:00 noon - Coy City Hall – Coy AR
PAT Meeting – Feb 12, 2013 – 6:30 p.m. Cabot City Annex – Cabot
PAT Meeting – Mar 11, 2013 – 9:00 a.m. Lonoke Agricenter – Lonoke
PAT Meeting – Apr 11, 2013 – 9:00 a.m. Lonoke Agricenter – Lonoke

These meetings are open to all regardless of race, color, national origin, sex, age or disability, and if you need special assistance in order to attend any meeting, please let us know.

N*STR for Wheat
This is a new test that we are promoting on wheat. This test estimates the total nitrogen available to the wheat crop by testing all available nitrogen. Previously, we recommend nitrogen rates based on yield response to specific nitrogen rates on specific soil types. The new technology is superior to that approach and has the distinct advantage of maintaining yield with less nitrogen fertilization. That means you increase efficiency and increase profits.

The greatest potential for this technology exists where fields have been fertilized with poultry litter for multiple years and for fields that were planted to wheat behind corn. Other fields that have high producing potential such as Rilla silt loam, Keo silt loam, and some others qualify.

Take the N*STR sample as you would take a regular composit sample for the field. The sample depth must be 6 inches. Sample a field of 40 acres with about 15 sample sites and mix the soil and place in a soil box. On the box designate N*STR sample. The cost will be $10/sample.

A smart way of sampling would be to collect both the N*STR sample and a conventional sample together. N*STR would be for this spring N fertilization for wheat. The conventional sample would be for the following crop.

At this time we recommend one N*STR sample for 3 years on wheat.

Conventional Wheat N Fertilization Rates and Timing

Spring N fertilization is coming up soon. If you have a thin stand, four to five plants per square foot, then, increase total soil applied N by 10 units and try to fertilize earlier than normal. That means when the weather and soil moisture allows a time frame of the last week of January to the third week of February would be the time frame for the first N application.

Normally, when wheat has a good stand, we would like to see 120 units of N in a 2 way slit, with 70 N units on the first shot and 50 on the second shot. With thin stands place 80 units on the first shot and 50 on the second.
Also, on light soils, we have a problem with sulfur deficiency. Place the sulfur on the first shot to avoid this deficiency. So, using actual products the first shot would consist of 100# Ammonium Sulfate + 105# urea.

If you have thin stands then the first shot would look like this: 100# Ammonium Sulfate +130# Urea. All your phosphate should be on the ground now, but if not place it with the first shot of spring N. A convenient and cheaper way to apply some N is to use either DAP or MAP. If you use either of these phosphate fertilizers account for the N in either one and subtract from total N.

One last note: when using N fertilization, read the labels of the herbicides so you can avoid any interaction with the herbicide. You can find additional information in the MP-44.

**Wheat Stripe Rust is Here**

Brent Griffin, Extension Agent in Prairie County, found at least four hot spots of stripe rust on his family’s farm in northern Lonoke County on December 19, 2012. This beats the record set last January by about one month. The hot spots are now about 3 feet in diameter and are on an unknown variety that was planted on October 8. The finding was confirmed by Gene Milus, U of A wheat pathologist in Fayetteville, on January 9 after receiving samples collected by Jason Kelley, Extension Wheat and Feed Grains Agronomist. Given that all contemporary varieties are more or less susceptible to stripe rust during early growth stages, there likely are more hot spots developing throughout Arkansas and surrounding states.

The most common type of stripe rust resistance in contemporary varieties is classified as race specific, adult-plant resistance. This means that plants up to the jointing stage are susceptible and become more resistant as they mature and that the stripe rust fungus can evolve new races to overcome the resistance. The number of different resistance genes in contemporary varieties is unknown, but the stripe rust fungus has been evolving to overcome several of them. Even if a particular variety was resistant last year, there is no guarantee that it will be resistant this year. Furthermore, even if a variety turns out to be resistant, it will still be susceptible during the next two months. New races arise through mutations, and the probability of any particular mutation increases as the population size (number of spores) of the fungus increases. Therefore, a fungicide application is likely to be cost effective if hot spots are found in a field or if one has a field of the same variety that is known to have hot spots in a nearby field, and controlling stripe rust early will reduce the probability for new races.

There is still plenty of time to make an early fungicide application. Tank-mixing a fungicide with the herbicide used to control broadleaf weeds will save the cost of a separate application. Applying this tank mix during February or early March would be an optimal time to control both weeds and stripe rust. Research during 2012 showed that Tilt, Folicur, or Headline fungicides quickly inhibited the ability of spores to infect plants even though new spores were produced for several days after the fungicide application. Other fungicides registered on wheat likely would have similar effects. Generic formulations of Tilt and Folicur are inexpensive. This early application should control stripe rust long enough to determine if adult-plant resistance will be effective for the rest of the season or if another application at boot stage will be needed.
**N*Str for Rice**

N*Str has the potential to reduce or maximize nitrogen fertilizer in these crops. That means more profit per field. We offered this type of analysis for rice on silt loam soils only last year. New for this year are recommendations for clay soils in rice.

Be sure to take advantage of this new service provided for rice. It definitely has the potential to reduce inputs on nitrogen fertilizers this upcoming season.

**Rice Samples**

<table>
<thead>
<tr>
<th>Soil Type</th>
<th>Depth</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silt loam</td>
<td>18&quot; deep</td>
<td>all samples 6&quot; deep for</td>
</tr>
<tr>
<td>Clay</td>
<td>12&quot; deep</td>
<td>Silt loams</td>
</tr>
<tr>
<td>Cost</td>
<td>$10/sample = 1 box</td>
<td>Cost: $10/sample</td>
</tr>
<tr>
<td></td>
<td>10 samples per field</td>
<td>Collect like normal soil samples</td>
</tr>
</tbody>
</table>

**Wheat Samples**

**Rice Variety Update**

Attached is the Rice Variety Update for this year. This publication will give you the latest information on rice varieties, yield potential, disease ratings, and other data.

If you have any questions or concerns, please come by or call us at 501-676-3124.

**Mailing List Renewal Card**

If you wish to remain on our mailing list please fill out the enclosed card and return it to the Lonoke County Extension Office. Please be sure to include your email address on the card.