June 22, 2015

To: Those Involved in Row Crop Production

**Integrated Pest Management**

**Rice Midseason Nitrogen Management** – Most of the rice in the county has had preflood nitrogen applied and is under permanent flood. The next decision to be made in regards to nitrogen management will be how much and when to apply the midseason application. For hybrids the answer is easy. The current recommendation is to apply 30 pounds of nitrogen per acre when the rice is in the boot stage rather than at internode elongation. For inbred varieties it is a little more complicated. No matter what stage the rice is in, it takes three weeks for the plants to take up all of the preflood nitrogen so we recommend applying the midseason N no earlier than three weeks after the pre flood was applied. There are always exceptions to this of course. If for some reason the preflood N was lost and nitrogen deficiency symptoms are evident, go ahead and apply more. Generally, midseason N may be applied in a single application between internode elongation (green ring) and ½ inch internode elongation.

In some cases, midseason N may not be needed at all. It has been determined that the preflood nitrogen sets the yield. Midseason nitrogen may or may not increase yield depending on how well the preflood nitrogen was utilized and the amount of native soil nitrogen. Technology continues to develop to aid in decision making with regards to nitrogen management. The nitrogen soil test and tools like GreenSeeker are currently being used and tested.

Applying too much nitrogen promotes the development of diseases that can set the crop back and cost more than you gain. Sheath blight is the number one concern with excessive nitrogen. When there is more nitrogen than is needed for maximum yield, sheath blight goes wild. Kernel smut and blast are also heavily influenced by excess nitrogen.

Refer to the DD50 program at [http://dd50.uaex.edu/](http://dd50.uaex.edu/) for proper timing of the midseason nitrogen application.

**N-ST*R: Nitrogen-Soil Test for Rice** – N-ST*R is a soil-based N test that quantifies the amount of N that will become available to the rice crop during the growing season. The purpose is to provide field-specific N rates that will insure proper N rates are being applied on a field-by-field basis to achieve optimum rice yields. The recommendation report provided by the test will give you a single preflood application rate or a 2-way split application rate applying both a preflood and a midseason application. Currently all of the Rice Research Verification fields (RRVP) in the state are utilizing the N-ST*R test results to determine nitrogen needs. Last year on the RRVP field in Clay County, a single preflood application of 80 pounds of N per acre was utilized. The field yield was 204 bu/acre. This year, the field is in the same geographic location and the
recommendation was 90 pounds of N per acre. A single preflood rate of 90 pounds of N (200 lbs of urea) was applied preflood and we do not plan to make a midseason N application. I have sampled fields in Clay County in different areas and soil types just to see what the recommendations would be. Below is a summary of the results of the testing:

Field 1 is located West of Corning and South of Hwy 67. The soil texture Silt Loam. Variety is CL271. Total N rate as a single preflood is 90 lbs/acre.

Field 2 is located near Palatka on Hwy 328. The soil texture is Silt Loam (sandy). Variety is CLXL745. Total N rate as a single preflood is 145 lbs/acre or 135 followed by 30 at boot.

Field 3 is located just across the Missouri line West of Hwy 67. The soil texture is Silt Loam (sandy). Variety is CLXL745. Total N rate as a single preflood is 140 lbs/acre or 130 followed by 30 at boot.

Field 4 is located close to Black river NE of Coring. The soil texture is Silt Loam (clayey). Variety is CL151. Total N rate as a single preflood is 115 lbs/acre. In this particular field, we applied 90 lbs on half of the field and 120 lbs on the other half. We plan to follow with a midseason application of 45 lbs/acre. The field will be evaluated for yield, disease pressure and lodging.

Field 5 is located South of Hwy 90 and East of Hwy 135 near the Knobel Y. The soil texture is Silt Loam. Variety is XL 753. Total N rate as a single preflood is 115 lbs/acre or 105 followed by 30 at boot.

As you can see there is a wide range of rates based on the specific field. You may want to consider sampling some of your fields and fine tuning your nitrogen rates.

Rice Blast Disease - Rice blast is being found in fields south of I-40 and especially in Louisiana and Texas. Leaf blast was found this week in an early planted field of Jupiter in Greene County. Conditions are favorable for the development of the disease. Most of the reports have been in Jupiter. The varieties Jupiter, LaKast, Mermentau, Roy J and CL151 are all susceptible to the disease. Be scouting for the disease. A fungicide treatment may be necessary depending on the environmental and field conditions. If blast is found please report it to me so I can collect samples for analysis. I will also be scouting fields in the county looking for the disease.

Sugarcane Aphid Update - Sugarcane aphids have been confirmed in grain sorghum fields in the SE part of the state and in Mississippi. They have also been found on Johnsongrass in the central part of the state. We have checked and will continue to check Johnsongrass and grain sorghum in the area and report findings. A good way to keep up with the movement is to subscribe to our blog at Arkansas-crops.com. Populations can develop very rapidly and the aphids can quickly go from barely detectable to treatment levels. Insecticide options for sugarcane aphid include Transform
WG at 0.75-1.5 oz/acre (we recommend using 1 oz in most situations), and Sivanto at 4-7 oz/acre. “Preventative” applications are simply not an option for sugarcane aphid.

**Sorghum Midge** - The sorghum midge is potentially the most destructive pest of grain sorghum in Arkansas. The sorghum midge adult is a tiny, fragile looking orange fly. The female deposits 50 to 250 tiny, yellowishwhite eggs in spikelets of flowering heads during her short lifetime of 24 to 48 hours. A pinkishorange maggot hatches from the egg and feeds on the developing seed. Larval feeding causes “blaster” heads resulting in undeveloped seeds. The entire life cycle is completed in 15 to 20 days. Sorghum midge only infests flowering grain sorghum, thus scouting procedures for midge should begin when flowering begins and continue at two to three day intervals until flowering is completed. Check a minimum of 100 heads throughout the field. Adult midges may be seen crawling on or flying about flowering grain heads. However, detection is facilitated by quickly slipping a clear plastic bag over the head. This allows the number of adults per head to be more easily counted. We recommend that sorghum be scouted for midge in the early morning before the wind rises because the small flies are difficult to locate and check accurately under windy conditions.

Treat when 25 to 30 percent of the heads are flowering and you find an average of one midge per head. DO NOT apply insecticides as a blanket treatment without scouting as this will kill beneficial insects and open the door for aphids. Blanket treatments have not proven to be economical since presence of sorghum midge depends on a lot of factors and may or may not be a problem from year to year. For more information on grain sorghum insect control refer to the publication FSA 2066.

**Soybean Stink Bugs** – Stink bugs are being reported in high numbers in early planted soybeans. Damage is greatest when stink bugs feed on the seed in developing pods. Stink bugs are often found along field borders, particularly along tree lines. Threshold levels are one per row foot after blooming and pod formation begins. Be scouting early soybeans for this pest.

**Kudzu Bug A New Invader** – Kudzu bugs were confirmed in the state last year. Be on the lookout for this pest and report any findings. We will also be scouting for this insect this season. For more information refer to FSA 7084

For more information, visit our web site at www.uaex.edu/clay or call 857-6875. Find us on facebook.com/uaex.claycorning

Sincerely,

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