Hello friends. In an effort to manage with a limited support staff and tighter working budget, we plan to email you the Crop Update Newsletter this year and stop mailing hard copies. If you do not email and would like a hard copy of the newsletter, please call our office to let Rose know. For those of you who are not on our email list and want to be emailed the newsletter, please fire one of us (Allen or Dave - last page) an email to be added to the email list.

April Optimum Planting Window!
The optimum time to seed rice in NE Arkansas is from April 10 to May 10. Dr. Jarrod Hardke, U of A Extension Rice Specialist, notes that one positive for delayed planting from our recent cold, wet weather, should be quicker, more uniform rice emergence. Soils will warm up quickly as April temperatures climb.

DD50 - Track Crop Development, Pests, Chemical Cutoff Dates
The DD50 report is a one page summary of what to expect on your crop throughout the season. Growth stages, pesticide cut off dates, pest scouting windows, and fertilizer timing are just a few areas listed on the report. Please list the total number of acres you plan to manage with each report generated for your farm. Call the Extension office to get reports for your fields. Better yet, enroll online at http://dd50.uaex.edu/

Herbicide Resistance Management
Barnyardgrass (BYG) is our major rice weed. According to Dr. Bob Scott, U of A Extension Weed Scientist, we need to rotate herbicide mode of actions (MOA) available for BYG control, to promote herbicide resistance management. Screening surveys in 2013 & 2014 indicate several fields in Greene County have propanil, quinclorac (Facet), and/or Newpath (imazethpyr) resistant BYG. Adding to the concern, Clincher resistance was found on one field. In addition, in a few fields in Arkansas, Command resistance has also been confirmed.

Many use Command at planting as their main weapon for grass weed control. A couple of delayed PRE options to consider are Bolero and/or Prowl mixed with propanil or Facet, if needed, for emerged grass. They could be tank mixed with Newpath for Clearfield rice. Clincher and Ricestar fall into the other main MOA for POST grass control, with limited BYG resistance found. Regiment and Grasp also provide BYG control as long as ALS cross-resistance is not present. The take home message - use multiple MOAs to preserve your short list of weed control weapons. Call the Extension office if you suspect herbicide resistance, so we can collect seed samples. Thanks to those participating in the screening the last couple of years.

Switching gears, Sharpen is a group 14 herbicide (MOA), the same as AIM and Valor. Dr. Scott notes that when used PRE on rice, Sharpen may fit as a good burndown partner for control of marestail, morningglory, pigweed, and other small seeded broadleaf weeds. It can also provide residual control of pigweed if activated by a rain or flush. When used for POST applications after rice reaches the safe 2 leaf stage, Sharpen has good contact activity on the sesbanias, and several aquatic weeds. While a MSO plus AMS is required for burndown applications, a COC is recommended POST to avoid crop injury. For more details, check BASF’s supplemental labels, available at the State Plant Board Web site, http://170.94.200.136/prodreg/

Rice Information - Smart Device & Computer Updates
Timely information is available to those using smart phones, tablets, and laptops. Following are the links/contacts to sign up for/view/download electronic rice updates/guides:

Arkansas Rice Update (weekly) – email jhardke@uaex.edu
Greene County Extension Text/email updates – email Allen or Dave (contact info back of this newsletter)
**RICE CONTINUED**

**Nutrient Needs**

To grow good rice, producers need to soil sample (4 inch depth) every 2-3 years to access nutrient availability. Many soil test reports that come through the Extension office, call for phosphorus (P), potassium (K), and zinc (Zn) fertilizer. Regarding K, if soil test levels fall under 130 ppm (parts per million), potash is needed.

Considering P and Zn, the trigger to apply fertilizer is determined by both soil nutrient and pH levels. For P, fertilizer is needed if soil test levels fall under 25 ppm. In addition, for soils with a pH over 6.5, P fertilizer will be recommended when the soil test P level drops below 35 ppm. For these higher pH soils, phosphorus stays tied up longer than it does on more acid soils, even in flooded conditions. Keep in mind that research shows applying P fertilizer when soil test P levels are high can actually reduce rice yields in some situations, so do not make automatic applications.

The critical soil test level to apply Zn fertilizer is 4 ppm for light textured soils and 1.6 ppm for clays. Once again, pH levels above 6.0 will increase the need for Zn fertilizer with a 10 pound granular recommendation given to help build soil test Zn levels. For the more acid soils (pH under 6.0), a liquid Zn (chelate or ZnSO4) application or a Zn seed treatment become options. On a final note, since high pH soils can tie up P and Zn, on fields requiring lime, the lime application is generally made the fall before the crop that rotates with rice, unless the pH is 5.0 or lower.

Thinking about nitrogen (N), don’t forget about the U of A’s Nstar program. It is the Extension Service’s newest way to determine N fertilizer needs for a rice crop. Dr. Trent Roberts, Assistant Professor for soil fertility, initiated the research for, and heads up, the Nstar program. He advises that this new procedure determines a soil’s organic N level, which stays more stable over time, compared to inorganic N (ammonium and nitrate). Nstar accuracy & success depend upon proper soil sampling, a consistent crop rotation, and proper irrigation/water management. So far, some fields using the program have called for more N fertilizer to achieve optimum yields while others have called for less N. In 2014, Greene County demo fields (5 farms) using a higher N rate recommended by the Nstar method, averaged 13 extra bushels per acre over check fields receiving the standard soil test N rate. Call the Extension office for more details about Nstar, or if you are willing to volunteer for a demonstration.*

**Wheat**

**Foliar Fungicide Decisions**

According to Dr. Jason Kelley, Extension Feed Grains Specialist, producers should carefully evaluate the use of foliar fungicides for wheat disease control. Economic returns for fungicide application are greatest when a susceptible variety is planted, weather conditions favor disease development, and the fungicide is properly timed. The overall goal is to protect the flag and flag-1 leaves through beginning kernel fill.

Historically, the greatest returns for fungicide use have been seen from controlling stripe rust, followed by Septoria leaf blotch, and then Stagonospora leaf and glume blotch. Powdery mildew usually does not develop on the upper leaves, while leaf rust usually arrives late in the season. The economic return for controlling powdery mildew or leaf rust will not likely be as great as for controlling stripe rust, or the blotches.

Fungicide efficacy ratings were comparable for most products sold in Arkansas, for most of our target diseases. Application timing and rate may be more important than which product is applied. Target fungicide application from flag leaf emergence (Feekes growth stage 8) up to early flowering (growth stage 10.5.1). Research shows disease which develops after flowering should not affect kernel fill, and subsequent yield.

Scout your fields on a weekly basis through April to access disease development. Disease thresholds are available as guides on the need and optimal timing of fungicide application. They are listed in the MP 154 (2015 Arkansas Plant Disease Control Products Guide). ***
CORN

Herbicide Chemistries To Consider
Several brands of herbicide are available for corn weed control. Many contain atrazine which has been the long time standard for broadleaf weed control. It is a group 5 MOA that works great to broaden the mix of chemistries used on the farm when thinking about herbicide resistance management. Most producers also include a group 15 herbicide (alachlor, metolachlor, Zidua, etc.) in their program to provide residual grass control. Another good choice for your herbicide program mix to help with broadleaf weeds is one of the group 27 products. Mesotrione (Calissto) has been around for several years, and like atrazine, adds diversity to the chemistries being used on the farm. Tembotrione (Laudis) and isoxaflutole (Corvus) are a couple of other group 27 compounds sold alone or in package mixes. Sharpen or Verdict (group 14 MOA) may work good in the mix providing burndown of weeds like marestail and morningglory while giving residual control for pigweed. Several Group 2 compounds (ALS inhibitors) are available to tank mix or buy as a package mix. Keep in mind that pigweeds in some fields may show resistance to them. On a final note, glyphosate still makes an inexpensive grass control option for larger emerged grass. Make sure to mix it up by using more and different chemistries for sustainability.

GRAIN SORGHUM

Acreage Expected to Expand
With a favorable price outlook, many producers are talking about planting grain sorghum for the first time in years. It is a great rotation crop for nematode management, plus it allows the use of more herbicide families to fight glyphosate resistant pigweed.

According to Dr. Jason Kelley, U of A Extension Feed Grains Specialist, although grain sorghum looks like corn, it is not corn. Sorghum has a much smaller seed with less energy for establishment. It is also native (Africa) to a warmer environment making it more sensitive to cool weather compared to maize.

Sorghum is also more prone to herbicide injury when under stress. Injury is possible if Flexstar, Fierce, or Newpath was used on the previous crop. With this in mind, do everything you can to make for a favorable environment for sorghum its first month of development.

Soil temperature should be 65 degrees F or above for sorghum to germinate and come up to a good stand. April 10 to May 10 is the prime planting window for this region.

Grain sorghum is a conventional crop, so glyphosate is not an option for grass weed control. It is imperative to start with a clean field at planting and to use a residual grass herbicide like Dual Magnum or Outlook. Concep-treated seed is required. As with corn, Sharpen or Verdict may fit as good burndown options. Many producers come back with atrazine for broadleaf weed control once they see they have a good stand. On sandy soils it can only be used at a lower rate with crop oil.

Several reference publications are available from the U of A on grain sorghum production. Go to the following website to download/view them on your computer or smart device.

http://www.uaex.edu/farm-ranch/crops-commercial-horticulture/grain-sorghum/

Check out his site for UA hybrid trail results:
http://arkansasvarietytesting.com/
**SOYBEANS**

**FTT Cloud—More Traits!**
According to Dr. Dharmendra Saraswat, University of Arkansas associate professor and Extension Engineer, Flag The Technology (FTT) will be available again this year as FTT Cloud (FTTC). Go to [fttcloud.uaex.edu](http://fttcloud.uaex.edu) online to set up an account as either a producer, commercial applicator, or consultant. Accounts can be set up with limits on who can view field data entered, to protect account holder privacy.

The primary goal for adopting FTTC is to keep crops safe from herbicide injury which sometimes occurs from off target drift or miss application.

With FTTC last year, seven herbicide traits and/or trait combinations were identified with flags. Primary flag colors included: RED – Conventional crop (contains no herbicide tolerance trait), GREEN – Liberty Link crop (tolerates glufosinate), WHITE – Roundup Ready (tolerates glyphosate), and YELLOW - Clearfield & STS crops (tolerates imazethapyr).

If a field was planted to a crop with combined traits, the flag used also had a colored margin to identify the second trait (Green or Yellow margins). This year FTTC has been updated to include an additional four new technologies- Enlist (Teal flag with white stripes—24-D & FOP tolerance), Enlist/LibertyLink (Teal flag with Green margins) , Xtend (Black & White checkered flags—dicamba & glyphosate tolerance) and XtendFlex (Black & White Checkered flag with Green margins).

We are looking for tech teams (producers-commercial applicators-consultants) who will work together to try the online FTTC. Please call us at the Extension office if you would like to participate or have a team in mind.

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**Polypipe Hole Selection Program Focus**

This season we would like to help producers set up a field or two using a computerized polypipe hole selection program (Phaucet or Pipe Planner). Our goal is to spotlight a few fields using these programs, to show that water, energy, time, and money can be saved by fine tuning polypipe irrigation. The Greene County NRCS and Conservation District will be supporting this effort. Please give us a call if you have a field in mind that could water out better.

See you soon,

Allen Davis  
County Extension Agent  
Staff Chair  
ardavis@uaex.edu  
870-236-5039

Dave Freeze  
County Extension Agent  
Agriculture  
dfreeze@uaex.edu  
870-476-9891

Greene County Cooperative Extension Service  
201 W. Court Street, Room 205  
Paragould, AR 72450