Greene County Field Day July 9th

A field day will be held on Tuesday, July 9th, to see some of the U of A, Division of Agriculture, row crop Extension projects being conducted in Greene County.

Dr. Bob Scott, U of A Extension Weed Scientist, will be present to talk about pigweed control efforts in soybeans. Other topics include the NStar program in rice, soybean and corn variety/hybrid updates, and miscanthus production. Current pest situations and verification updates will also be provided by U of A cotton, corn, and soybean coordinators.***

**Preflood Nitrogen Sets Yield Potential**

According to Dr. Trent Roberts, U of A Assistant Professor for soil fertility, research findings show an 85% fertilizer use efficiency when the urea is flown onto dry soil and the field is flooded within three days. When the floodwater moves the urea into the soil, it will convert and stay in the ammonium form, which is safe from being lost.

Roberts notes there is over a decade of research in Arkansas which shows yield potential for a crop strongly depends upon the efficient use and effective management of preflood nitrogen. He stresses that dry soil is essential to allow floodwater to move urea below the soil surface. On a wet soil, urea is not moved below the soil surface and can convert to nitrate, which is subject to being lost via denitrification.

After fertilizing and flooding a field, it is very important to maintain a good flood. The rice will take up the majority of the preflood nitrogen applied within the first three weeks after a field is flooded. If the flood is lost on parts of the field, oxygen will be absorbed into the soil in these places ultimately resulting in some nitrogen being lost.

Many growers use a split application (preflood and again at beginning joint movement) for fertilizing rice. Conventional varieties should receive their midseason nitrogen sometime between greenring (beginning joint movement) and ½ internode elongation whereas hybrids should receive their mid-season fertilizer at the boot stage. By the green-ring stage rice has developed a dense mat of roots just at and below the soil surface that quickly absorb the mid-season nitrogen applied into the floodwater. ***

**Sheath Blight Thresholds**

As rice reaches the panicle initiation stage (greenring), you need to begin scouting for sheath blight (SB). According to Dr. Yeshi Wamishe, Arkansas Extension Plant Pathologist, this disease is responsible for many dollars of lost income for producers every year. Some fields lose yield and profit potential from not receiving a fungicide application when SB threshold levels are reached. Many other fields will lose profit potential when growers make automatic fungicide applications when SB levels are well below treatment level.

CL181AR is a semidwarf variety rated very susceptible to sheath blight. Fungicide treatment is recommended for it, and other varieties rated susceptible or very susceptible, when 35% positive scouting stops are recorded for a field, and there is a favorable forecast for continued disease development. For the taller, moderately susceptible varieties, like Taggart, 50% positive stops is used to trigger a fungicide application. A positive scouting stop is when you find sheath blight lesions present.

Most of the RiceTec hybrids being grown are rated moderately susceptible to SB and are less likely to need a fungicide application when SB levels are well below treatment level.

Sheath blight is more likely to be a problem on fields with a history of the disease, when high nitrogen rates are used, for thick stands of rice, and during cloudy, damp conditions. Wamishe advises that the sheath blight organism can grow up the plant and across the canopy one inch every 24 hours under the right conditions. The message here is to scout fields twice a week when conditions are right for sheath blight development. The producer’s goal is to protect the plant’s top three leaves which are responsible for a large part of kernel fill.

Quadris, GEM, Stratego, and Quilt will generally provide from 2-3 weeks of protection from sheath blight. Use a high spray volume (at least 5gpa) to help with canopy penetration and foliage coverage for the best results.***
Conventional Soybean Varieties May Bring Premium Prices

Lately many farmers have been relying on broadleaf herbicides of the past to control GR pigweed, making conventional varieties a more viable option. There may soon be opportunity to receive substantial premiums for Non-GMO (conventional) soybeans! If enough Arkansas farmers can supply conventional soybeans, at least one company is considering locating here to receive non-GMO soybeans.

At this point, the U of A, Division of AG is trying to determine how many local farmers are growing conventional soybeans. Please call or email us with the following information if you are growing conventional soybeans this year: acres, varieties, on farm storage, contact name, phone number, email, and address. ***

UA Row Crop Blog & Soybean Podcasts Provide Timely Information

For timely updates on the latest U of A, Division of AG research and Extension recommendations, consider using e-communication. Receive pest alerts, variety results, and meeting notices in seconds instead of days!

Throughout the growing season, timely topics are posted on the U of A row crop blog website located at: http://www.arkansas-crops.com Save this as one of your favorite sites, or even better, get signed up for e-notices of new updates. You may also want to use your smart phone or device to receive timely U of A soybean podcasts. Sign up for them at this website: http://www.aragriculture.org/crops/soybeans/podcasts

We are also sending timely text-updates and pictures about current pest and crop issues to our local AG clientele. Call us with your name, cell number, and cell provider (ATT or Verizon) to be added to this list.***

Race For 100

The “Race for 100” (bushels/acre) soybean yield contest and “Go for the Green” yield challenge are on again this year. It would be nice if a farmer from Greene County could break the 100 bushel yield barrier and win the $50,000 prize! The “Go for the Green” awards cover 7 Arkansas regions and non-GMO (conventional) soybeans. Cash awards up to $10,000 will be given for the three highest yielding entries from each region.

These contests are sponsored by the Arkansas Soybean Association (ASA) in association with the U of A, Division of AG. In addition, they are funded by Arkansas Soybean Promotion Board check off dollars. To participate, you need to pre-register your contest field by August 1st. For more details contact the ASA at 501-666-1418 or go to the website at swsoy@aristotle.net. ***

Corn May Benefit From Pre-Tassel Nitrogen Fertilizer

Some producers are applying nitrogen (N) fertilizer in a 3-way split for corn, with the final shot (typically 100 lb urea) flown on 1-2 weeks before the tassel emerges. The goal is not to use more fertilizer, but to save some of the fertilizer that would have been used early in the season for this application.

Yield increases as large as 25 bu/A have been observed in farmer’s fields and in small research plots, however this yield bump has not been consistent. Large amounts of residual nitrate-N, yield potential, soil variability, weather, and even hybrid selection can all influence yield response. In a wet season such as we have seen in 2013, the triple split should result in good N use efficiency for those using this approach.***
Pigweed control size? DAE? Leaf number? Inches in Width or height?

We are all learning you can no longer melt down a two foot tall pigweed like we did when Roundup Ready crops first came on the market back in the 90s. Many of our younger farmers and AG advisors may not have been around back when we grew conventional soybeans and had to get POST emergence herbicides out when weeds were 10-14 days after emergence (DAE).

What does 10-14 DAE mean? Tiny pigweeds. This is essential for the PPO products like Flexstar, Blazer, and Cobra, to be able to work effectively. Many weed scientists will tell you to control pigweeds while they are in the red stage (small). Once a pigweed takes off growing, it is in fast forward motion and switches quickly from the red to green stage. The Flexstar label lists 6 true leaves as the maximum size (under good conditions) to control a Palmer pigweed with the 1.6 pint rate allowed for this region. Make sure you check leaf number.

Some farmers are growing Liberty Link soybeans for the first time this year. You can control big pigweeds with this system, right? You can really burn them back and the field looks great for a few days, then the biggest survivors come back aggressive as ever.

You do have a little more wiggle room with Liberty, about 1-2 inches compared to the PPOs. The label shows 29 ounces of Liberty 280 SL to control up to a 4 inch pigweed. This is under good conditions (soil moisture, spray coverage). A very important note. Size in inches on the Liberty label refers to weed height or width. Small Palmer pigweed will often measure twice the size in width compared to height. For example, a pigweed that is 4 inches in width will only be 2 inches tall. The message here is to measure pigweed width to determine product rate and expected control.

Your goal with the Liberty system should be to make your first application of Liberty when pigweeds are about 7-10 DAE (1-3 inches in diameter). This is often 2-4 weeks after planting if you used a PRE herbicide as recommended by the U of A, and it was activated by rain or irrigation to provide residual control. A second application of Liberty may be needed after your first shot (10-14 later) if another flush of pigweed comes up before your soybeans close canopy, or if you get regrowth (very possible if you had pigweed bigger than 4 inches).

In closing, think about herbicide chemistry. Glyphosate readily translocates in the plant. This is why it worked so well before resistance. It went to the growing points and root system. On the other hand, herbicides like Flexstar (fomesafen), and Liberty (glufosinate) generally work as contact type products and have very little movement in the plant. This is why thorough spray coverage (15 gpa minimum spray volume by ground and 5 gpa with aerial applications) is a must along with, yes, tiny weeds (under 2-3 inches).

If pigweeds are too big for the PPOs or Liberty to completely burn back the seedling, you will be left with a stub that has new shoots ready to form. Don’t forget the root was not even touched by the herbicide and is 100% on go! Good luck in this year’s pigweed battle!***

Foliar Fungicide Considerations on Corn

Automatic fungicide applications in corn will result in economic losses for many growers. Researchers advise that most corn fields in Arkansas never reach a level of disease development to warrant the use of a fungicide.

Under extraordinary circumstances, some foliar diseases such as southern rust, northern leaf blight, and gray leaf spot, occasionally infect corn early enough to get a yield response when a foliar fungicide is used. If you or your crop advisor determine a fungicide is needed, try to time your application around brown silk. This timing should allow protection of green leaf tissue long enough to make it through kernel fill in most cases.

Be smart and make sure to check your fields for presence of disease before automatically flying on a fungicide.***
Upcoming meetings & field days.

July 9 - Greene County Extension Row Crop Field Day
August 2 - UA Rice Expo, Rice Research & Extension Center, Stuttgart, AR
August 15 - UA Pine Tree Station Field Day, Pine Tree, AR
TBA - Judd Hill Field Day, Truman, AR

Warmest regards,

Allen Davis
County Extension Agent-
Staff Chair

Dave Freeze
County Extension Agent-
Agriculture

Make sure to hold fruit in cotton by controlling plant bugs.