Lonoke County Crop News
April 10, 2013

Planting Season is Here
All planting has started, but has been delayed by a wet spring.

Pesticide Applicator Training
May 9, 8:30 A.M., Lonoke Ag Center
This meeting is open to all regardless of race, color, sex, national origin, age or disability

New Rice Varieties
While much of growing rice is the same, regardless of the variety, certain production decisions are based on variety. New varieties can create uneasiness because of the lack of familiarity with seeding rates, diseases, N rates, etc. Reference guides and rice variety information can be downloaded from our website. http://www.aragriculture.org/crops/rice/publications.htm

Rice and Soybean Updates
Enclosed is the 2013 Soybean Updates and 2013 Rice Quick Facts. These publications provide much needed information in selecting varieties. Also, a computer program Soyvar is available online at our website: www.uaex.edu which may aid in selecting the best soybean varieties for your production this year. In addition, another computer program Riceseed will aid you in selecting the proper seeding rate for rice under the conditions your fields have to offer. If we at the University of Arkansas Cooperative Extension Service can assist you at any time, please feel free to come by or call us at 501-676-3124.

Rice Soil Fertility:
If you have not sampled your fields lately, I would encourage you to collect soil samples to ensure that you are applying adequate amounts of fertilizer in the fields that need it and not over fertilizing other fields. For optimum results, samples should be collected so that no sample represents more than 20 acres. Also, consider collecting a sample representing no more than 5 acres near the water inlet. Potassium (potash), in particular, should be examined very carefully. Deficiency of potassium can rob yields and you may never know it. Plants that are moderately low in potassium may experience what is known as “Hidden Hunger”. Although the plants may never show any symptoms of deficiency, the yields may be reduced by as much as 20%. Be cautious about cutting fertilizer to save a penny and end up costing a dollar. If fields have high soil pH values (> 6.5) and low soil test phosphorus levels, be cautious about eliminating phosphorus fertilizer. In the short run, phosphorus may be skipped in soils with low soil pH values (< 6.0) but skimping on fertilizer is not wise in the long run.
**Zinc**—The Extension service will use a critical value of 5 lbs per acre zinc soil test level for zinc fertility recommendations. If the soil test zinc level on sandy or silt loam soils is less than 5 lbs of zinc per acre and soil pH is 6.0 or above, then pre-plant granular zinc fertilizer at a rate of 10 pounds of actual zinc per acre should be used. If zinc soil test levels are between 5 to 7 lbs per acre and soil pH is 6.0 or above, then any a zinc fertilizer (pre-plant zinc at 10 lbs per acre; or liquid zinc EDTA foliar at 1 lb of zinc per acre applied 5 to 7 days before flooding; or zinc seed treatment at 0.25 to 0.5 lb of zinc) should be applied.

**DD50 Enrollment**

A DD50 enrollment card is enclosed. When your rice emerges, be sure to record the date for each field. For DD50 purposes, a field is considered to be emerged when 8 to 10 tiny spikelets per square foot are just visible. For water seeded rice, emergence is when shoots (not roots) reach ¾ inch. Having the correct emergence date for each field is real important for DD50 to work correctly.

Fill in the field name, variety, emergence date, and number of acres for each rice field on your DD50 card. Then put a stamp on the card and mail it. Our address is already on the card. You can call us (676-3124) instead of sending the card if you prefer. If you want more cards, just give us a call. We'll send all you need.

Mail enrollment cards just as soon as emergence dates are established. We will send management tip forms back to you just as soon as we receive your card(s).

DD50 is a great management tool. It lists expected growth stages of rice for herbicide application dates, flooding, fertilizer timing, and draining. The program uses 30 year temperature averages to predict dates for timing over 25 management practices. It is really helpful with any variety, and is especially helpful for new varieties.

**Armyworms:**

At this time we do not have any reported armyworms, but be on the lookout for armyworms moving into rice from adjoining wheat fields and fields being burned down with herbicide in preparation for planting. In the latter case, these are fields that had considerable winter grass, *Poa annua*, in them.

![Armyworms feeding on rice](image)

Armyworms feeding on rice

After armyworms are discovered in a field, it’s a common misconception to think that because no worms are seen during scouting that the armyworms are gone. This is NOT necessarily the case. During the day, armyworms go into hiding. If you will flip some clods, you may be surprised at how many armyworms can hide under a 50 cent piece-sized clod of dirt, so don’t be caught thinking the armyworms are gone and the damage is done. Remember, armyworms are active at night and unless it’s a cloudy day, will stay hidden until evening.

In most cases, the rice will grow back with little or no damage, but in severe cases, if the rice is eaten below the growing point it will not survive. If treatment is warranted try to wait as late in the day as possible to spray. Pyrethroids are photo labile, meaning they break down in sunlight, so spraying late in the day will help maintain efficacy for when the armyworms come out at night. Pyrethroids are the product of choice so consult the MP-144 for selection and rates or contact your local county agent.
The most important thing is to get out there and check your rice and corn fields, particularly the ones with wheat fields or fields burned down with herbicide near by, for armyworms moving in on you.

**Soybean Planting Dates:**
Soybeans germinate at 50 degrees soil temperatures, however, in order to establish a stand, soil temps need to be higher. Usually that corresponds in Lonoke County to 60 degrees F. This usually occurs in the last week of March or the first week of April. So when planting early beans look at the days to maturity in the Soybean Update. Plant only indeterminate beans early or yield reductions may occur. Only plant the amount of very early beans you can comfortably harvest prior to rice harvest, or designate separate harvest equipment for rice and soybeans for efficient harvest.

**Soybean Planting Rates:**
Planting rates vary with the soybean group you are planting. At this point, plant only Group III and Group IV. On these varietal groups producers should shoot for about 130,000 plants per acre. To achieve this plant about 9.4 seed per row ft. on 30 inch rows. If you are drilling beans using a 7 inch drill drill just a little over 2 seed per drill ft.( 2.2). That means plant 160-165 thousand seed/A. considering 80% germination.

**Corn Fertilization:**
Fertilization sets up a field for maximum economic yield. If you are shooting for yields approaching and exceeding 200 bu./A., then, you need to add sulfur in the form of sulfate (especially on lighter soils in Lonoke County) and probably Zinc in the form of zinc sulfate or Zinc chelate, on soils with pH’s above 6.0 and/or recently limed. Refer to your soil sample recommendations to guide you.

Corn reaching 200 bu./A., requires approximately 255 lbs. of actual effective nitrogen to achieve this yield goal.

Actual effective nitrogen is the amount of nitrogen applied minus the amount of nitrogen loss due to denitrification. You can use a product like Agrotain to prevent denitrification of urea. When the soil air interface is about 70 degrees F, and soil moisture is present denitrification occurs, so be careful.

Place one third to one half of the required nitrogen preplant. Then, follow it with a layby application before the corn is in the 8 leaf stage. Note that all nitrogen should be in place before the 10 leaf stage. However, if you are applying a pre-tassel shot of N, then, subtract 46 lbs. of N from these applications and place it in the pre-tassel stage. All phosphate and potash should be applied with one of these two applications. Have them applied before the 10 leaf stage. Most of the time it is more convenient to have them applied pre-plant.

**Herbicide Resistance Management:**
The objective of a good herbicide resistance management strategy is the attack the weed in each year of a rotation. So, no matter if you are trying to control glyphosate resistant Palmer's pigweed, Command resistant barnyard grass, or another resistant species; have good weed control in each crop. That means in corn use a pre containing atrazine and another grass herbicide component, i.e., Lexar, Attrazine + Dual, Attrazine + Prowl.

Protect yourself from drift by planting Roundup Ready corn. If some species such as morningglories start to escape choose another type of broadleaf chemistry to attack it. Refer to the 2011 MP-44 for rates and products to take care of that situation, but remember the restrictions on the herbicides or herbicide combinations are real. Damage or reduced control may result if you violate them.

Use several strategies to achieve control of glyphosate resistant species such as Palmers Pigweed. First, use a crop rotation strategy if possible. Resistant species will flourish in a soybean monoculture. Second, use pre-emergent herbicides that are effective in controlling Palmer's Amaranth(metachlor, Dual Magnum,
and Valor are just a few). Third, use a preemergent herbicide no matter if you produce RoundupReady, Liberty Link, or Conventional beans. Check the MP-44 for specific herbicides and rates as part of your strategy. Fourth, do not plant into last years pigweed disaster, rotate the field to rice if possible. Use glyphosate with wisdom. If it doesn’t control the pigweed, consider using Flexstar or the generic version before the pigweed reaches 2 inches. Finally, using GPS if possible map the fields on your farm to locate resistant species for reference in future years.

**Many Producers Are Asking If They Will Get A Stand?**
In the digging that I have done in the past few days evaluating condition of corn seedlings, the seed that I have seen appears to still be healthy and is still slowly emerging and should emerge with a little more time. However some fields are likely not to be as uniform emerging as we would like to see. In looking at corn today, some seedlings were spiking and others still had not emerged, but should be emerging in the coming days. Under ideal conditions, we would like for all seedlings to emerge on the same day so that all plants are uniform. But as slow as emergence is now, a couple days difference in emergence may not make as much difference in yield as is perceived.

I have gotten a couple reports of seedlings that had rotted, but I have not seen this first hand yet. All of the corn that I have looked at appeared healthy at this point. Fields that have had water standing at the bottom of the field or fields that have poor drainage are more likely to have reduced stands.

**What Plant Population is Considered Adequate?**
Typically for irrigated fields we are aiming for a plant population of 32-34K/acre. Some stands of early planted corn this year may not be “optimum” after the stress that they have been through. Replant decisions depend on a lot of variables including the replant policy for the hybrid in question, what date you can get in the field to replant, what kind of stand you have, and how uniform the stand is? In plant population studies on irrigated corn in past years, plant populations of less than 26K are generally low enough that replanting may be needed provided you are in the planting window where adequate yields can be achieved. A 75% replant policy (typical, but varies by company and hybrid) by seed companies makes replanting decisions a little easier provided seed is available to replant. Plant populations of 28K/acre or more and are somewhat uniform should be adequate to maximize yields for most hybrids. IF REPLANTING, ALWAYS DESTROY THE FIRST STAND PRIOR TO ANY REPLANTING OPERATIONS.

**How Late Can We Plant and Maintain Yield?**
A lot of calls are coming in about whether it is too late to plant corn. My answer – we are just now getting into the “optimum” planting window for most of Arkansas. After the 2007 Easter freeze much of our corn was replanted after April 15th and resulted in record yields. In reviewing 5-years of planting date studies that were conducted from 2008-2012 at Rohwer, Marianna, and Keiser evaluating only Bt hybrids, estimated relative yield potentials are listed below:

| Estimated Relative Yield Potential Based on 2008-2012 Planting Date Trials in Arkansas (Bt hybrids only). |
|-------------------------------------------------|-------------------------------------------------|-------------------------------------------------|
| Planting Date | Keiser %Relative Yield | Marianna %Relative Yield | Rohwer %Relative Yield |
| April 1-20 | 100% | 100% | 100% |
| April 20-30 | 100% | 100% | 95% |
| May 1-10 | 98% | 95% | 90% |

Some might disagree, but I feel that how the crop is managed throughout the season is far more important than actual planting date within a normal planting date (March 15-April 30) for Bt hybrids. There has also been talk about needing to grow fuller season hybrids when we plant later. Based on results from our planting date studies there is no need to change hybrid maturity when dealing with 110-120 day hybrids, which is what we are typically planting. If you have a good hybrid ready to plant, don’t change based on perception that you need a fuller season hybrid.
Removing Existing Stands

If your corn stand is not adequate for profitable yields, then, you need to replant. You have several options to destroy your stand, but Gramozone alone is not one of them. Consider using Gramone plus 1 pt./A Atrazine if your replant is to corn. Similarly, if the variety of corn is not a Liberty Link variety, then you may use Ignite@ 29 oz./A. If you use Select Max @ 6 oz./A you will achieve acceptable results, but you have a 7 day plant back restriction.

Refer to the chart below. If you are planting back to corn use atrazine added to Gramoxone. If you plant back to soybeans use Sencor plus Gramoxone. If you are going to plant cotton behind corn, use Direx plus Gramoxone. Single applications of Ignite alone will only achieve 90% control.