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# Yell Co. Row Crop News

Winter 2013-14

## **Corn Production Meeting**

The River Valley Corn Production Meeting will be held **December 13th 2013**, starting at 8:30AM at the Wildlife Federation Building in Dardanelle.

### Program Features:

- 8:30—9:00AM Kevin Lawson— Area agronomist for Corn and Grain Sorghum
- 9:00—9:30AM Glen Studebaker— Extension Entomologist, insect control
- 9:30—10:00AM Jason Kelly— Extension Agronomist, variety selection
- 10:00—10:15AM Break
- 10:15—10:45AM Tom Barber— Extension Weed Scientist, weed control
- 10:45—11:00AM Steve Nolan— Wayne Farms Feed Mill

## **Soybean Production Meeting**

The River Valley Soybean Production Meeting will be held **January 30th, 2014**, starting at 8:30AM at the Conway County Fairgrounds in Morrilton.

### Program Features:

- 8:30—9:00AM Jeremy Ross—Soybean Agronomist, variety selection, fertility, Planting Dates
- 9:00—9:30AM Gus Lorenz—Extension Entomologist, insect control
- 9:30—10:00AM Travis Faske—Extension Plant Pathologist, Soybean Rust
- 10:00—10:30AM Bob Scott—Extension Weed Scientist, weed control
- 10:30—11:00AM Scot Stiles—Economist

# Rice Production Meeting

The River Valley Rice Production Meeting will be held February 3rd, 2014 at 8:00AM at the Conway County Co-op in Morrilton.

## Program Features:

- 8:00—8:30AM Gus Lorenz— Rice insect control
- 8:30—9:00AM Bob Scott— Weed Control
- 9:00—9:30AM Jerrod Hardke—Variety selection and agronomy
- 9:30—10:00AM Trent Roberts—fertility management

# Wheat Weed Control

Bob Scott— Extension Weed Scientist

Wheat weed control is getting more expensive. The occurrence of ALS-resistant ryegrass in Arkansas wheat fields has created problems for some wheat producers. ALS herbicides for wheat include: Finesse, Finesse G&B, Osprey and PowerFlex. These are all good ryegrass herbicides unless you have resistance. Since most of the ryegrass in the state is already resistant to Hoelon herbicide, this only leaves a few options, the best of which is Axial XL. This product will kill most ryegrass in Arkansas, however, in our research a few of the samples tested, about 22 of 300, were resistant to Axial XL. Axial XL has no residual and can only be applied once per year. If you put it out in the fall, you do a good job preventing early ryegrass competition and set a high yield potential for your wheat in terms of ryegrass competition. However, there is a chance you may get more ryegrass and need a second shot in the spring. If it's resistant to Hoelon and the ALS herbicides, you have no options left. If you wait and put Axial XL out in the spring, with nothing in the fall you get ryegrass competition with your wheat all winter. Also, Axial has no broad-leaf activity.

The solution is to go to more of a program approach. Axiom herbicide applied either alone or with Prowl to 2- to 3-leaf wheat in the early fall followed by Axial XL applied as needed in the spring, is the most effective herbicide program that we have evaluated in our research for Hoelon + ALS resistant ryegrass fields.

If you have both ALS and Hoelon resistant ryegrass you should consider laying the field out if possible and controlling ryegrass either mechanically with with glyphosate for one year and break the ryegrass cycle.

# Fall Nitrogen Recommendations for Winter Wheat

BY TRENTON ROBERTS, RESEARCH ASSISTANT PROFESSOR, CROP, SOIL & ENVIRONMENTAL SCIENCES

Fall-seeded wheat generally does not require N fertilizer for establishment. Fall-applied N or preplant N can aid in the establishment of wheat under specific planting conditions and crop rotations, but should be managed on a case-by-case basis. Previous research has suggested the need for fall-applied N to help compensate for the large amount of crop residues produced by corn and grain sorghum, but recent data indicates that this added N may not be as beneficial as once thought and can potentially promote disease and lodging pressures later in the growing season. Incorporation of a large amount of crop residue from a summer grain crop may lead to immobilization of residual soil N. For crops other than flood-irrigated rice, fall-applied N has shown little or no benefit on wheat yield when late-winter-applied N is properly managed. Preplant or fall-applied N can increase biomass and aesthetics of wheat following summer grain crops, but has little influence on final wheat yields under well-established, properly-managed production practices. There is usually adequate inorganic N available in the soil for wheat following well-fertilized corn and grain sorghum crops. The University of Arkansas Division of Agriculture recommends fall-applied N only when winter wheat follows flood-irrigated rice in the crop rotation (Photo 1). Information on the need for fall-applied N following furrow-irrigated (no flooded) rice is not available, but is probably similar (no major benefit) to wheat following corn or grain sorghum. Wheat growth following flood-irrigated rice is usually poor for several reasons. First, following flood removal previously flooded soils tend to have low amounts (< 10 ppm) of inorganic N present. The large amount of rice straw and roots (even following burning) that is produced by rice may also immobilize soil inorganic-N for an extended period. Finally, the anaerobic conditions created by flooding limit P availability too and inhibit vigorous wheat growth in the absence of proper fertilization and straw management. The combined effect of the low N and P availability is visually evident when the paddy area (poor growth) in the field is compared to the area where the rice levees (vigorous growth) had been located. Thus, it is recommended that 40 to 50 lb N per acre be applied in the fall when wheat immediately follows rice in the rotation sequence. Other considerations for preplant or fall-applied N based on planting date and grazing for grain are listed below.

## Preplant N considerations

- 1) Late-planted wheat should consider 30 lb N per acre preplant.
  - a) Dates for late-planted wheat are October 15 North of Interstate 40 and November 1 South of Interstate 40.
- 2) Wheat for grazing and grain should consider 60 lb N per acre preplant
- 3) Wheat following flood-irrigated rice in the rotation should receive 40 to 50 lb N per acre preplant or shortly after planting or crop emergence.

The University of Arkansas Division of Agriculture Soil Fertility Team is currently revisiting and researching the recommendation for fall-applied N on late planted wheat. Fall N is essential for tiller development and stand establishment prior to winter dormancy and can impact wheat yields. Many states have fall N recommendations for late-planted wheat and they vary greatly from state to state. Residual soil N in the form of nitrate has been used as an indicator for wheat response to fall-applied N. Research from other states has indicated that wheat planted on soil with nitrate levels < 10 ppm generally have a positive yield response to fall-applied N. Further research is necessary under Arkansas growing conditions to determine more specific guidelines for fall-applied N to late-planted wheat.



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All meetings and activities announced in this newsletter are open to all eligible persons without regard to race, color, national origin, religion, gender, age, disability, marital or veteran status, or any other legally protected status. Persons with disabilities who require alternative means for communication of program information (large print, audiotapes, etc.) should notify the County Extension office as soon as possible prior to the activity. Please call 479-495-2216 or 479-229-4441, if you have any questions.

Sincerely,

Jack Clark

County Extension Agent, Agriculture