Veterinary Feed Directive is in Effect

As of January 1, 2017 the Veterinary Feed Directive (VFD) governing all feed-grade antibiotics which are considered medically important is in effect. Over the past several years, there has been a growing concern regarding bacterial resistance to antibiotics. There is no science-based researched which supports a link between antibiotic-use in livestock with antibiotic resistant bacterial infections in humans. Despite this fact, the VFD will increase veterinary direction of therapeutic uses of medically important antibiotics. Examples of drugs considered critically or highly important to humans include Excede, Draxxin, Lincomycin, Penicillin and the Tetracyclines.

Antibiotics approved for use under the VFD will be for “prevention”, “treatment”, and/or “control” of specific bacterial diseases.

“Prevention”- animals are not exhibiting clinical signs of disease but where the disease is likely to occur if the drug is not administered

“Treatment of Disease”- animals are exhibiting disease signs

“Control of Disease”- decrease the spread of the disease when a percentage of the animals in the group have exhibited disease signs and the clinically sick are being individually treated

Following are some key points:

- Producers need to have a veterinarian-client-patient relationship (VCPR) established
- The prescribing veterinarian must practice medicine in the same state as the producer’s operation
- All labels must include dosage, duration, and the condition being treated. There are no “blanket scripts”
- Names, addresses and telephone numbers must be included for both the client and the veterinarian
- VFD’s must show the date of issuance and expiration, species and production class of the animal, number of animals to be fed, withdrawal times, cautionary statements, number of refills and the veterinarian’s written or electronic signature
Veterinary Feed Directive is in Effect

- VFD’s have a maximum six-month limit. Once expired, a new one must be issued
- Veterinarians, feed distributors and producers must keep the original VFD for two years
- Feed distributors will not sell to a producer without a valid VFD
- Producers cannot mix feed for another producer outside their farm. To do this, a new prescription must be made
- Only antibiotics used in livestock feed and minerals which are considered medically important to humans will be affected. No other drugs such as parasite control, insect control, or reproduction control feed additives will be affected
- One VFD can be written to cover the same health condition in cattle owned or managed by the same operation if the cattle are in multiple locations, including across county lines

Antibiotics are sometimes a necessary part of raising food animals. Without them, animal welfare may be compromised and food safety may be put at risk. By regulating animal medicine more closely, the government can assure the public that farmers use antibiotics responsibly and do not pose a risk to human health.

For more information go to http://www.fda.gov/AnimalVeterinary/DevelopmentApprovalProcess/ucm071807.htm.

Heather Conrow, Livestock Specialist, University of Missouri Extension, Fayette, MO

Xtend Herbicide Technology Meeting

February 27, 2017
1:00 p.m. to 4:00 p.m.
MU Fisher Delta Research Center in Portageville, MO

Preparing for the Xtend Trait in 2017: Lessons learned and where we go from here
How to Make a Profit in 2017?

Is there any way to decrease input cost? Can I change my operation to make it more economical, like switching to furrow irrigated rice (FIR)? It’s a big deal if we can remove all or most levees from rice fields and maintain yields. New technology offers changes and the never ending need for continued research. These are questions producers are asking themselves and us.

Let’s take a look at “furrow irrigate rice” or rice grown on beds with irrigation down the middles like other row crops. When I get the question should I switch to FIR? My answer is a typical university one “it depends.” I’m accused of being on both sides, which is true, because it depends on your situation and management skills. It depends on “why and if” on your farm you want or need to make adjustments. If the problem is water, or soil, or topography, or crop rotation, or economics, all are valid reasons for making changes but, they don’t carry the same weight. Saving money by pumping less water is probably the hardest to justify. If lack of water from a weak well can’t hold a flood then you probably will not solve it with FIR. However, if it’s because of sandy soils then FIR may be exactly the solution. If you have a sloping field with lots of levees, FIR often works well. Crop rotation is another very good reason to look at all of the “depends and ifs” of FIR especially, heavy clay soils that wick well. If you have what I call a very good rice soil, (clay base with silt on top and a good well) you will be hard pressed to equal it with FIR. I have not seen any research where FIR increases yields over flooded under good conditions. The goal for most Missouri growers using FIR is to grow rice on problem fields and not lose money. If you can stand slightly lower yields and offset it with lower input cost, FIR should be considered and tried, but buyer beware.

University of Missouri researchers have studied FIR since 1988. MU G4361 publication points out many additional factors that occur and must be considered when dealing with removing super saturation and a 2 inch flood from a rice field. Changes occur between anaerobic and aerobic conditions. Always remember rice doesn’t grow, develop and yield well with water stress for many reasons that have not been addressed here or in most publications I’ve read lately. My mentor, Dr. Bobby Huey UAR 1970 said, “Boys, God meant for rice to grow in water.”

All of this will be covered and discussed by researchers and three farmers with years of FIR experience, at our MO Rice Production Meeting Wednesday February 15, at the Fisher Delta Center Lee Farm on highway T east of Portageville, Missouri.

Conclusions quoted from MU G4361 in 1993. “Rice can be produced in southeast Missouri using furrow irrigation as the water delivery system. However, furrow irrigation is not intended to replace flood water management, but to serve as an alternative in environmental situations that prohibit flooded soil conditions. Principal situations where furrow irrigation may be appropriate include: expanding rice acreages into nontraditional rice soils for rotation; weed control (especially red rice); and disease control, or protection of federal base acreages, on soils incapable of maintaining a permanent flood and in areas where water is limited, or irrigation pumping costs are excessive.” As with any new management system, rice growers intending to furrow irrigate should do so on small acreages for 1 to 3 years until they are confident that it fits into their farming operation.

Sam Atwell, Agronomy Specialist, University of Missouri Extension, New Madrid, MO

<table>
<thead>
<tr>
<th>Advantages for Furrow Irrigated Row Bedded Rice. Producers want to:</th>
<th>Disadvantages:</th>
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<tbody>
<tr>
<td>Rotate crops without tearing down levees, rebedding and reworking ground every year.</td>
<td>Yield and grain quality harder to achieve.</td>
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<tr>
<td>Have fields prepared in the fall for any crop next spring.</td>
<td>Water management uniformity more difficult.</td>
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<td>Eliminate levees to gain more land area and easier to harvest.</td>
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<td>Grow rice on irregular pitch fields.</td>
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<td>Establish permanent beds on heavy clay soils and zero grade for soybeans.</td>
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<td>Easier to use ground equipment longer into season. (less aerial apps)</td>
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How to Make a Profit in 2017?

Advantages for Furrow Irrigated Row Bedded Rice. Producers want to:
- Rotate crops without tearing down levees, rebedding and reworking
  the ground every year.
- Have fields prepared in the fall for any crop next spring.
- Eliminate levees to gain more land area and easier to harvest.
- Have flexibility to choose a crop to plant right before planting.
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- Grow rice on irregular pitch fields.
- Grow rice on sandy soils.
- Establish permanent beds on heavy clay soils and zero grade for soybeans.
- Easier to use ground equipment longer into season. (less aerial apps)

Disadvantages:
- Yield and grain quality harder to achieve.
- Water management uniformity more difficult.
- Fertilizer management uniformity more difficult.
- Blast probability greater.
- Weed control more difficult.
- Potential for more pesticide applications.
- Purchase and handle poly pipe.
In addition to fescue foot, toxic tall fescue reduces livestock weight gains and lowers reproductive performance. Come learn about novel endophyte tall fescue and say “Goodbye and Good Riddance” to profit-robbing toxic tall fescue.

- **Fescue Toxicosis:** Symptoms and Cause
- **Economics**
- **Establishment and First Year Management**
- **Seed and Endophyte Testing**
- **Transition from Toxic to Non-Toxic Fescue**
- **Company Products**
- **Incentives**
- **Producer Panel**

**Advanced registration due by Tuesday, February 28, 2017:**

- $60.00 individual or $110 couple
- **Late/Door Registration:** $75 individual or $125 couple

**Includes:** Meal, Refreshments & Proceedings

**Enrollment limited**

Name_______________________________________________________________________________
Address______________________________________________________________________________
City/Zip______________________________________________________________________________
Telephone________________________________________________ e-mail________________________________

**Send to:** Lawrence Co. Extension Center, Courthouse, P.O. Box 388, Mt. Vernon, MO  65712

**Make Checks Payable To:** Alliance for Grassland Renewal

- For more information: Eldon Cole; ColeE@missouri.edu or (417) 466-3102
- [http://grasslandrenewal.org/](http://grasslandrenewal.org/)

**Alliance Partners and Collaborators**

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<tr>
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<th>Barenbrug</th>
<th>DLF Int’l Seeds</th>
<th>Dow AgroSciences</th>
<th>Forage &amp; Grassland Foundation, Inc.</th>
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<tr>
<td>Kansas State University</td>
<td>MFGC/GLCI</td>
<td>MU CAFNR</td>
<td>MU Extension</td>
<td>Noble Foundation</td>
<td>KY Forage and Grassland Council</td>
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<td>Mountain View Seeds</td>
<td>Pennington</td>
<td>USDA-NRCS</td>
<td>Forage Producers</td>
<td>Livestock Producers</td>
<td>University of Kentucky</td>
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The window for frost seeding legumes is typically January - February. Late planting will reduce overall success of establishment since it is the freezing and thawing action of the soil that moves seed into the soil/seed zone. In order for a frost seeding to be successful, broadcast seed must come into contact with soil. Thick vegetation will decrease the potential for good soil-to-seed contact.

White (Ladino) clover is the most suited companion legume for pastures. Annual lespedeza should be considered in the mix and germination generally occurs after risk of late frost has passed. Red clover is more suited for hay production since it less tolerant to grazing than white. Alfalfa is not recommended as a frost seed legume. Seeding rates for ladino clover, red clover and annual lespedeza are 2 lbs/A, 10 lbs/A, and 25 lbs/A of pure live seed, respectively. It is important to have nutrient and pH at levels suitable to maintain legumes, a soil test should be considered. Also, consider inoculating clover seed to insure good nodulation especially in fields where legumes have not been in the mix for some time.

For more information on frost seeding legumes into existing pasture review MU Guides Dairy Grazing: Pasture Establishment, Renovating Grass Sods with Legumes and Seeding Rates, Dates, and Depths for Common Missouri Forages. Anthony Ohmes, Agronomy Specialist, University of Missouri Extension, Jackson, MO.
Early February is a time to evaluate wheat to make some management decisions. Wheat maturity is driven primarily by a specific varieties response to temperature and photoperiod and not specific dates on the calendar. Therefore, it is important to evaluate a crop by growth stage to help make nutrient, pest management decisions and to determine when to stop grazing. For grazing, to protect yield, pull cattle off just prior to Feekes 6 (jointing) when the base of the stem is hollow. A good guide for following wheat development is Purdue University’s guide: Managing Wheat by Growth Stage.

Initial evaluation of fields should include overall condition of stand and number of tillers present. When tiller numbers reach approximately 80/foot of row or more, consider holding off on nitrogen applications until pre-jointing green-up (Feekes 4-5). This timing provides available nitrogen just before the time of greatest need, jointing (Feekes 6). Also, holding off can potentially reduce nitrogen loss and excessive early spring growth which can reduce sensitivity to freeze injury. Fields with less than approximately 80 tillers per square foot, during tiller development stages (Feekes 2-3), may benefit from split applying nitrogen. Consider using urease inhibitors containing the active ingredient NBPT when applying urea based fertilizer. Tissue tests just before jointing can help determine nitrogen needs at jointing. Remember that low organic matter (<3%), low CEC (<10) soils of southeast Missouri are also prone to low sulfur conditions and sulfur fertilizers should be applied early. Most low sulfur soils require 10 to 15 pounds per acre of sulfur. Spring sulfur should come in the form of sulfate sulfur found in products such as ammonium sulfate.

For more information on wheat management during green-up refer to MU IPM Guide: Management of Soft Winter Wheat.

Anthony Ohmes, Agronomy Specialist, University of Missouri Extension, Jackson, MO.

FRUIT TREE PRUNING WORKSHOP

February 1, 2017
10:00 a.m. to 12:00 p.m.
Beggs Berry World in Benton, MO

From I-55, take Exit 80 and east 100 yards to county highway 332. Contact David Reinbott at 573-545-3516 to register or more information. Subject to cancelation in case of inclement weather.
Missouri Cotton Production Outlook

Tuesday, February 7 2017
Missouri Fisher Delta Research Center
Registration 7:30 a.m.

7:30-8:00 am  Registration
8:00-8:20 am  “Cotton Insect Technology Updates”-Dr. Moneen Jones, Research Entomologist, Delta Center
8:30-8:50 am  “Soil and Water Research”-Dr. Gene Stevens, Professor, Delta Center
9:00-9:20 am  “Cotton Variety Trials”-Andrea Jones, Delta Center
9:20-9:30 am  “Understanding Labeling For New Weed Control Technologies”-Jim Heiser, Delta Center
9:30-9:45 am  Break
9:45-10:10 am “Can You Achieve a Healthy Stand in Heavy Cover”-Tommy Riley, New Madrid Co. Producer
10:20-11:40 am “Cotton Research Update”-Andrea Jones, Delta Center
11:40-12:00 am Cotton Outlook and Marketing Strategies-David Reinbott-Agriculture Business Specialist, Scott County
12:00 noon  Introduction of Sponsors-Dr. Mike Milam, Regional Agronomist, Dunklin County
Lunch

To register or for additional information contact Andrea Jones (phillipsa@missouri.edu) or 573-379-5431.

CEU’s have been applied for.

EQUAL OPPORTUNITY/ADA INSTITUTION
Future Meetings & Events -

**Fruit Tree Pruning Workshop** - February 1, 2017 at Beggs Berry World, Benton, MO. 10:00 a.m. to 12:00 p.m. I-55, take Exit 80 and east 100 yards to county highway 332. Contact [David Reinbott](mailto:david.reinbott@lamar.edu) at 573-545-3516 to register or more information. Subject to cancelation in case of inclement weather.

**Missouri Cotton Production and Outlook Conference** - Tuesday, February 7th, 2017 at University of Missouri Fisher Delta Research Center, Portageville, MO. Registration: 7:30 am; Program: 8:00 am. CEU’s applied for. Contact Andrea Jones ([phillipsa@missouri.edu](mailto:phillipsa@missouri.edu)) or 573-379-5431 to register or for more information.

**Regional Rice Meeting** - Wednesday, February 15th, 2017. University of Missouri FDRC Lee Farm – Rone Hall, Portageville, MO. Registration: 8:00 am; Program: 8:15 am. CEU’s applied for. Contact Sam Atwell ([atwells@missouri.edu](mailto:atwells@missouri.edu)) or 573-748-5531 to register or for more information.

**Xtend Herbicide Technology Meetings - 2 Locations in Southeast Missouri**

- **Preparing for the Xtend Trait in 2017: Lessons learned and where we go from here**
  - February 27, 2017 at MU Fisher Delta Research Center, Portageville, MO. 1:00 p.m. to 4:00 p.m.
  - March 1, 2017 at Cape Girardeau Extension Office, Jackson, MO. 9:00 a.m. to 12:00 p.m.

**2017 Show Me Grape and Wine Conference and Symposium** - March 8-9 Conference, March 10 Symposium. The Conference will offer many speakers from throughout the U.S. presenting on a wide range of topics. The Symposium will highlight grape and wine research taking place in Missouri and the surrounding region. **Registration ends Monday, March 6, 2017.** All registration is online. Credit cards are accepted. Please click here for the event registration website. Lodging is at Hampton Inn & Suites directly to book one of the block of rooms reserved until February 8, 2017.

**Missouri Pesticide Collection Program - 2 Locations in Southeast Missouri**

- March 11, 2017- Saturday at MU Fisher Delta Research Center, Portageville, MO. 8:00 to 12:00 p.m.
- June 24, 2017 - Saturday at DeWitt Auction Company, 220 DeWitt Drive, Sikeston, MO. 8:00 to 12:00 p.m.

**Commodities and markets** - [http://extension.missouri.edu/scott/crop-budgets.aspx](http://extension.missouri.edu/scott/crop-budgets.aspx)

Contributions to this publication are made by University of Missouri agriculture food and natural resource specialists. If you would like to receive this publication please send an email with request to: denklers@missouri.edu

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