



July 10, 2006

UPCOMING DATES:

August 2-5, 2006

Ripley County Fair
Doniphan, MO

August 10, 2006

Private Pesticide Applicator
Training, Greenville, MO

August 23-26, 2006

Butler County Fair
Poplar Bluff, MO

Aug 31-Sept. 2, 2006

Reynolds County Fair
Redford, MO

September 9-16, 2006

SEMO District Fair
Cape Girardeau, MO

October 6-7, 2006

Madison County Fair
Fredericktown, MO

October 12-14

Iron County Fair
Ironton, MO

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SHADE FOR LIVESTOCK:

July and August typically bring hot temperatures that cause livestock to drop in weight gain and breeding. The question is what can you do to minimize the losses? Research has been performed for two years at Missouri's Southwest Research Center in Mt. Vernon on whether shade makes a difference in gains and pregnancy rates. The farm used portable shades on a group of spring-calving cows grazing endophyte infected and endophyte free fescue in August. Cows given shade gained 25 more pounds than their unshaded counterparts. The calves nursing the cows also outgained the unshaded calves by .16 lb/d.

When pregnancy rates were evaluated, 87.5% of the shaded cows were pregnant compared to 50% of the unshaded cows. An average of 90% of the cows were pregnant at the time the study began. The reduced pregnancy rates of the cows without shade were attributed to heat stress and the endophyte fungus combination causing the cows to "slip" calves early in the pregnancy.

The next year, the same trial was performed on 550 pound steers showing a 0.2 pound per day difference between shaded and unshaded calves. Keep in mind these numbers were averaged for both infected and endophyte free fescue pastures. The difference increased to .35 pounds of gain per day when just comparing the endophyte infected shaded and unshaded groups.

In summary, it is best to provide your animals with shade if possible, especially if your pastures contain a large amount of endophyte-infected fescue. The study showed benefits when using portable shade that was moved throughout a rotational grazing system. Portable shades can also keep you from killing out the grass in one part of the field and spreading out your manure distribution.

SHOW-ME-SELECT HEIFER PROGRAM:

The May 6th Show-Me-Select heifer sale at Fruitland averaged \$1499 on 225 head. There was a \$326 difference between AI and natural bred lots in favor of the AI bred heifers. A majority of buyers like heifers calving earlier in the year which may explain some of the price difference. The cost associated with raising a heifer from weaning to sale time is around \$300 to \$400 each regardless of if you are in the program or not. These sales are generating more attention all the time with several out-of-state buyers purchasing animals. If you are interested in enrolling heifers for the May 2007 sale call and let me know. The enrollment deadline is September 1, 2006. For spring calving herds (December 2007 sale) the enrollment deadline is February 1, 2007.

SEMO BULL SALE:

The deadline for entering bulls into the October 27 SEMO Performance Tested Bull Sale is August 1st. If we do not have at least 40 bulls consigned we probably won't have a sale. This sale is a great marketing tool and will be hard to get going again once we miss a sale. Let me know if you are interested or you can call Crawford Price at 573-996-2386 for consignment information.

SOIL AND HAY PROBE:

Many of you might be wondering how to fertilize your pastures this fall or the nutritional content of your hay. The Wayne County Extension office has a soil and a hay sampler available for your use. We are also able to send of those samples for you. Soil samples run \$13 each (20 acres) and hay samples can be done for less than \$20 (20 round bales).

PINKEYE:

Pinkeye is starting to be severe in some herds right now. The recent rain has helped settle the dust but flies are still a big problem. In 1993, it was estimated that U.S. producers lost \$150 million due to pinkeye because of reduced weight gain, milk production and blindness.

Causes:

Pinkeye is most often caused by the bacteria *Moraxella bovis* also known as *M. bovis*. Other causes of pinkeye are the virus IBR (infectious bovine rhinotracheitis), BVD and other bacteria. Factors that increase the incidence of pinkeye are excessive UV light, flies, dust, and plant material. These factors serve as a means of transmitting the bacteria from an object to an animal or from animal to animal, and may irritate the eye drawing flies or the bacteria itself. Flies are the most harmful when it comes to pinkeye, because they feed on the eye and nose secretions of an infected animal and then transmit the bacteria to an uninfected animal. Research has shown that face flies can remain infected with *M. bovis* for up to three days following feeding on infected material.

Signs and Symptoms:

The first, most common signs of pinkeye are excessive watering of the eye and squinting due to pain. As the disease progresses the cornea becomes cloudy or white. An ulcer will most likely develop in the center of the eye if left untreated. In extreme cases the cornea ruptures and the eye fluid will leak out. Temporary blindness usually occurs if the eye clouds over and a white spot may remain on the eye causing sight problems. Young animals are the most susceptible to pinkeye because older animals tend to build up a resistance to the disease. However, animals can become infected more than once so it is still important to take preventative measures in cattle of all ages.

Treatment:

There are several ways to treat pinkeye. Studies have shown that *M. bovis* is very sensitive to injectible medicines containing oxytetracyclines, ceftiofur, penicillin, and sulfonamides. Feed additives containing oxytetracyclines also have been shown to reduce treatment time and severity of the disease. Catch the problem early and treat it to prevent permanent damage of the eye.

Prevention:

A good fly control program is a must. You can use spray insecticides, dust bags or back rubs, insecticide-

impregnated ear tags, larvacides in feed, or fly traps. Grass, weed and brush control by grazing, mowing, or spraying reduces pollen dust and mechanical irritation that increase the incidence of pinkeye. Breeds of animals with little pigmentation around the eyes are more susceptible to pinkeye than animals with darker eyelids. Vaccinating against pinkeye along with IBR and BVD viral diseases can reduce incidences of pinkeye in herds.

PRECONDITIONING CATTLE:

Weaning time is fast approaching and many of you might be considering marketing your calves through one of the various preconditioning programs available. The question that runs through most producers minds is "Will it pay?". After reading several research studies on preconditioning programs, including sales at Joplin, MO, the overall answer is yes. I say the overall answer because there are different definitions for preconditioning, whether it be "they have had all their shots" to a rigorous vaccination and 45-day weaning period. The thing to look for in a pre-vac program is reputation. When buyers purchase feeders through these programs they expect those calves to have a lower incidence of sickness, be trained to a feed bunk, gain better, and produce higher quality carcasses.

Premiums that are generally seen through pre-vac programs are \$3.04 to \$5.25 or more per hundredweight all the way up to \$11 per hundredweight. Generally it is going to cost you \$25-35 per calf to put them through a preconditioning program. With all costs figured in (feed, labor, vaccinations, treatment) you should see at least a \$23 return per calf. Discounts are given to bulls (-\$4.49/cwt), horned calves (\$1.22/cwt), fleshy calves (\$0.60/cwt), and unhealthy animals (\$23.68/cwt). Typically the above animals will not make it through a preconditioning program and be sold elsewhere.

Specialty sales are the way to go if you decide to precondition your calves. Most pharmaceutical companies have pre-vac programs as well as some feed dealers and independent groups. Not all programs are created equal and some are designed to achieve different goals like retaining ownership in the feedlot. Give me a call if you decide to precondition your calves and I can help you choose a program that fits your operation.

Bird Flu May Impact Backyard Producers First

By Greg D. Horstmeier, News Director
Extension and Agricultural Information

Massive human deaths and inedible poultry meat supplies are good for television movie plots, but a University of Missouri animal scientist said those aren't the greatest concerns regarding highly pathogenic H5N1 avian influenza.

Jeffre Firman, an MU professor of poultry science, recently traveled through rural regions of Asia and Eastern Europe studying H5N1 avian flu impacts on poultry production. His travels, and the realities of how the highly pathogenic version of avian flu would likely spread, have taught him that backyard poultry producers will face the first round of tough decisions should the disease make its way to the Midwest. "There's no reason to panic until it gets here," Firman said. "But from what we've seen in other countries, the chief way H5N1 avian flu will get into domestic animals is through contact with wild birds. The animals with highest risk for that contact are ducks, chickens, turkeys and other domestic fowl that are outdoors, in the open."

Backyard producers-- whether a rural resident with a few domestic ducks around the pond, a free-range poultry producer and marketer, or families involved in showing birds at local fairs--will be on the front line should the highly pathogenic version of the disease come to Missouri or surrounding states. "If it arrives, and that still is 'if,' those poultry owners will have to decide to either move their birds into some kind of building to limit contact with wild birds, or possibly depopulate their flocks."

Firman has made several trips to Azerbaijan and other countries with high levels of highly pathogenic avian flu strain. His travels gave him several hands-on lessons on dealing with the disease. "These are mainly rural, usually impoverished, communities," he said. "Almost everyone in the village or town has poultry that they consume directly or use for income. Once the disease arrives in an area, it spreads quickly in fowl because there are so many flocks so close together."

For Missourians, small poultry flocks aren't that prevalent and flocks usually aren't found close together. While Missouri is fifth in commercial turkey production and just outside the top 10 in meat chicken production, those animals are raised in protected confinement systems. Firman estimates "noncommercial"--meaning small flocks not grown under contracted confinement conditions-- are less than 1 percent of Missouri's domestic fowl flock. "But the risk to outdoor poultry is there, and will be something Missourians will have to

consider should (the disease) arrive," Firman said.

A most-likely scenario-- based on expert reports and on Firman's conversations with other scientists--is that the highly pathogenic strain will show up first in Alaska from wild birds crossing the Bering Strait. Waterfowl could then spread it in North America through yearly migrations. Firman said if the disease arrives in the Midwest, it might likely move into domestic animals through wild ducks defecating in ponds, around feed troughs and on the ground. "Backyard feeding areas are a problem. Wild birds will definitely seek out those areas because poultry feed is a lot easier and a lot more tasty than bugs and seeds," Firman said. "If the disease does arrive we're talking about a need for complete housing for domestic birds. You can't just pen your backyard flock in with a fence and think that is enough protection. You would have to prevent all contact with wild birds and wild bird feces."

Domestic ducks and geese are Firman's highest concern because they could be swimming and drinking from the same ponds as wild fowl. Domestic ducks also have the potential of playing Typhoid Mary, contaminating the farmstead. "From what we've seen in other countries this highly pathogenic strain often isn't fatal to domestic ducks. So they get sick and still move around shedding the virus to other domestic fowl on the farm."

Another concern, the animal scientist said, is the fighting cock trade. Though fighting is illegal in Missouri, the birds are found in the state, and their owners give them the closest of care. "Fighting cocks were a big problem in many countries I've visited," Firman said. "You have birds from one flock coming into very direct contact with birds from other regions during popular sparring events. You have animals that are very valuable to their owners, so it's unlikely the owner would kill them to prevent spreading the disease."

"If it arrives here, those of us in the poultry industry may have to rethink how we do some things. We may have to postpone some poultry shows and figure out how to protect our flocks or decide to get out of the poultry business. But we have the agencies and the systems in place to do all that, and to keep it under control. "My advice to poultry producers is to keep an eye on the issue and educate yourself about the disease. If and when it gets here, be prepared to make some of those decisions."

For more information, including health risks and poultry care issues, see the official US government information website at www.pandemicflu.gov or Jeffre Firman, 573-882-9427.

POISONOUS PLANTS:

Dry conditions and unhealthy pastures make a great environment for unwanted and poisonous plants to grow. Most of the time these plants taste or smell bad to the animal. However, if the animal is desperate for something to eat, a poisonous plant may taste pretty good. Animals can also accidentally eat a poisonous plant when grazing or eating grains. This makes it all the more worthwhile to monitor your pastures and fields and kill plants that could be harmful.

There are several poisonous plants common to Missouri. Jimsonweed, snow-on-the-mountain, croton and wild indigo are typically found in open pastures. Shady areas normally house plants like white snakeroot, bracken fern, pokeweed, and buckeye. Creeks and ditches serve as growing areas for water and poison hemlock, black nightshade, and horsetail. Fields that have been cultivated can accommodate cocklebur, jimsonweed, milkweed, pigweed and johnsongrass in them. Wild cherry, milkweed, and pokeweed are found along fence and hedgerows.

Several signs associated with the consumption of toxic parts of plants are difficult breathing, dilation of the pupils, poor appetite, staggering, weakness, convulsions, paralysis, diarrhea, vomiting, excessive salivation, high fever, bloat, and possibly death. Horses tend to have more problems with toxicity due to the fact that they cannot vomit. If you suspect any of your animals consumed a poisonous plant call a veterinarian immediately. If the animal has died the stomach contents need to be analyzed to determine which type of plant was eaten. Inspect your pastures and fencerows for suspicious plants and have them identified by your local extension office or the Weed Identification Service at the University of Missouri. It is best to remove your livestock from the infected area until all of the poisonous plants have been destroyed. Eradicate the toxic plants by mowing or spraying with the recommended herbicide.

For more information on poisonous plants and their effects on livestock contact your local University Outreach and Extension office and ask for MU Guide G 4970.

UPCOMING PROGRAMS:

Below are some upcoming programs we are planning but have not set the dates for yet. Call me for more information or if you are interested.

Horse Production Course—Winter 2006—covering topics such as reproduction, foaling, pasture and feeds, health, identification.

Cattle Artificial Insemination School—September 2006—teaching producers how to artificially inseminate cattle, synchronization breeding techniques

Goat Pasture Walk—August/September 2006—covering fencing, nutrition of forages, health issues

Winter feeding of cattle and stockpiling fescue—August/September 2006—covering economics of feed/hay, winter rations for cattle, stockpiling fescue

APPLIED REPRODUCTIVE STRATEGIES IN BEEF CATTLE:

A conference on artificial insemination and breeding programs is being offered August 30-31 in St. Joseph, MO. Registration is \$175 before August 16th. If you are interested in attending, let me know and we can car pool. For more information you can go to <http://muconf.missouri.edu/arsbc/agenda.html> or give me a call to learn more. Topics in the program include:

- Current Concepts in Estrus Synchronization
- Progestin-Based Estrus Synchronization Programs
- Using Estrus Synchronization and AI to Enhance Herd Productivity
- Using AI to Enhance Product Quality
- Management Considerations that Impact Reproduction
- Considerations Related to the Male
- Current Topics in Reproductive Management