commercial agriculture

2009 Missouri Beef Tour planned for August 29

By Michelle Proctor, Senior Information Specialist

"This year's Missouri Beef Tour will provide an opportunity to see a diverse and broad range of cattle operations," said Rex Ricketts, director of the University of Missouri Extension, Commercial Agriculture Program. The south central Missouri Tour on Saturday, August 29, begins at 12:30 P.M. at Oak Knoll Ranch in Dent County. It travels through Phelps County and ends in Crawford County.

The Commercial Agriculture Program has organized and sponsored the annual Tour since 1996. The 2009 Tour will feature a Hereford seedstock operation, a high stock density operation, a managed intensive grazing system, a backgrounding operation and a silvopasture facility.

Each owner will talk about their history and how the operating methods they presently use have evolved. In addition, an industry specialist will give a presentation on related subjects at each stop.

Leon and Helen Kreisler established Oak Knoll Ranch in 1985. Leon attended the initial Missouri Grazing School in 1991 and then developed his first intensive grazing system. Being from Missouri, he took the "show me" attitude to see how a one acre paddock would work before investing in a larger operation. Finding success, he expanded to 15 paddocks covering 70 acres. The ranch now includes 480 acres.

"My biggest expense and challenge has been routing water to the paddocks," said Kreisler. Oak Knoll fall calves their 123 head, commercial Angus-based herd.

The Kreislers have met their original goals of greater production with less fertilizer cost, wintering half the herd entirely on pasture and the other half supplemented by 1500 to 2000 pounds of hay for two months in winter.

George Barnitz and his son Frank operate the 142 year old farm, Barnitz Farms, with a 450 head herd of commercial black and red Angus, calving in spring and fall. The sixth generation, Frank’s daughters and their cousins, continue the family tradition by participating in 4H and FFA.

Barnitz Farms custom-backgrounds calves for the South Ozark Premier Beef Marketing Group (SOPBM). Frank and George, as well as SOPBM, have recently participated in University of Missouri distillers grains experiments in their backgrounding operation.

A highlight of the farm is a huge red barn built in 1868, still in full use and maintained in its original condition. The Barnitzs have only updated the barn's function with the addition of two sliding metal doors. The century and a half old property lies on 2500 acres in one contiguous block along DC Road 2080.

Glengrove Farm was established as Century farm in 1903. From 1926 to 1965 it operated as a registered Jersey dairy farm. Robert and Gretchen Thompson began breeding registered Herefords in 1973.

"My grandfather moved to our present farm location along with my father, who was 9 years old at the time, in 1903. So, I'm a third generation farmer on this property," said Thompson. "We don’t have children but we enjoy working with juniors who are starting their beef projects or showing their animals. We are proud supporters of 4H, FFA and the Missouri Junior Hereford Association.

"We take our responsibilities very seriously—to breed the best," Thompson continued. "We breed cattle that will make a contribution to the Hereford industry."

Thompson knows every one of his cattle by its name as well as pedigree.

Thompson keeps forty-plus cows and calves, and about a half a dozen registered Performance Tested Bulls on 160 acres. The herd calves in the spring and fall.

Thompson participates in total herd reporting with the Breed Association. He sells by private treaty and at performance tested, production, and state Hereford sales.

The oldest family farm, originally known as Parry Polled Herefords, was established by Mary Beth Parry Pogue’s family in the early 1800’s. The Pogues and their children represent the sixth and seventh generations on the property. Mary Beth, an educator, and Denny Pogue, a banker, have full-time jobs outside the farm.

The Pogues run a cross-bred Angus herd of about 100 fall calving cows. The herd grazes pasture fifty weeks a year. Denny and Mary Beth prefer reducing the number of cows to feeding hay.

In September of 2008, Denny experimented with high-stock density grazing on one acre paddocks and found it very cost efficient. "We needed less fertilizer as the waste was spread evenly and the herd required less hay.

"We started with 6000 pounds of forage per acre and ended up with 1500 pounds. It only takes one week to grow back four inches," said Pogue. "By December 1st, the forage was back up to 4500 pounds per acre."

The Pogues have 210 acres in their grazing system. The eight to twelve acre paddocks all have a grove of trees. Electric fences keep the cows in the designated paddock. "With one acre paddocks, we have to move the cows every night so we are going to try two or three acre paddocks. That will also cut down on the fencing needs," said Pogue.

The Pogue’s goals are to keep one cow per three acres in the grazing system without feeding much hay, to reduce fertilizer supplements to zero, and to sell 70 to 75 calves each year. They plan to fence the exterior boundaries and install free-ranging goats as a brush management tool.

The Tour will end at the University of Missouri’s Agricultural Experiment Station, Wurdack Farm, with a tour of the managed grazing and silvopasture systems at the facility. A beef dinner will be served at Wurdack to those who registered at Tour stops during the day.

All of the owner/operators represent multiple generations of area farm families. Most are still farming on the original property. Attendees of the 2009 Missouri Beef Tour will experience a bit of history as well as a tutorial on how these 19th century farms have been brought, cost efficiently, into the 21st century.
Show-Me-Select fall-calving heifers sell for average of $1,231 at Carthage

By Duane Dailey, Senior Writer, University of Missouri Cooperative Media Group

In a sale of Show-Me-Select fall-calving bred heifers, 209 head averaged $1,231 at Joplin Regional Stockyards on Friday, May 15.

“We just didn’t have enough bidders to bring the prices that producers were wanting,” said Eldon Cole, University of Missouri Extension regional livestock specialist and auction sales manager. The heifers were grouped into 62 lots with one to six head of matched heifers.

Two weeks before, a spring sale of 126 Show-Me-Select Replacement Heifers at Fruitland in southwest Missouri averaged $1,401.

Ladd Ranch of Sparta, Mo., took the top average among the 16 consignors with $1,303 on 12 lots. Now in its sixth year in the sale, the Ladd family usually enters black whiteface heifers with one-eighth Brahman in their backgrounds. This year they added 21 red heifers of Gelbvieh-Hereford cross. Ladd Ranch was the largest consignor in the sale.

Quinton Bauer, Verona, Mo., had the second-highest average with $1,287 on four lots of crossbred Angus heifers. Most were bred with fixed-time artificial insemination to calve on September 8.

Cupp's Farms, Shell Knob, Mo., was third-highest, averaging $1,285 on four lots. Kleiboecker Farms, Wintzwood, Mo., took fourth, averaging $1,255 on four lots of mostly Angus heifers.

“We had a good sale. We've had worse,” Cole said. “Our sellers were satisfied with the results, even though they were not more bidders. There wasn’t the excuse for low prices that producers were wanting,” said Eldon Cole, University of Missouri Extension livestock specialist.

During the sale, Cole recognized John and Janet Massey, Purdy, Mo., for having consigned heifers in all 20 Show-Me-Select sales in southwest Missouri. They are the only consignors to do that. Helping Cole with the auction were MU Extension livestock specialists Dona Funk of Stockton and Bill Doig of West Plains.

There were 24 buyers among the 57 people who picked up bidder numbers before the sale. Four bidders bought over the Internet. The heifers can be seen online during the auction. Buyers must register to bid. Internet bidding is gaining users, said Mark Harmon of Joplin Regional Stockyards.

All heifers are guaranteed bred for 30 days after the sale. All were pregnancy checked within 30 days of the auction. Market graders from the Missouri Department of Agriculture inspect all consignments upon arrival for body condition and conformation requirements. Heifers not meeting the standards are sent home.

At the end of the auction, Cole reminded bidders to return the first Friday in November for the sale of Show-Me-Select heifers bred to calve next spring.

Beef producers who want to enroll heifers for the next Show-Me-Select spring sale should enroll by August 1 through an MU Extension livestock specialist. For more information about the Show-Me-Select Replacement Heifer Program, see http://ageeb.missouri.edu/select/.

Economic comparisons for heavy cows

By Rebecca Gants, Senior Information Specialist, West Central Region

When buying replacement heifers or cows, producers need to consider the relationship of their size preferences with cow performance and efficiency, said a University of Missouri Extension livestock specialist.

“Attend any cow or heifer sale and you will see that larger, heavier cows and heifers command the highest prices,” said David Hoffman, “Cattle producers like to look at heavy cows in their front pastures, but do those big cows and heifers actually make more money?”

Maybe not. Hoffman cites a study from North Dakota State University that catalogued cows according to their average weight and respective performance. The heavier cows actually made fewer total dollars in terms of calf sales, Hoffman said.

Not only did the percentage of cow weight weaned decrease as cow weight increased, the actual weaning weight of the calves decreased, he said. For example, cows weighing 1,200 pounds or less weaned 50 percent of their fall weight with 617-pound calves, while cows that weighed more than 1,600 pounds weaned 34 percent of their fall weight with 572-pound calves.

“Another economic consideration is the number of cows to have in your herd,” Hoffman said. “If a farm is capable of supporting 100 head of 1,400-pound cows, the same farm should have the capability of supporting 120 head of 1,200-pound cows. The primary difference is the smaller cows would eat less forage. Most producers would like to sell an additional 16 to 20 calves every year.”

David Hoffman can be reached at 816 380-8460 or hoffmann@missouri.edu.
Fire ants may be hiding in imported hay

By Curt Wohleber, Sr. Information Specialist, University of Missouri Cooperative Media Group

Missouri farmers who bought hay from parts of the southern U.S. may have accidentally brought along a nasty visitor.

The imported fire ant, an aggressive, stinging insect native to South America, has infested more than 380 million acres in at least 13 states, according to the USDA’s Animal and Plant Health Inspection Service (APHIS). The ants can spread to new locations as stowaways in bales of hay.

"The increased trade and transport of hay into Missouri over the last few years has increased the risk of the pest being transported into the state," said Brian Deschu, APHIS domestic program coordinator in Jefferson City, Mo.

"I’ve been concerned about fire ants getting here since I came to Missouri in 2000," said Richard Houseman, University of Missouri Extension entomologist. Houseman studied for his doctorate at Texas A&M University, right in the heart of the “Fire Ant Belt.” In some parts of the South, fire ant colonies are so widespread that residents learn to be careful where they step.

Imported fire ants were inadvertently introduced to this country about a century ago. Free of the natural predators that kept them in check in South America, imported fire ants have become a significant pest throughout much of the southern United States. The ants are reddish-brown or black in color and are 1/8- to 1/4-inch long, according to APHIS.

"Imported fire ants are a minor threat to agricultural crops, but are a bigger threat to the landscaping, nursery and sod industries," Houseman said. "They have a major impact in residential areas. They produce unsightly mounds, enter residential structures and deliver a potent sting when they are threatened or disturbed."

Imported fire ants disrupt natural ecosystems by displacing beneficial native insects and killing small mammals, reptiles and ground-nesting birds, he said.

When threatened, they can attack en masse, repeatedly jabbing victims with their venom-filled stingers. The venom produces an acute burning sensation—hence the name “fire ant”—followed by the formation of itchy or painful white pustules that may take days to disappear.

APHIS is enforcing a federal quarantine that regulates the transport of certain items, including baled hay that has been in direct contact with the ground, soil, grass sod and soil-moving equipment. Regulated items cannot be moved outside the quarantine area unless certified by federal or state inspectors.

The quarantine area includes all of Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina and Puerto Rico; large portions of Arkansas, North Carolina, Tennessee and Texas; and small parts of California, New Mexico and Oklahoma.

Houseman said southern Missouri is at risk because of its proximity to existing imported fire ant infestations and a climate congenial to imported fire ants, particularly in the Bootheel region.

Imported fire ant colonies build distinctive foot-high mounds that can damage vehicles and farm equipment. Underground colonies can undermine sidewalks, roads and bridges, inflicting extensive and costly damage, he said.

"The ants also have a mysterious attraction to electrical equipment," Houseman said. "They will nest in circuit breakers, air conditioners and similar items. They have shorted out traffic signals and disrupted power in buildings." According to a study at Texas Tech University, fire ant damage to electrical and communications equipment in that state totals hundreds of millions of dollars annually.

"This would have a bigger impact than the emerald ash borer's arrival in Missouri," Houseman said, referring to the beetle that has killed millions of ash trees in Michigan and was found in southeastern Missouri in 2008.

"While the deaths of millions of urban ash trees in Missouri’s cities and towns would have a significant economic impact, widespread infestations of imported fire ants would affect everything from agriculture and municipal infrastructure to public safety and everyday life," he said.

If you suspect the presence of imported fire ants, Houseman recommends contacting your local MU Extension center or MU Extension’s Plant Diagnostic Clinic at 573-882-3019. See http://soilplantlab.missouri.edu/plant/ for more information.

You can find out if a particular location is under quarantine through the APHIS Web site by viewing a quarantine map or entering a ZIP code at http://www.aphis.usda.gov/plant_health/plant_health_home.html. The site contains extensive information about imported fire ants, including guidelines for producers and purchasers of baled hay.

Learn about cotton

From the Alaca Company's Cottons.Journey.com

In the U.S. there are fourteen major cotton growing states that produce Upland cotton. They are Alabama, Arizona, Arkansas, California, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia. Some cotton is also grown in Florida, Kansas and New Mexico. American Pima cotton is grown in Arizona, California, New Mexico and Texas. All of these states form a region in the United States known as the Cotton Belt and have three things in common: lots of sunshine, water and fertile soil—very important to growing a good cotton crop.

Upland cotton is the most common type in the United States. Upland has a staple length (length of fiber) of 13/16 to 1 ½ inches. American Pima cotton has a staple length of 1 5/16 to 1 ½ inches. These plant types grow and mature at different rates and lengths of time, but basically mature within a 30 day period of each other.

Cotton plants have a general time frame in which they grow and produce after planting. With ideal conditions, the planted cotton seed will germinate and emerge in about five to ten days. The first two leaves that are visible on the young cotton plant are seedling leaves called cotyledons. They are used for absorbing sunlight into the plant. The sunlight is then converted through photosynthesis, into nourishing carbohydrates that will help the plant grow.

In about two to four weeks they turn over the photosynthetic task to true leaves (leaves produced subsequently to the cotyledons) which continue the feeding process for the duration of the plants life. The plant continues to grow, adding leaves and height, and in approximately five to seven weeks, small flower buds called squares (a small flower bud covered with fringed leaf-like parts called bracts) will appear on the cotton plant. As this square develops, the bud swells and begins to push through the bracts until it opens into an attractive flower.

Within three days, the flower will pollinate itself, change from a creamy white or yellow color to a pinkish red, and then wither and fall, exposing a small, green, immature cotton bud (a segmented pod containing 32 immature seeds from which the cotton fibers will grow). The boll is considered a fruit because it contains seeds. As the fibers continue to grow and thicken within the segmented boll, it enlarges until it becomes approximately the size of a small fig. Now, the cotton fibers have become mature and thickened with their primary growth substance, cellulose (a carbohydrate, the chief component of the cell wall in most plants). An average boll will contain nearly 300,000 fibers of cotton and each plant may bear up to 100 bolls. In about 140 days after planting or 45 days after bolls appear, the cotton boll will begin to naturally split open along the bolls segments (carpels) and dry out, exposing the underlying cotton segments called locks. The dried carpels are known as the bur, and it’s the bur that will hold the locks of cotton in place when fully dried and fluffed, ready for picking.

The growth cycle of the various cotton species vary in length, but the sequence of fruit production remain the same. Weather, insects and moisture can adversely affect optimum conditions for plant growth and the cotton farmer must adjust to these conditions to optimize yield.

Please visit the Alaca Company's website, http://www.cottonsjourney.com/storyofcotton/page3.asp, for additional educational information on cotton.
Estate planning for farm families

By Michelle Proctor, Senior Information Specialist and Vern Pierce, PhD, JD, University of Missouri Extension

What is going to happen to your family farm business after you are gone? Are you among the many who have not prepared for that event? Your estate will be distributed whether you have a will or not and your underage children will be assigned guardians. The only difference is whether you have any say in either choice.

If you plan for it, you will be able to make these decisions—if you don’t plan, you will not. Sound simple? It is! At least, the decision to “do it”, is simple. In the coming months, The Commercial Ag News will help you through some of your decisions and advise you of options so that when you go to your attorney, you will be better prepared. Advanced preparation will save the attorney time and save you money.

In the series, “Estate planning for farm families”, the Commercial Agriculture News will provide guidance for readers concerned with this issue. Vern L. Pierce, PhD., JD, Associate Extension Professor, Agricultural Law, Business and Economics, University of Missouri Commercial Agriculture Program, will offer advice on the initial steps farm families should take. We hope to inspire our readers to start thinking and talking about these transitions.

Many consider the passing of a family farm to future generations one of the few guarantees of immortality over which man can have influence. If not immortality, the successful passage of farm property can preserve an owner’s legacy and a family’s way of life.

Speaking about wishes, written wills, and the legalities of estate planning is something many family members avoid at all cost—as if saying the words out loud may hasten the transition. It is not bad luck. It is good sense.

Families where husband and wife and their children currently work together on the farm should have the easiest experience making their wishes known to one another. Each has current responsibilities that are being fulfilled and each should have a greater understanding of the responsibilities of the others.

However, many farm families have children “off the farm.” Do you want them to have equal shares? Are they entitled to equal shares? That is one of the most important decisions the family may have to make. If you don’t make your intentions clear in a legal, estate planning document your children may end up with exactly the opposite of your wishes. This can lead to a parent’s worst nightmare: children fighting over estate issues after the parents are gone.

The children working on the farm are not only putting in manual hours, but they may be putting aside other interests and ambitions for the sake of preserving the family farm. Factors such as these should be taken into consideration when future ownership rights are decided, just as considerations should be made if the off-farm children are off-farm not by choice, but by extenuating circumstances.

It is important in this process that the generations open lines of communications that are comfortable for everyone. If multiple generations beyond “parent to child” are involved, the responsibilities and rewards of the next generation should be spelled out in estate planning documents as well.

Common questions and answers concerning wills

Why is it better to have a Will?
- Only you decide who receives your property.
- You can name a guardian for your minor children.
- You can provide for children without the court stepping in.
- You can set up a trust for your family.
- You can save on some death taxes.
- You will know that you have planned for your family.

How long is a Will legal?
- Until changed or canceled by you.
- A Will benefitting a spouse will not be enforceable if you get a divorce.

When should you think about changing your Will?
- Your family changes through marriage, divorce, or death of a member of your immediate family.
- Your family, property, money or other assets substantially change in value or nature.
- You move to another state.

Can anything take the place of a Will for some assets?
- Property or bank accounts titled jointly with others.
- Life insurance is a way to own property and provide for its transfer upon your death without a Will, but it is not a Will.
- A living trust, which allows one to designate an individual or an entity (such as a bank) to manage property within the trust.
- These should be used in place of a Will only after you have talked to a lawyer. You should always have a Will in addition to these other techniques as a safety net.

Where should I keep my Will?
- If you have designated an executor be sure that person knows where your Will is located. He/ she doesn’t have to have a copy; they just have to have it in their possession.
- If you are married, make sure you and your spouse know of the location of the newest edition of the Will.
- You attorney will likely be willing to keep a copy for you.
- Most importantly, it is perfectly fine if no one but you and your attorney know what is in the Will, but someone has to be able to find it when you die or the courts may assume you did not make one and they will decide what happens.

Do you have other questions relating to family farm estate planning? Please email them to piercev@missouri.edu or phone to leave a question with Shane Ferguson at 573 884-6311. We will continue this series in the Commercial Ag News, fall issue.

Much ado about nothing...
but it cost the hog industry millions

By Michelle Proctor, Senior Information Specialist

H1N1 is the name, not the swine flu. But the popular media did not find letters and numbers catchy (sexy?) enough. The virus turned out to be far less dangerous to human life than normal seasonal flu. It was virtually impossible to catch from swine.

“The world-wide media frenzy caused damages of almost 500 million dollars to the hog industry in the first five weeks of the outbreak,” said Ron Plain, University of Missouri Extension, Commercial Agriculture Program, economist.

Russia, China and other foreign governments used the flu scare as an excuse to violate trade agreements with the United States and Mexico in order to prop up the over-reaction to the mis-named “swine flu” became the final blow for many smaller producers. The industry produced a record number of hogs in 2008. Since the H1N1 outbreak, the USDA has predicted U.S. exports will decline at least 12 percent in 2009.

Producers were losing approximately $20 a head by July 1—a 25 percent decline in prices. Large operators such as Smithfield will survive because of their diversified operations, the strength of their balance sheet, and support they receive from lenders. Smaller farms could be forced to close down if they cannot diversify with beef, corn or other crops.

Sticks and stones... Names can hurt you.
Agricultural Lenders School held in June

By Michelle Proctor, Senior Information Specialist

“The Agricultural Lenders School offers a supportive environment for like-minded professionals to learn together in small teams”, said Ryan Milholin, University of Missouri Extension Commercial Agriculture Program, project manager. “We have designed an environment for learning that is fun as well as challenging. Sixteen students from Missouri, Arkansas, and Illinois attended this year.”

The Agribusiness Development Institute developed the school as a high level intensive program for agricultural lenders. The week-long program offers a unique opportunity for lenders to learn both the detailed mechanics of agricultural credit analysis as well as to learn how the changing structure of agriculture will likely affect their business and their careers.

Dr. Freddie Barnard of Purdue University conducted intensive-learning classes during the first three days. Dr. Barnard covered such subjects as creating projected cash flow statements, deferring taxes, financial ratios, and profitability analyses. Dan Coons, executive vice president and chief lending officer, Macon-Atlanta State Bank, gave a class on building an agricultural portfolio and understanding farm marketing. H.C. Russell, MFA Ag/MO Credit, spoke about supplier credit, financing and collecting.

Other speakers included Bob Morrow, HNB Bank, Kevin Langford and Jeff Houts of FCS Financial, and Dr. Pat Weshoff, University of Missouri Food and Agricultural Policy Research Institute. Joe Horner, UM Commercial Agriculture Program, beef and dairy economist, served as moderator and the closing speaker. “Backgrounding is a growth industry in Missouri,” said Horner. “And most stocker/backgrounders are focused on making money.”

Quoting Peter R. Drucker, Horner told attendees, “They are entrepreneurs—always searching for change, responding to it and exploiting it as an opportunity.” For lenders, that also signals opportunities to make money.

The seminar concluded on June 5 with a graduation ceremony and photo-opportunity. Because of the current economic crisis and the responsibility being laid on commercial lenders, Milholin and Horner considered this year’s school to be of critical importance for both lenders and agricultural producers.

Lunch and Learn events scheduled for summer

By Michelle Proctor, Senior Information Specialist

An effort to showcase the Missouri Agriculture Committee’s commitment to Missouri communities—a series of Lunch and Learn events, were scheduled at eight Missouri farms this spring and summer. Selected locations were representative in size and subject of the agricultural community in Missouri.

“Beginning in May and running through July, the MO Ag Committee budgeted over $20,000 from state Checkoff programs to fund the events,” said John Kleiboeker, committee chairman and executive director, Missouri Beef Industry Council.

Members and sponsors include Dr. Rex Ricketts, University of Missouri Extension, Commercial Agriculture Program; Don Nikodim, Missouri Pork Association; Hilary Holeman, Missouri Corn Merchandising Council; Dan Cassidy, Missouri Farm Bureau; J. P. Dunn and Adam Buckallew, Missouri Soybean Council; and Merrel Breyer, Missouri Department of Agriculture. Other committee members represent the beef, dairy, egg, and poultry industries.

“The objective of the committee is to demonstrate to community and producer leaders, the benefits of a strong agricultural industry,” said Kleiboeker. “The MO Ag Committee hopes to inform participants and community leaders in order for them to make educated decisions.” The Lunch and Learn series is a grassroots effort to promote animal agriculture by holding educational presentations at farms and producer operations throughout the state.

The MO Ag Committee maintains an educational forum through the Lunch and Learns with no political messages. The owners/hosts give a presentation about their operation. Their talk is followed by an overall update on Missouri Agriculture from a committee member. Key messages the Committee hopes to communicate are that Missouri Agriculture is committed to economic development; to providing a safe, wholesome, abundant and affordable food supply; and to good stewardship of land/soil and water for future generations.
Dairymen suffering through the worst financial squeeze in the past 35 years need to stay focused on their next three years in business—not the last six months—for the future of their dairy and their own mental health. After a price collapse like the dairy industry had this spring, dairy operations tend to hit peak financial stress later in the year. Late summer usually means depressed milk production due to heat stress and having lots of dry cows. Also in the late summer months, the smallest milk checks of the year arrive to pay aging bills from making hay, planting corn silage, and fertilizing alfalfa.

Combine low milk production, an empty checkbook and overdue bills and you have the recipe for financial stress.

During stressful periods it may be necessary to remind yourself, your family, and your lenders that seasons and cycles turn. Dairying is a cyclical business. Experienced dairymen regularly bear through a three year cycle in U.S. milk prices. The present downturn is more difficult.

The price of milk going into cheese plants fell from $17.06/cwt last October to $9.31/cwt in February. During this same period, USDA estimates the operating cost necessary to produce milk in Missouri fell from $17.25/cwt to $15.15/cwt. Deep negative margins have continued for the first six months of 2009.

Just as drought stress indicates where the thin soils lie on a farm, today’s financial stress is showing where underlying thin cash flow coverage and marginal financing may have been waiting to cause problems for your farm business.

Dairy producers wishing to apply lessons from this crisis in order to mitigate future financial risks may want to consider the following financial suggestions to bullet proof their finances for the future:

- Give your lender a detailed balance sheet listing what you owe and what you own as of December 31st every year. A lender with an historical file detailing long term equity progress for your farm will be much more willing to ride through collapses like the current one, regardless of what profits you report on your income taxes. Compare this to feeding a bit of grain to a horse every day, just to keep him easy to catch.

- Try to keep your farm’s total annual principal and interest payments below 15% of your average gross revenue (10% for small farms with large family living draws, 20% for profitable large farms). Loan restructuring may help accomplish this, but waiting till your well goes dry to start looking for a well driller is less than optimal.

- When good milk prices do eventually return, pre-pay expenses for the following year, and pay off short term notes to give yourself breathing room.

There has been a great deal of interest in synchronizing dairy heifers for breeding. The University of Missouri’s Foremost Dairy was looking for a way to group breed their heifers when breeding season began in December, 2008. Daniel Mallory, a graduate student of Dr. Dave Patterson, has been working with a protocol named “Show Me Synch” in beef heifers.

The protocol involves the use of a CIDR and prostaglandin. The CIDR is inserted for two weeks (14 days). Sixteen (16) days after removing the CIDR, the heifers receive an injection of prostaglandin (lutealyse, estrumate, estroplan, etc.) and are then bred on signs of estrus for the next six days. Dr. Patterson, Daniel Mallory, and the Genex group are researching timed breeding in beef heifers and cows.

In December of 2008, Foremost Dairy used the Show Me Synch program on 49 Holstein and Guernsey heifers. Estrus protect patches were placed on the heifers to aid in heat detection. Due to the fact that they were using Gender Selected semen, the heifers were bred by the AM/PM rule after detection of standing estrus. In five days they bred 47 out of the 49 heifers.

The largest percentage of heifers were bred at 60 and 72 hours after the receiving prostaglandin. Subsequently, 27 of the 47 bred heifers conceived (55%).

This was an improvement for conception rate using the Gender Selected semen.

Given the success accomplished with beef cattle and Foremost’s dairy heifers, Drs. Matt Lucy, MU reproductive physiology, Dave Patterson, MU Extension beef reproduction, and Scott Pooch, MU Commercial Agriculture dairy veterinarian, developed additional field trials with dairy heifers.

Seasonal grazing herds have a tight calving window due to herds. Therefore, the Show Me Synch program was instituted on several grazing dairies, as well as a large traditional dairy. At the traditional dairy the 209 heifers were split between the Show Me Synch program (105) and a more common way of synchronizing by injecting a group of heifers (104) with prostaglandin only.

All the heifers at the traditional dairy were weighed and palpated for reproductive tract scores (RTS) prior at the start of the trial. The heifers were sorted by weight and RTS. Once again, due to the fact that heifers were bred to Gender Selected semen, estrus protect patches and heat detection were used.

The heifers were bred using the AM/PM rule. At this point, only breeding data is complete, but the results are encouraging. Of the 105 heifers on the Show Me Synch program, 96 were bred primarily over two days. In contrast, the prostaglandin-only heifers had 69 of the 104 bred, spread over a six day period.

Likewise, on the two grazing dairies, a large percentage of heifers showing signs of estrus in a tight window were observed. Of the 120 heifers that were synchronized, 107 showed heat and were bred. One farm bred on the AM/PM rule because of the use of Gender Selected semen. The second farm bred once a day based on estrus signs using eutectopatches.

What does this all mean? Pregnancy check data is still needed, but the estrus response has been favorable. The synchronization has been tight with heifers expressing heat within 48 to 66 hours after the prostaglandin. Dr. Patterson, Daniel Mallory, and Genex’s latest data on timed-breeding will be added to the present data.

The trials will be repeated with dairy heifers. Kurt Watson of Genex suggests looking at the economics of synchronizing and the use of Gender Selected semen. Joe Horner of the MU Commercial Agriculture Dairy team will analyze the economics of the study once pregnancy results are computed in July and August, and all data has been submitted.
It’s time to cool off!  
By Dr. Tim Safranski, State Swine Breeding Specialist

Today’s pigs are significantly leaner than those of the not too distant past. What is interesting is how did we get them there?

If we look at the results of selection experiments where the objectives were to decrease fatness, a common outcome is that growth rate is slightly depressed and this appears to be due to a decrease in appetite. We know barrows are fatter and grow faster than gilts — also largely due to differences in feed intake. So why, when pigs are hot, do they eat less and get fatter? It appears that the excessive heat load actually alters their ability to deposit lean.

Work at the University of Missouri (Lopez et al., 1991) demonstrated that pigs raised under hot environments ate 10.9% less than contemporaries in a thermo-neutral or comfortable environment, but experienced 16.3% lower weight gain.

For now suffice it to say that pigs finished under high temperature conditions eat less and end up with fatter carcasses. What can be done to alleviate this? A common recommendation is to make changes in the feeding program.

Another solution is to provide an environment which minimizes the effects of temperature extremes. Since it’s already hot out let’s not talk about new buildings, but provide a summary of a report presented at the Fifth International Livestock Environment Symposium (Bridges et al., 1997).

The concept behind evaporative cooling is that as water changes from a liquid to a gas it uses energy, thus reducing the temperature of the air around it. This is different from the old wallow where the water was conducting heat away from the body.

Bridges et al, 1997, acknowledge that evaporative cooling pads may be the most popular form, but that they require a significant initial capital investment and will not work in all finishing facilities.

Evaporative cooling maintenance

By Dr. Joe Zulovich, MU Extension Structures Engineer

Some basic maintenance of your evaporative cooling systems should be done on a regular basis to help ensure effective cooling of your pigs. Most maintenance requirements vary depending upon whether you have a sprinkler, evaporative pad, mist, or/and fogger systems. However, the higher the quality of water used for your system has a significant impact regardless of which system you are using. Water that is clean and has minimal hardness will help reduce the amount or regular maintenance required.

Sprinkler and mister systems tend to be the easiest to maintain. The cooling water should be filtered to remove any sediment to minimize sprinkler plugging. The filter needs to be checked periodically to ensure it is not reducing water flow due to plugging. All nozzles or emitters should be checked daily, or at least weekly, to ensure water is flowing to provide pig cooling.

Nozzles or emitters found to be not working should be cleaned or replaced. Evaporative cooling pads should be allowed to dry for at least four hours each night. This daily drying usually controls algae growth and helps maintain pad life. Sometimes, pads can be washed with a lower pressure power washer to remove any sediment build-up. This will lengthen pad life. Care should to be taken during washing so that pads are not damaged.

Fogger systems normally use high pressure to create a fine mist or fog inside the barn. Fog evaporates to cool the air. Often times, minerals will build-up on the fogger nozzles during the evaporation process. Mineral build-up can form quickly and must be removed from the nozzles to ensure proper operation. A second set of fogger nozzles eases maintenance efforts when fogger nozzles must be cleaned on a daily basis.

More information on maintenance of evaporative cooling systems can be found at http://agebb.missouri.edu/swine/facilitiesequip/index.html. Contact Joe Zulovich at 573 882-0868 for a hard copy of the “Maintenance of Evaporative Cooling System” handout.

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Typical gestation/breeding barn in mid-Missouri that utilizes evaporative cooling cells and mechanical ventilation. Cooling cells are pictured in the upper right hand corner with a fan pulling air out of the facility at the end of the barn. Photo & captions provided by Amanda Williams, swine researcher.

Pork Profit Seminars held in Spring

By Michelle Proctor, Senior Information Specialist

“Corn ethanol has a worse impact on the environment than gasoline,” stated a recent US Environmental Protection Agency (EPA) report. The EPA report reached the conclusion because of land-use impact, i.e., more areas being cropped. Brazilian sugarcane ethanol production has actually reduced Greenhouse Gas (GHG) emissions by 64% compared to gasoline.

Good news for hog producers! “Yes” according to Dr. Ron Plain, University of Missouri Extension, Commercial Agriculture Program, economist. “Because of the federal government’s 2007 Renewable Fuels Mandate, the corn component of ethanol will reach a peak of 15 billion gallons in 2015, though total ethanol production will climb to 35 billion gallons by 2022.”

Plain spoke at the Pork Profit Seminars in May, sponsored by the Missouri Pork Association and featuring MU Commercial Agriculture Program specialists as speakers.

The use of corn for ethanol will be supplemented by other sources — mainly cellulose, in accordance with the mandate. Ethanol production has been mandated by the government since 2008. The mandate has caused more corn to go to ethanol production, leaving less available to producers for feed. Feed prices have spiked.

Plain covered the economic fallout of the “non-swine flu,” as he chose to label the outbreak of influenza type A virus, H1N1. “US producers will lose money as they will have to limit hog production while the demand for pork diverts. Mexico’s entire economy is depressed so the demand for US pork is at all time low.”

“Many countries, like China and Russia, who normally import large amounts of US pork, have enacted trade restrictions banning imports. They are citing fear of transporting the virus, but they are really just practicing protectionist policies to improve the market for their domestic producers,” said Plain. “The US hog farm income forecast for 2009 is one half billion dollars less than normal.”

Dr. Tim Safranski, MU breeding specialist, gave two presentations to Pork Profit Seminar participants. One lecture concerned the first three days post-farrowing piglet survival, and the second, achieving 13 total born alive and how weaning age plays a role.

To help ensure after-birth survival, Safranski recommended inducing labor and supervising births. “Get the piglets warm and dry as soon as possible,” he instructed the audience, “Supervision will enable you to assure early colostrums intake by rotating the piglets on and off the udders. Without supervision, smaller piglets get pushed aside and do not get the protection the sow’s early milk will provide.”

Dr. Beth Young, MU Commercial Agriculture’s veterinary specialist, was also one of the featured speakers. “Slaughter hog shipments to the United States from my home province of Ontario, Canada, are down 60 percent from 2008 due to Country of Origin Labeling (COOL). Feeder pigs shipped to the US are down 30 percent from 2008.”

“The majority of herds are family-operated, land-based farms. There are approximately 2900 pig producers in Ontario, with about 500,000 to 600,000 hogs per farm. Those figures are down 20% in 2009,” said Young.
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**SUMMER ’09**

Commercial Agriculture  
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2009 Dates

**JULY**

8-10  MO Dairy Grazing Conference, Joplin
15  Pest Management Field Day  
Bradford Research & Extension Center, Columbia
28-31  Crop Injury & Diagnostic Clinic  
Bradford Research & Extension Center, Columbia

**AUGUST**

13  Greenley Field Day  
Greenley Memorial Research Center, Novelty
25  Grapes-Chapple Farm Field Day, Rock Port
26  Hundleby-Whaley Field Day, Albany
29  2009 Beef Tour  
Dent, Phelps, Crawford Counties

**SEPTEMBER**

2  CAFNR Fall Round-Up  
Natural Resources Conservation Hall, Columbia
2  Delta Center Field Day, Portageville
3  Bradford Tomato Festival  
Bradford Research Center, Columbia
11  Southwest Center Field Day  
Southwest Center, Mt. Vernon
17  Beef Research and Teaching Farm Field Day  
South Farm, Columbia

**OCTOBER**

2  Wurdack Field Day  
Wurdack Farm, Cook Station
17  Chestnut Roast  
Agroforestry Center, New Franklin

**DECEMBER**

4 – 5  Missouri Livestock Symposium  
Kirksville Middle School Complex

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Seanica E. Edwards to fill Commercial Ag position

By Michelle Proctor, Senior Information Specialist

The University of Missouri Extension Commercial Agriculture Program will hire Seanica E. Edwards as an Extension Economist beginning July 15. Ms. Edwards will work with both the swine and crops focus teams.

She received her BS in Agricultural Business at Mississippi State University in Starkville, MS. Her MS in Agricultural Economics was completed at the same university. Edwards moved to Columbia from Materia, LA in January, 2009.

Prior to moving to Columbia, Edwards was employed by Pfizer Animal Genetics in Harahan, LA. Her responsibilities included researching cattle genetics and DNA markers, reporting genetic analysis results to Pfizer clients, and assisting clients with analysis interpretation.

She is presently working on a PhD in Agriculture Economics and has been employed as a graduate research assistant in Ag Econ at the University of Missouri. Edwards works under the supervision of Ray Massey, economist, Commercial Ag’s swine and crops team leader.

At MU, Edwards was involved with Increasing Minority Access to Graduate Education (IMAGE) and the National Agri-Marketing Association (NAMA). She participated in case studies and presented selected papers at the American Agricultural Economics Association (AAEA), World Aquaculture Society (WAS), and the Northern Agricultural and resource Economics Association (NAREEA) conferences.

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