UNIVERSITY OF MISSOURI
Extension
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AG NEWS & VIEWS

BARTON, LAWRENCE, JASPER, MCDONALD & NEWTON

July 2014

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NOTICE: We are in the process of updating our newsletter mailing list. If you wish to continue receiving the Ag News & Views newsletter by mail or electronically, please let us know by **June 30, 2014**.

You may call 417-358-2158 or email jasperco@missouri.edu to update your preference.

Sheep and goats in summer heat and humidity

By: Jodie Pennington

Management of sheep and goats in summer heat can be a challenging task for some producers, especially those producers with wool sheep. Heat stress decreases growth rate, reproductive efficiency and profitability. The two most critical factors are to provide access to shade and water at all times for the animals. Extreme heat is stressful to livestock, as well as people. However, the animals do not get the relief that people get when they go to air conditioning. The extreme heat is confounded by the relatively high humidity that we experience here in Missouri.

Signs of heat stress include bunching in the shade if it's available, slobbering, high respiratory rates (panting), high body temperature, and open mouth breathing. In severe cases of heat stress, lack of coordination, trembling, and down animals may be seen. Heat-stressed animals should be moved to a cool, shaded area with good air circulation.

If you see many or severe signs of heat stress, minimize the stress immediately, but handle the animals gently to avoid increasing their stress even more.

Some animals may be affected more than others. Animals with other stresses such as heavy lactation, parasites, and other health problems may be more affected by heat stress. These animals are often the first and the most severely affected in the herd. Prior respiratory disease resulting in lung damage may make animals less able to cope with high humidity and temperature. If an animal's health problems are on-going, administer treatment with extra care. Culling these poorer animals should be considered. Dark animals are generally more susceptible to heat stress than light colored sheep and goats.

What to do: Offer adequate shade and fresh water. Shade will reduce heat loads. Water will help dissipate heat. Water consumption is driven by environmental temperature. Water consumption at 70 degrees F may increase by 50% and by almost 100% at 80 degrees F. Always keep good quality fresh water in front of the sheep and goats. Heat stress can be lessened by providing water via sprinklers and using fans to aid in evaporating the water. Good ventilation is the key to cooling animals—with or without water. Use care with a sprinkler as misting can add to the humidity. With sheep, water can make the wool less able to dissipate heat.

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Test your grain marketing skill without fear of failure!

By: Mark Jenner

Market values in farming don't stay the same for very long. Farm prices are like Missouri weather. We don't have to wait very long for a change. Marketing commodities ahead of harvest usually takes a lot of concentration and carries some big financial risks, but not this summer!

In July, University of Missouri Extension will coordinate the "**Show-Me Market Showdown**." This is a free, educational, online grain marketing game for farmers, ag professionals and other interested people. This game is a simulation that will enable players to enhance their grain marketing knowledge and skills. The **Show-Me Market Showdown** will run from July 14th to September 19th.

The game website is linked to real-time market information allowing players to execute virtual market transactions. The website monitors player market positions, executes trades, and summarizes players' virtual marketing account balances. Although the game is competitive, the main focus of the game is to demonstrate the risks and rewards of alternative marketing strategies and to learn the mechanics of various marketing tools, like futures contracts, options on futures, and forward contracts.

To this end, the MU Extension will offer players guidance and marketing instruction through weekly educational e-mails and a game blog. The e-mails and blog will provide a valuable means of discussion among the game coordinators and participants.

In addition to being fun and educational, participation in the Show-Me Market Showdown is extremely flexible and risk-free. Players can access the game whenever they have time and wherever they have access to the Internet. While all trades in the game utilize real market quotes, players have no risk of financial loss by participating in the game. Funding for this project is provided by the North Central Risk Management Education Center and the USDA, National Institute of Food and Agriculture. As a result, participation in the game is completely free.

For more information and to register on-line: http://extension.missouri.edu/jasper/showmemarket.aspx Once you get to the registration page, just log in. If you have any difficulty, contact me, Mark Jenner, MU ag business extension specialist in Bates County, at 660-679-4167, or by email at jennermw@missouri.edu.

We are excited to offer the farming community a chance to play in our 'Show-Me Market Showdown!' I hope to see you in the game!

There's more to a home's cost than the purchase price

By: Janet LaFon

Summer is often a time when people make changes in where they live due to new jobs, graduation, or just being ready for a new or different home. For most families who buy homes, it is the largest single purchase ever made. But too often, it is a purchase that is handled with haste and inadequate preparation. Many people usually begin looking at homes before they've determined how much they can afford to spend. This makes them extremely vulnerable to all the eye-catching, attractive features that can add to the cost not only in dollars but in time and energy for maintenance.

Where should families begin when thinking about buying a home? The first step is to take a good look at themselves. What are their needs, now and in the future? What is the size of the family, and what are the ages of the family members? For example, a family with growing children will need more of their income for food, clothing and education, and have less money for a house than an individual, a childless couple or a household where the children have left home.

Families should also consider lifestyles, such as how much time is spent at home and if they entertain a lot. Next, they should determine how much they can afford to spend on a house. A very general rule of thumb is to spend between 20 and 35 percent of after-tax income on housing. But be sure to remember all that this has to cover.

First of all, the loan itself requires monthly mortgage payments. Each payment consists of two parts – principal and interest. The principal part of the payment is returning the money borrowed, and the interest part is paying the lender for the use of the money. Typically, a longer term means lower monthly payments. But the overall cost of the loan will be higher because of the interest that will have to be paid.

Families need to remember that there are more costs than just the mortgage. Most are considered operating costs and include taxes, insurance, utilities and maintenance. Also, household furnishings are often overlooked. Some furnishings may come with the home, or some things may be used from the previous residence. But in most cases, some new things will be needed, and in time items will wear out and need to be replaced.

This may sound a little discouraging to the potential home buyer, but it's important to consider all of the facts before getting into a deal that you may regret later.

Missouri's new pasture invader

By: John Hobbs

Spotted knapweed, a noxious weed was first detected in our area seven years ago. The weed seed was most likely purchased in a pasture seed mix or brought into SW Missouri in straw or hay bales. Since that time this noxious weed has expanded more rapidly than could be imagined. Heavy infestations of this weed can now be found concentrated along highway right-a-ways. The plant seed is easily distributed with the movements of equipment and hay. Observations along the roadways confirm significant pockets of these weeds in McDonald County of which some have spread into adjacent pastures. Landowners should be aware of possible infestations if they see the plant in right-a-ways.

Spotted knapweed will be the most aggressive perennial weed to impact hay and pasture fields in Missouri, even more than the musk thistle. This plant can produce as much as 1000 seeds per plant. The western United States has struggled with the weed for many years and it has only recently become a problem for us. The plant is attractive and resembles the bloom of red clover. Currently, the plant is 1-3 feet tall. The problem with this weed is that it can completely take over hay fields and pasture land as indicated by the picture. Livestock avoid eating the plant while it crowds out desirable grasses and legumes. Plant seeds are inadvertently spread through the actions of hay hauling and mowing. It is also likely vehicles venturing into infested areas have contributed to plant distribution. My recommendations are to control the plant as soon as you see it. In small areas around the house you can pull it up and burn it. It may also be spot sprayed utilizing a glyphosate product such as Roundup or one of the many other products containing this active ingredient. For pasture and grass hay fields there are several broadleaf herbicide options depending on knapweed state of maturity and use of the forage. At the current state of knapweed development and according to University studies, Milestone at 5-7 oz/acre or GrazoNext at 2-2.6 pt/acre can provide effective control. Refer to product labels for herbicide use restrictions regarding grazing, hay harvest and replanting. The application of broadleaf herbicides will injure legumes such as clover and alfalfa.

The best knapweed control program is early detection and eradication. Avoid spreading this weed seed on farm machinery. Don't purchase hay containing knapweeds and utilize only certified seed when planting. Manage hayfields and pastures to promote dense grass growth and this will help to reduce knapweed invasion. For more information contact your local University of Missouri Extension office.

Long-neck seed bugs beneficial in strawberries

By: Jill Scheidt

Long-necked seed bugs are a beneficial insect in strawberries. The long-necked seed bug is 3/8 inch long. The head is black, and they appear to have a neck. The wings are brown with yellow etched lines. The legs are slender and yellowish with black knee joints. The antennae have four segments; the first and last segments are black and the middle antennae segments are orange in color.

Long-neck seed bugs are classified in the hemiptera order and the heteroptera suborder, meaning they are a true bug, like aphids, stinkbugs and leaf hoppers. They have piercing, sucking mouthparts, meaning their mouthparts look similar to a beak, like a hummingbird.

They can be found under leaf litter in early spring and in fields and under artificial lights in the summer. Long-necked seed bugs overwinter in woodland and migrate to fields in the spring and summer; they are attracted to lights.

According to Richard Houseman, University of Missouri plant sciences professor, long-neck seed bugs will sometimes feed on strawberry seeds but are rarely a threat needing treatment. They primarily feed on other small insects.

July 8-9, 2014
Ozark Empire Fairgrounds
Springfield

We know your time is valuable. But so is every gallon and pound of manure being applied to your fields. You can't afford to miss the 2014 North American Manure Expo, the only trade show on the continent to focus specifically on manure management and application issues. It could be a real boost to your bank account.

Find additional information at:
www.ManureExpo.org

Small engine maintenance workshop

Monday, August 4 6-9 p.m.
Southwest Research Center, Mt. Vernon

A free workshop with limited seating.

You will learn: basic maintenance on small gas engines, proper blade sharpening techniques and rope starter installation.

For more information or to register contact Randy Garrett. Lincoln University Cooperative Extension, Farm Outreach Worker at 417-850-9391 or email: GarrettS@lincolnU.edu

IT'S FAIR TIME!!!! Check your area for dates and events.

- **Jasper County Youth Fair**
  July 5-12
  Municipal Park, Carthage
  http://extension.missouri.edu/jasper
- **Dade County Youth Fair and Horse Show**
  July 5
  Everton Saddle Club, Everton
  http://extension.missouri.edu/dade
- **Newton County Fair**
  July 9-12
  Newton County Fairgrounds, Neosho
  http://extension.missouri.edu/newton
- **Ozark Empire Fair**
  July 24-August 2 at Springfield
  http://www.ozarkempirefair.com/fair/
- **Missouri State Fair**
  August 7-17 at Sedalia
  http://www.mostatefair.com/home

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Mature trees provide excellent shade (and shelter) and are usually the least-cost alternative. If natural shelter is not available, many sheep and goat producers use wooden or metal huts, plastic calf hutches, and/or movable structures to provide shelter for grazing animals. The shelters should be well ventilated. Simple shade structures can be constructed from shade cloth, mesh fabric, tarps, canvas, or sheet metal. Movable shade structures are best used in intensive rotational grazing systems. All livestock should be able to lie down in the shade structure or area at the same time. Lying down in a cool spot provides additional relief from the heat.

Avoid overworking the animals if they are heat-stressed. Body temperatures of sheep and goats tend to peak in the early evening, declining in the night to reach a low point in the hours after sunrise, then slowly building throughout the day. Work the animals in the early morning, and avoid afternoon/evening work when body temperatures are already high. If possible, under prolonged heat stress conditions, avoid working the animals at all. If at all possible, avoid transporting sheep and goats during periods of heat stress. If transportation can't be delayed, do it during the early morning hours or early evenings to minimize any additional stress.

Other factors to consider with heat stressed animals include decreased fertility, and decreased forage consumption which affects growth. High environmental temperature in the days after breeding has been associated with increased early embryonic loss in most animals. Fertilization appears to take place normally, but embryo development is delayed or altered when environmental temperatures are consistently above 90 degrees F. Even if bucks or rams do not show physical signs of heat stress, semen quality can be compromised.

Semen quality tends to decrease 1 to 2 weeks after an acute, severe heat stress and will persist for an additional 4 to 8 weeks when fertility of the males will be decreased.

Forage quality tends to decrease during hot weather so it is important to provide good quality forage to the heat-stressed animals. Additionally, lower quality feeds often have a high increment or heat of digestion so poor quality feed can add to the heat stress.

Goats tend to tolerate heat better than sheep. Goats with loose skin and floppy ears may be more heat tolerant than other goats. The heat is especially hard on fat animals. Lactating animals are more susceptible to heat stress than dry or non-lactating animals, although there can be differences related to the different levels of production. Any animal with a poor nutritional status (either too fat or skinny) or compromised immunity with health problems will be more susceptible to heat stress.

Wool sheep should be sheared to decrease heat stress. Crossbred hair sheep or hair sheep that do not shed the hair/wool well should also be sheared to reduce heat stress.

In summary, provide adequate water and shade for all sheep and goats during the summer heat.

UNIVERSITY OF MISSOURI Extension 100 YEARS 1914 - 2014

BEEF NEWSLETTER

Production and Management Tips for Beef Producers

Eldon Cole, Livestock Specialist, P.O. Box 388, Mt. Vernon, MO 65712

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June 20, 2014

MAY HAY CONTINUED

Remember last month's letter contained an item about putting hay up in May, especially early May. I don't recall mentioning that on May 1 I visited Steve Jones, Mt. Vernon and he was cutting his fescue. The growth was not very impressive and was just barely starting to head out.

We discussed if he should even be cutting it but we both agreed he might as well as the developing steams and seedheads would only add fiber and not a lot of nutritional value to the hay. By the way, he wasn't worried about also having to plant produce more toxin (ergovaline) in the stem, etc. because the variety of fescue was a novel endophyte-bearing fescue, Max Q.

Steve had the hay tested at a lab, and the hay had 20.1% crude protein and 64% total digestible nutrients (TDN). The relative feed value was 117. Granted the tonnage of hay was not great for the May cut hay. As luck would have it we've had rain and more rain since, so Steve's next cutting should be equally impressive when the lab results are known.

I honestly don't recall seeing a straight grass hay testing any higher than this. It, like alfalfa, could be used for any class of cattle that needed extra energy or protein. It would work great as a creep feed for calves, either this summer or this coming winter for fall born calves. If Steve runs a test on the next cutting I'll share that with you in a future letter.

HAY SHOW ENTRIES FOR OEF

Entries are due for this year's Ozark Empire Fair Hay Show by July 10. Contact your local extension center or call me if you have some hay you've harvested this year that you'd like to enter. The cost is $20 for the OEF. If you'd like, for another $5, your hay could compete at the Missouri State Fair. The latter show is limited to small rectangular bales, but will accept baleage entries. The OEF also prefers small bales but we accept large round-dry packages.

The OEF show does not pay huge premiums but it's sort of the "bragging rights" type of show. However if you have hay to sell you'll get some really nice advertisement from being in the show. The State Fair does have more prizes so we encourage most of the participants to enter both. We'll have special transportation arrangements for taking hay from this area to Sedalia.

STEER FEEDOUT FINALE

Mark your calendar for the 2013-14 Steer Feedout Finale on June 26, 7 pm in Mt. Vernon. The meeting will be in the extension center in the courthouse basement. During the evening we'll review the performance of the 113 steers that went to southwest Iowa last November to be finished and slaughtered. The steers were fed at Gregory Feedlot at Tabor as part of the Tri-County Steer Carcass Futurity. We've used TCSCF since 2001 to feed our Missouri cattle.

I have lots of pictures I took just ahead of the April first-kill date. We'll show these pictures and share performance in the lot and on the rail for the steers. Several of you attended the entry program we had last November at Joplin Regional in conjunction with the Southwest Missouri Cattlemen's meeting. If you were at that event you should try and attend the Finale to see how you did in ranking each group of steers. I have those sheets you turned in so it will be fun and hopefully educational.

The guest speaker will be Mike Kasten, director of the Missouri Quality Beef (QB) by the numbers program. Mike will update us on the QB program and discuss the process required to participate along with the results of some of the groups of cattle that have been in it.

Once again, as with the hay show, we do this Finale and the Feedout for educational purposes and not big prizes. Everyone is welcome to attend. There is no meal, nor charge but for space and printout reasons, give my office a call, 417-466-3102, if you plan to attend.

I'll save the details on the feedout but will share that the overall profit per head for the 113 steers was $141. This was definitely a plus for the consignors as red ink had been

the norm for the last two years. The profit would have even been higher but 4 steers died during the program. The expenses of those 4 were included in the overall costs.

CHECK FOR SPOTTED KNAPWEED

It's blooming time for spotted knapweed. Check your pastures, especially along perimeter fences that are close to either railroads, highway construction sites or where underground cable has been laid for this rather attractive, lavender flowering plant is blooming.

Hopefully, most of you have not been invaded by this weed pest. If you have, do everything you can to stop it in its tracks before it becomes another musk thistle type of problem. It's too late to apply a herbicide now but identify the location so you can do some spraying in late October-early November. That's a great time to treat for thistles.

SUMMER SUPPLEMENTATION

Hot fescue, hot temperatures and high humidity all combine to limit summertime gains on stocker steers and can cause a reduction in pregnancy rates in heifers and cows. Additionally, bulls often experience fertility and libido problems as the summer progresses.

Adding some feed to your cattle's diet in these stressful situations almost always ends up as a win-win deal. The amount and type of feed is subject to debate sometimes but the Southeast Kansas Field Day this spring revealed the results of a five year study that involved feeding 500 pound steers during the nearly 200-day grazing period on hot fescue or on low endophyte or novel fescue.

The greatest gain response, 97%, was seen on the high endophyte fescue with steers fed 0.8% of their body weight in distillers grains throughout the trial. Steers on the novel fescues or the low-endophyte varieties still showed a 30 to 40% boost in gains due to the distillers. The distillers supplemented steers averaged 2.25 pounds daily gain while non-supplemented cattle posted 1.51 pounds per day gain.

The non-supplemented steers required 1.25 acres per steer compared to 1 acre per steer rate for supplemented groups.

I'm sure with the price of cattle this year a little feed, around that 0.8% of body weight range, will pencil out favorably for you. The by-product feeds like distillers, corn gluten feed and soy hulls are especially good supplements because of their highly digestible fiber content.

Remember, the better the quality of pasture or forage, the lower the response will be to supplement. It's also worth your time to check out the cost and trouble of including an ionophore in your supplement. That could give you an added boost on stocker steers and heifers.

HEIFER SURVEY RESULTS

Following each Show-Me-Select Heifer Sale we send a survey to the buyers to find out how the heifers did at calving. Our November sale results are pretty much in, with 152 heifers out of 233 sold accounted for. That's 65% which is much better than usual.

Assistance was given to 9 of the 152 heifers that reports were made on. That's 5.9% which is a little better than we typically find for January through April births. For several years our assist rate was right at 10%. The combination of calving ease EPDs and pelvic measuring helps reduce calving assists.

I'm proud of the accuracy we're getting from veterinarians on projected calving dates. Of the 152 births, 142 (93.4%) were born within 18 days of what the early preg test forecast. This accuracy is achieved by more AI breeding, the use of ultrasound and doing ether the ultrasound or palpation before 90 days into the pregnancy. Buyers really appreciate this type of accuracy compared to what they get from some sales where females are tagged based on first, second or third stage.

Of course, I remember years ago when at the local sale barn a man would "bump" a cow as she circled the ring. Then he'd proudly announce, yes she's bred or no she's not. I'd have been interested in knowing how accurate he was but I never did a follow up. Yes, we've come a long way.

BEEF CARCASS EVALUATION

The Lawrence County 4-H Steer Project will be held at Cloud's Meats, Carthage on July 3, 6:30 pm Kate Shircliff, University of Missouri grad student and meats judging team coach will be down to grade the carcasses and explain what's involved in carcass evaluation.

We have four steers weighing from 900 to 1300 pounds in the program this year. Anyone is welcome to attend. Andy Cloud will break down one of the halves to show how thats done. Hope you can make it.