



Northeast Missouri Ag Connection

Your local link to MU for ag extension and research information
<http://agebb.missouri.edu/agconnection>

For more information
please contact your
MU Extension Center:

Adair
(660) 665-9866

Audrain
(573) 581-3231

Boone
(573) 445-9792

Callaway
(573) 642-0755

Chariton
(660) 288-3239

Clark
(660) 727-3339

Howard
(660) 248-2272

Knox
(660) 397-2179

Lewis
(573) 767-5273

Linn
(660) 895-5123

Macon
(660) 385-2173

Marion
(573) 769-2177

Monroe
(660) 327-4158

Pike
(573) 324-5464

Putnam
(660) 947-2705

Osage
(573) 897-3648

Ralls
(573) 985-3911

Randolph
(660) 269-9656

Schuyler
(660) 457-3469

Scotland
(660) 465-7255

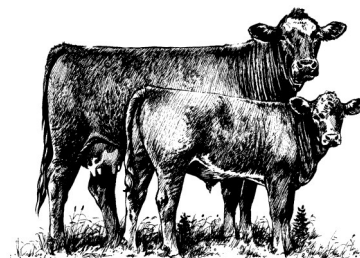
Shelby
(573) 633-2640

Sullivan
(660) 265-4541

Winter Management for the Cow Herd

As temperatures continue to drop winter management practices become more important for the beef cow herd. For many producers in northeast Missouri calving season is just around the corner and keeping cows in the correct body condition score (BCS; 5-6) will benefit productivity.

With declining temperatures the energy requirement for animal maintenance and production increase, therefore taking steps to minimize those affects is important. Wind breaks can greatly impact productivity by providing shelter from the wind and winter elements. Wind breaks can cause snow to drift in a desired direction instead of covering desirable forage and allowing for greater mobility. Planting multiple rows of trees 50 to 100 feet up wind will provide enough distance to slow wind and shift drifting in a preferable direction. Portable calf shelters can have extended walls providing a wind break for the herd and can be moved to other locations.



Bedding is very important in reducing the effect of cold stress on cattle and provides a dry clean place for calving. Do not forget to provide bedding for bulls to avoid breeding soundness issues caused by frostbitten testicles.

Cows starting the winter in good condition, BCS 5-6, will have a better chance of making it through winter in good condition. Cold stressed cattle could have increased feed consumption as much as 5-25% due to increased energy requirements. Feeds should be highly digestible and of good quality. If stored hay or stockpiled forage is of lower quality, consider supplementing with a concentrate.

Other considerations for cold weather management include:

- Winter feeding resources can be optimized by sorting cows into groups based on body condition score and age accounting for differing nutritional requirements
- Digestion produces heat therefore feeding cattle later in the day pushes heat production into the night
- Make sure cattle have access to clean water, preferably at 40 degrees F. A 1,100 lb cow will consume 6 gallons per day

Source: *Daniel Mallory, Livestock Specialist*

Tips For Protecting Your Plants From Winter's Chill and Getting Through the Holiday Season

The following tips will help care for indoor plants during the holiday season and ensure outdoor plants are protected from winter's fury.

- Move houseplants back from cold, icy windows to prevent chilling injury. Chilling injury will show itself as brown areas on the tips and margins of leaves
- Poinsettias are a popular holiday plant which comes in many colors, with red being the traditional color. Protect newly purchased plants for the trip home as exposure to freezing temperatures for even a few moments may cause injury. Basic care for poinsettias includes: sun or bright light for at least half the day; keep plants away from cold drafts and heat sources; keep the soil moist, but not soggy. Soggy soil can cause root rot and kill the plant. Most poinsettias come with a foil wrap around the pot. Be sure to punch holes in the foil to prevent soggy soil conditions. Discard any drainage
- Water houseplants with tepid water, not cold. Cold water may shock your plants
- Holly plants may be pruned now and the trimmings used in holiday decorations. Only female holly trees bear the red berries. A male tree must be growing nearby for pollination, if fruits are desired
- Make a fresh cut at the base of the Christmas tree for better water uptake which helps the tree retain needles longer. Keep the base of the trunk standing in water
- Wrap young trees with tree wrap for winter protection. Young, thin-barked trees are susceptible to Southwest injury, which causes cracks on the southwest side of a tree. Mesh wire fencing can be placed around trees to protect from deer
- Mulch strawberry beds. Place a 3-4 inch layer of loose straw over plants
- Apply mulches to bulbs, perennials and other plants once the ground freezes
- Clean and oil garden tools before storing for winter



- Power equipment should be winterized before storage. Change the oil and lubricate moving parts. Drain fuel systems or mix a gas stabilizing additive into the tank
- Place bird feeders in the landscape and keep them filled, especially during heavy snow cover
- Brush heavy snow from the branches of young trees and shrubs in the landscape to minimize limb damage

Source: *Jennifer Schutter, Horticulture Specialist*

Artificial Insemination in Swine

Hog and pig farming is a \$22.5 billion industry, up 25% since 2007. In 2012, independent growers operated 85% of hog and pig farms, accounting for 46% of the 199.1 million hogs and pigs sold. Missouri ranks 7th in the nation for hogs and pigs sold and are the number four agricultural product within Missouri.

Artificial insemination is a well-established technique used on commercial swine farms but may be a new tool for smaller hog producers with less than 10 breeding females. Artificial insemination can be successful on any size farm with proper management.

Swine estrous cycle: The pig estrous cycle averages 21 days but can range from 17-25 days. The 2-3 days the female is receptive to the male and will stand to be mounted is referred to as standing heat and termed estrus.

Estrus (heat) detection: The importance of accurate heat detection cannot be overemphasized and is vital to the success of each breeding. Heat detection is more successful when checking two times per day at 12 hour intervals. If one time per day detection is chosen, checking should be done in the morning before feeding or at least one hour following feeding. Boar exposure is essential to initiate the standing response and is stimulated by exposure to the boar's pheromones released from the submaxillary salivary glands. These glands mature around 10 months of age. Synthetic products are available if a boar is not present on the farm. In the presence of a boar or with use of a synthetic product, females should stand for applied pressure to the back. Stimulate or rub the flank, back, and neck of the female during detection and while inseminating. Other signs of heat include: mounting or attempting to ride other females, erect "popping" ears,

red and swollen vulva, mucous discharge, and increased vocalization and activity. Females should be inseminated once daily each day they stand. If heat checking two times per day, inseminate gilts 12 hours after standing heat is detected and 24 hours for sows. If heat detection is done one time per day, inseminate at time of detection and every day she continues to stand.

Inseminating the female:

- Evaluate sperm cells for motility and morphology prior to inseminating
- Clean the vulva (external portion of reproductive tract)
- Lubricate the tip of catheter with non-spermicidal lubricant (try to avoid the opening)
- Gently guide catheter with tip pointed upward through vulva, vagina and into the cervix
- Rotate the rod **counterclockwise** into cervix
- When locked in, there should be some resistance when the rod is gently pulled backwards
- Attach semen; gently squeeze to start the flow- the flow should continue with the assistance of uterine contractions
 - ◊ Takes at least 3 minutes
 - ◊ Gilts will take longer than sows
 - ◊ May need to cut the bag or bottle of semen to release the vacuum build up
- Remove the catheter by rotating clockwise while gently pulling with the end of rod towards the floor
- Keep the female calm- distress may still disrupt semen transport and fertilization
 - ◊ If moving or regrouping is necessary, do so within 3-5 days after mating or wait until after 25 days of mating

For more information contact your livestock specialist or access MU Guide G2312 online (<http://extension.missouri.edu/p/G2312>) or through your local extension office.

Source: *Heather Smith, Livestock Specialist*

Changes in the 2014 Tax Year

There are several changes and resources producers need to be aware of for the 2014 tax year. The following are a few highlights:

Farm Repairs: The IRS has made some clarification as to what is a repair. A **repair** is defined as: “to restore to a sound state and to keep the property in operating

condition during its useful life.” Repairs are generally expensed in the year purchased. An **improvement** is defined as: “something that results in the betterment, prolonging the life, restoration or adaptation to a different use of a unit of property.” Improvements must be capitalized over the useful life of the asset. For example, an engine overhaul would be viewed as prolonging the life and thus should be capitalized. Anything that includes both types must be split and handled accordingly. For example, a farmer purchases a grain truck with a broken light. He fixes the light and paints the farm logo on the cab of the truck. The light is a repair and expensed, while the logo painting is considered an improvement and must be capitalized. Businesses {farmers included} can adopt “safe harbor” rules for repairs of up to \$5,000 if they submit a qualified financial statement with their income tax return for 2014.

Veterinarians: An IRS chief counsel ruling determined that veterinarians are providing medical and healthcare services, therefore, veterinarians {including incorporated ones} are subject to the 1099 rules. If a veterinarian is paid over \$600 in a tax year for services {medicines and supplies are separate} then a 1099 MISC form must be sent to them by January 31st.

Section 179 Expense: The allowable amount expensed under Section 179 has been lowered to \$25,000 at this time, a major drop from 2013 when it was \$500,000. Section 179 has been a tool for managing taxable income. This is a great asset for farmers since income is typically not known until later in the year. Another change is the additional 1st year depreciation which has helped producers put up hay and machinery sheds has expired. Many tax professionals expect the new Congress to readdress both of these issues in the next two months; therefore, it is important to keep updated.

Income tax resources: The University of Missouri Extension Office in your county has several tax resources. Some of these resources will be available by the end of December. These resources include:

- Publication 225 – Farmer’s Tax Guide
- FM 6701 – Missouri Farm Tax Record Book
- 1099 forms (cannot be downloaded from Internet and available in some counties)
- Federal and State Income tax forms

Source: *Joe Koenen, Ag Business Specialist*

Upcoming Events in Northeast Missouri

Farm Bill Meetings to be held in December through January

at Various Locations throughout Northeast Missouri

for more information and details contact:

Darla Campbell, phone: 660-457-3426, email: campbell@missouri.edu

Karisha Devlin, phone: 660-397-2179, email: devlink@missouri.edu

Joe Koenen, phone: 660-947-2990, email: koenenj@missouri.edu

Mary Sobba, phone: 573-581-3231, email: sobbam@missouri.edu



Missouri Crop Management Conference

December 17 & 18, 2014

Holiday Inn Select - Columbia, MO 65203

website: <http://plantsci.missouri.edu/cmc/>



Computers on the Farm Conference

January 9 & 10, 2014

Tan-Tar-A Resort, Osage Beach, MO

website: <http://agebb.missouri.edu/cotf/>

