



## Northeast Missouri

# Ag Connection

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### **Cow and Calf Management Considerations**

The summer of 2014 will be remembered by most cattlemen as one of the best growing seasons in recent memory shaped by moderate temperatures and regular rainfall. This summer has provided abundant forage supplies and coupled with the favorable price of calves going into fall, 2014 will be one for the record books.

As fall arrives, getting calves started off in a good post-weaning program is economically important. Every extra pound gained by calves before marketing should have a large payback this year. Having a good vaccination health program plan can help reduce sickness and improve treatment response for sick calves. A good health program will increase the overall performance of calves during weaning. A sound nutritional program can support the vaccination program by improving immune response. Weaned calves have a relatively low intake compared to their mature dams, consequently providing a nutrient dense feed properly balanced for energy and protein is key to a good start. Creep feeding, even for a short time prior to weaning, will acclimate calves to eating dry feeds and should make the transition to weaning easier. Feedstuffs should be palatable with minimal fines and dust. Total weaning rations should be 14%-16% crude protein. There are many good commercial supplements achieving the crude protein requirement. When transitioning calves from one feedstuff to another, i.e. from a commercial supplement to commodity, the transition period should be slow to avoid digestive upset and feed refusal.

When considering any supplemental feed always remember to do price comparisons per unit of desired nutrient. For the last few years when the price of corn was high every effort was used to minimize and/or substitute the use of it in a ration to cut expense. However this year, corn will likely be the cheapest ingredient. Questions have shifted from using everything but corn to how much corn can I feed? Supplementing corn to forage fed cattle does not come without a tradeoff. In the rumen, highly digestible carbohydrates, such as corn, are fermented relatively rapidly and can cause a reduction in the rumen pH. This is a problem as the bacteria responsible for breaking down fiber, such as forage, prefer a more neutral pH; thus when more corn is present in the rumen the pH becomes more acidic and fiber digestion can be compromised. Early research indicated forage utilization may be depressed by as much as 10 to 30% as the amount of corn increases. Research further suggests addition of corn in a fiber-based diet greater than 0.25% of body weight can result in depressed fiber digestibility. The take-home point is to evaluate

all components of the diet to reach what is best for the animal and the bank account.

Weaning is an extremely stressful time on calves being removed from their dams and a comfortable herd social structure. Continuing research has been published on ways to reduce stress through proper handling and the positive impacts on calf health and gain. This may be something to consider if debating between bunk feeding or using chemical restrictive intake technology in a self-feeder. Daily interaction through hand feeding can result in better handling calves versus those being self-fed. Handling characteristics do not necessarily improve over the lifespan of the animal which may be important for those keeping replacement heifers. Fence-line weaning calves has proven to be a good approach to gradually transitioning from social contact with the dam to being independent and part of a new herd. Ideally, fence-line weaning should be in an environment allowing both cows and calves to spread out along the fence, has minimal dust, and provides calves familiar feed and water near the fence.

Finally, do not overlook forage analysis as it is critical part to any management program. Whether it is baled or still growing, forage provides a large portion of nutrients to growing calves. Your local University of Missouri Extension livestock specialist can be a resource for forage testing and analysis information.

### **Cow herd management**

For a spring calving herd, after the calves are weaned in the fall, the cow becomes fairly self-sufficient. This is the time of year her nutritional demand is at its lowest. Stockpiled grass or crop residues can carry them deep into winter. Grazing crop aftermath can reduce forage costs by 50% or more. Strip grazing or small allotments can increase utilization of these feed sources.

Obtaining a forage test to analyze quality on any baled or harvested forages is one management step producers can use to save money. Supplementing cows when not needed is expensive; but not supplementing cows when needed is also expensive.

Fall is a great time to conduct a pregnancy check, weigh, and condition score breeding animals. It is also a good time of year to control for parasites, check and replace missing ID's, maintain yearly vaccinations,

and evaluate options for those cows needing additional feed resources. Cull any open, old, poor producing, or unsound cows. Keeping records regarding cows with udder problems or poor disposition can also be helpful in making culling decisions.

Four guidelines for heifer retainment:

1. Age. Older heifers breed earlier.
2. Retain daughters of above-average-producing cows.
3. Proper frame size to complement the desired mature size and weight.
4. Structural correctness. Avoid breeding udder, feet and leg problems.

**Source:** Zac Irwin, livestock specialist

## **Fall Tasks in the Lawn and Garden**

Fall is a great time of the year for adding trees and shrubs to the landscape. The warm soil and cool air allows for good root development. Fall planting also allows plants to get a head start in the spring before the most stressful time of the year which is summer.

September is the best time to renovate and reseed a lawn. October 15 is about the latest for reseeding a lawn in northeast Missouri in order for it to have time for establishment before cold weather. Fall is the best time of the year to feed existing lawns. Fescue lawns can be fertilized in mid to late September and again in November. Use a fertilizer high in nitrogen (20%-30%), which is the first number on the bag. In November, a final fertilizer application may be applied to further promote root growth and thicken stands.

After the garden has been killed by a hard frost, clear off dead plants by burning. If plants were not diseased consider composting. Vegetable garden clean-up is important to reduce the number of over wintering insects and diseases. Eradication of residues from tomato plants or other vegetation is important to reduce diseases for next year. Fall tillage of annual beds and vegetable gardens may expose potential insect larvae to birds and other critters of prey. This is also an excellent time to incorporate compost, lime and fertilizer if your soil test shows a need.

Fall is the time to plant spring flowering bulbs like tulips and daffodils. They are available in garden

centers throughout the fall. Keep in mind some bulbs are available in limited quantities especially for the new and unusual varieties. The best time to plant bulbs is in late September and October. When planting bulbs, dig a hole 6 to 8 inches in diameter and put 5 to 7 bulbs in each hole. Planting them in a cluster will create a "bouquet" look in the spring. Plant the bulbs at different depths in the same hole can extend the time of bloom. For example, in a hole 8" deep place 3 or 4 bulbs at the 8" depth cover with soil and then plant 3 or 4 more at 6" deep. The bulbs planted at the 8" depth will start flowering when the ones at 6" are almost finished.

Pumpkin harvest should be in full swing in October. Pumpkins can be used as jack-o-lanterns in October and in cornucopias in November. Pie pumpkins make delicious pies and other desserts. It takes about one pound of raw, untrimmed pumpkin to get one cup of pumpkin puree. Eighty percent of the pumpkin supply in the United States is available in October, and the Connecticut field variety is the traditional American pumpkin. Illinois, Ohio, Pennsylvania and California are the top pumpkin production states. Pumpkins originated in Central America and are 90 percent water. They are members of the vine crops family called cucurbits. Their flowers are edible, and range in size from less than a pound to over 1,000 pounds. Pumpkins should never be carried by their stems to avoid breaking. Toothpicks may be used to reattach a broken stem. Look for a pumpkin with 1 to 2 inches of stem. If the stem is cut too short the pumpkin will decay quickly. Avoid pumpkins with blemishes and soft spots. Care should be taken not to bruise your pumpkin during transport or storage.

For more information, or information on any horticulture topic, contact Jennifer Schutter at the Adair County Extension Center at 660-665-9866.

**Source:** Jennifer Schutter, horticulture specialist

## **Reducing Energy in Grain Drying Operations—Part 2**

### **Management during harvest and drying:**

Grain moisture during harvest and drying should be checked regularly. Be sure you don't over-dry the grain. If you have automatic controls, check them regularly. Once you start drying in the bin, keep the fans running continuously regardless of the weather

until the entire mass of grain in the bin is dried. However, if natural air drying and humidity is high, such as raining for a week, shut fans off and resume when air dries out. Dry the grain to the following moisture levels:

	<b>Store over winter/6 months</b>	<b>Store more than 6 months</b>
<b>Corn</b>	15	13
<b>Soybean</b>	13	11
<b>Grain Sorghum</b>	15	13
<b>Wheat</b>	13	11

### **Management of grain during storage:**

After grain is dried, it should be cooled in the fall to about 40 degrees. This will avoid moisture migration in the bin due to temperature differences between the grain in the bin and the outside air temperatures. Check the grain regularly throughout the winter by running the fans to check for musty odors. Take the temperature of the grain and record it to observe any changes in the temperature. Grain should be warmed in the spring by turning on the fans and blowing warm air through the grain. When the grain is cooled or warmed, care should be taken to be sure the cooling or warming front moves completely through the grain.

**Source:** Don Day, *MU Extension Associate Energy*

## **Soybean Sudden Death Syndrome**

This year a wet, cool spring followed by the second-coolest July on record created conditions favorable for soybean sudden death syndrome (SDS) in much of Missouri. This article will go to press before yield losses attributable to SDS can be estimated from harvest data. SDS is caused by a strain of the fungus *Fusarium virguliforme*. It may appear several weeks before flowering but is more pronounced after flowering. Foliage symptoms begin as scattered yellow blotches in the interveinal leaf tissue. These yellow blotches may increase in size and merge to affect larger areas of leaf tissue. Yellow areas may turn brown but veins remain green giving the leaves a striking appearance. Infected plants may wilt and die prematurely. Severely affected leaflets may drop off the plant leaving the petiole attached or may curl upward and remain attached to the plant. Root systems may show deterioration and discoloration of

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lateral roots and taproot. When split open, internal tissues of the taproot and stem may show a light gray to light brown discoloration. SDS is not the only pathogen capable of causing yellowing leaves and poor looking spots in soybean fields late in the season. When disease symptoms are observed during the growing season consider submitting a plant sample to a disease diagnostic clinic to confirm the cause. The University of Missouri plant diagnostic clinic web address is <http://plantclinic.missouri.edu/>.

SDS management options are limited. Although soybean varieties less sensitive to SDS have been developed, there are no highly resistant varieties at this time. Fungicides applied in furrow during planting or as seed treatments are being improved, but research trials so far have shown only limited, variable control with these products. Fungicides applied to foliage have no effect on SDS, presumably because the fungal infection is restricted to root systems and fungicides typically do not move downward in the plant to reach the site of infection. There are several management practices that may reduce the risk of SDS damage; plant varieties which have performed well where SDS has been a problem, improve drainage in poorly drained fields, avoid compaction, stagger planting dates, delay planting until soils are warm and dry, avoid continuous crop soybean, maintain good crop vigor, avoid crop stress including stress from soybean cyst nematode, and harvest fields with SDS in a timely fashion. Keep records of SDS areas in fields in order to estimate yield loss attributable to SDS and determine the most profitable management response. Portions of this article are from a newsletter article titled "Late Season Soybean Diseases" by University of Missouri Plant Pathologist Dr. Laura Sweets and Purdue Extension publication BP-58-W "Diseases of Soybean – Sudden Death Syndrome".

**Source:** Max Glover, agronomy specialist

