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## Economics of Dehorning Calves

Dehorned calves impact not only the quality of the end-product but also the value of feeder cattle. Though it may seem an easy part of the management process, dehorning calves is often overlooked. Implementation of education related to added value has been positively received as current trends are dictating more cattle are coming to market without horns. Two decades ago, the National Animal Health Monitoring System reported a 2.1% reduction in horned marketed cattle over the previous five years. To date, this trend continues with a reduction in the number of horned cattle marketed.

Current data from the University of Arkansas shows 86% of that state's feeder cattle arrive to market hornless. The Arkansas data also showed a \$4 per hundred weight (cwt) increase for polled cattle whereas data from Kansas showed a \$2.18 per cwt reduction for horned cattle. In Missouri value-added sales, higher premiums are gained when dehorning requirements are met during preconditioning programs. This same research also shows that Missouri cattle producers receive higher premiums for polled versus dehorned cattle.

Implementation of polled genetics has played a large role in the reduction of horned cattle for Northeast Missouri's cattle market. However, as genetic improvement can also incorporate horned cattle for hybrid vigor, cattle with horns will always exist. There will constantly be cattle of unknown pedigree utilized for breeding; therefore, horned genetics could be a possibility. The economic impact of incorporating polled genetics and dehorning are many. Price docking for horned cattle exists to justify the loss of value. An evaluation of 16 packing houses 15 years ago reported that 22.3% of cattle processed still had horns falling short of the goal of 5%.

Horned cattle require more space in transit, the feed bunk and at the feedlot. They tend to be more aggressive and cause more injuries. This is not just relegated to feeder cattle. The price significance of horned versus non-horned cattle can add up during the duration of the animal's lifespan. A National Non-Fed Beef Quality Audit disclosed a higher frequency of horns in cull cattle, including bulls, when compared to fed cattle. It also showed twice as many bruises in horned cattle when compared to hornless cattle. This equated to a \$12 loss per head for each animal culled. Thus, even for replacement females, it pays to dehorn.

Price exchanges from purchaser to seller also see an impact on profits contributed to horned cattle. Sold feeder calves requiring dehorning have shown a reduced rate of gain and an increase in sickness. Dehorning related to these calves typically comes at a time when cattle stress is high due to weaning, marketing and transportation. This increases costs for buyers as these losses must be spread across other purchases thus reducing profits for producers. Feedlot research shows cattle dehorned at least four weeks prior to shipping had a reduced rate of sickness and death.

Cattle bruising creates a \$10 million loss to the industry each year. Packing plants are forced to trim bruised carcasses and thus discard profits. This loss of product also contributes to less profit for beef producers. Data has shown that polled cattle penned

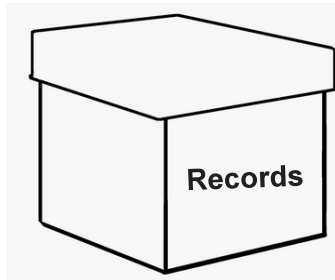
with horned cattle exhibit twice as much bruising. To compensate for this, most feedlots will either explicitly state no horns on buyer orders or require heavy docking for purchasing horned cattle. This in turn reduces profits for beef producers.

Source: *Jason C. Morris, ag business specialist*



## How Long to Keep Records

This time of year farmers are boxing up last year's records for storage and setting up files for the current year. How long is it necessary to keep records? It depends why you are keeping the records. The information below is from the [Internal Revenue Service \(IRS\) Farmer's Tax Guide Publication 225](#).



Keep records as long as they may be needed for the administration of any provision of the Internal Revenue Code. Keep records that support an item of income or a deduction appearing on a return until the period of limitations for the return runs out. A period of limitations is the period of time after which no legal action can be brought. Generally, keep records *at least three years* from when your tax return was due or filed or within two years of the date the tax was paid, whichever is later.

There are certain records which must be kept for a longer period of time including:

**Employment taxes** - If there are employees, keep all employment tax records for at least four years after the date the tax becomes due or is paid, whichever is later.

**Assets** - Keep records relating to property (land, machinery, livestock, building, etc.) until the period of limitations expires for the year in which the owner disposes of the property in a taxable disposition. It is important to keep these records to figure any depreciation, amortization, or depletion deduction and to figure the owner's basis for computing gain or (loss) when selling or otherwise disposing of the property.

The taxpayer(s) may need to keep records relating to the basis of property longer than the period of limitation. Keep those records as long as they are important in figuring the basis of the original or replacement property. Generally, this means as long as you own the property and, after you dispose of it, for the period of limitations that applies to you. For example, if you received property in a nontaxable exchange, you must

keep the records for the old property, as well as for the new property, until the period of limitations expires for the year in which you dispose of the new property in a taxable disposition.

**Records for nontax purposes** - When records are no longer needed for tax purposes, do not discard them until you check to see if you have to keep them longer for other purposes. For example, insurance companies or creditors may require keeping them longer than the IRS.

**Note** - There are other opinions and suggestions on how long to keep records as well. Some professional tax preparers suggest keeping tax records longer than the IRS guidelines above. A common length of time for tax returns (and all supporting documentation used to prepare them) is at least seven years from the date they were filed. If a person is audited the IRS can go back three years, but they could request records for an additional four years.

If you are uncertain to keep or toss, seek additional advice from others such as your tax professional or an MU Extension ag business specialist.

Source: *Mary Sobba, ag business specialist*



## Spring Pasture Management

### *Soil testing*

Periodic soil testing is important for pasture management. A soil test analyzes pH, nutrient levels, organic matter and other soil properties. It provides valuable information about nutrient availability and how much fertilizer needs to be applied to the pasture. A soil sample can be collected anytime during the year, but it is recommended to collect in fall or early spring in Missouri so that plans can be made for fertilizer or lime application. It is recommended to test soil every three to five years.

Collecting a representative soil sample is an important step for developing a nutrient management plan. When collecting a soil sample, a pasture should be divided into areas which have similar soil characteristics and managed in similar ways. Generally, the soil sample area should not exceed 20 acres. When soil sampling, travel across the entire sampling area in a zigzag pattern and collect 15 -20 cores from random spots. Optimum sampling depth is six to seven inches. Avoid collecting soil samples near feeding areas, water sources, shade trees, manure piles, urine spots and nearby gravel roads. These areas can skew the soil test report.

### *Legume inter-seeding*

Another important component of spring pasture management is inter-seeding legumes into grass pasture. Legumes improve forage yield and quality of pasture.

They are higher in quality than grasses because they have a higher leaf than stem ratio making them higher in crude protein and lower in neutral detergent fiber.

Red clover, white clover and annual lespedeza are well adapted forage legumes in Missouri. They can be no-till drilled in March. Four to six pounds of red clover or one half to two pounds of white clover or six to eight pounds of annual lespedeza seed per acre is recommended for drilling. These legumes make better year-round grazing, since peak growth is in late spring and summer when cool-season grasses do not grow well.

The most common grass in Missouri pastures is 'Kentucky-31' tall fescue. It is popular because it tolerates poor soil and harsh climatic conditions well and has a long growing season. However, it is infected with a fungal endophyte that is toxic to animals and cause fescue toxicosis. Inter-seeding legumes into a fescue pasture will dilute the consumption of toxic fescue and reduces the impact.

Soil testing is recommended before seeding legumes to ensure soil pH and nutrient levels are adequate. Clover require a pH of 6 while lespedeza can tolerate a 5.5 pH. If soil pH is low, lespedeza may be a better choice than clover until lime applications have time to raise soil pH.

Stand management is key to legume persistence in pasture. New legume plants need time to grow without competition from grass canopies. To promote legume growth in the first year, do not apply nitrogen fertilizer in spring. Nitrogen fertilizer causes established grasses to grow rapidly and smother legume seedlings. Wait until fall when legume root systems are strong and apply only 20-30 pounds of nitrogen. Phosphorous is a key nutrient for legume stand establishment and should be applied early in the growing season.

Carefully graze young legume plants. A four- to five-week rest period after grazing is recommended. Adopting a management intensive grazing system prevents overgrazing of newly seeded legume pastures.

### ***Grazing management***

Grazing management is another important component of pasture management. In a continuous grazing system, animals are allowed to graze continuously on a specific unit of land throughout the entire or part of the grazing season. Although there is less cost for fencing and water and a lower management requirement, forage utilization is very low, about 30 to 35%. Due to continuous and selective grazing, persistence of desirable plant species such as legumes is reduced. Another disadvantage of this system is that animal manure is not distributed evenly in the field. Livestock trample and defecate on ungrazed pasture and waste forage.

Management intensive grazing system minimize the issues of continuous grazing. In this system, animals are

allowed to graze only a small portion of the pasture at a time, called a paddock. Generally, this requires a perimeter fence and may utilize temporary fencing to create smaller paddocks. It is a more structured grazing system where animals are moved frequently from one paddock to the next. This provides rest periods for plants while other paddocks are grazed which improves plant persistence. Pasture utilization can be improved to nearly 75 percent when animals are moved daily. Manure and urine are more uniformly distributed in the field.

**Source:** *Dhruba Dhakal, agronomy specialist*

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## **Preparing the Garden for Spring**

As the days get longer and the weather starts to warm, gardeners are anxious to get back into the garden. One of the first things to do in the garden and landscape, is winter cleanup. Rake the lawn to get rid of dead growth, leaves, twigs and other debris. This lets light and air into the soil, encouraging the grass to grow. Rake out and cleanup garden beds to remove leaves and dead plants. Doing so will help dry out and warm the soil faster allowing for early plantings of flowers like pansies, snapdragons or vegetables like lettuce and spinach.

Wraps need to be taken off trees that were wrapped in the fall for winter protection. Leaving it on can damage the trunk by allowing insects and rain to get inside. As weeds start to grow in the garden, remove while roots are still shallow and easy to pull. Chickweed and henbit are two of the earliest weeds to emerge, often in late February and early March. Pre-emergent weed control like PREEN™ containing the active ingredient, trifluralin, can be broadcast over garden beds to prevent germination of these early weeds. Do not plant seeds in these beds for at least six weeks, as trifluralin kills all seeds.

Prune fruit trees and small fruit plants like grapevines, blueberry shrubs and brambles now. Pruning should be completed in northeast Missouri by late March. Apply dormant oil spray to fruit trees, magnolias, crabapples and shrubs such as euonymus to control scale insects and other overwintering pests. Apply dormant oil when the buds are swelling but the leaves haven't opened yet. Apply when temperatures are between 40-70 degrees Fahrenheit. Apply a fungicide containing chlorothalonil to peach trees before bud swell to prevent Peach Leaf Curl.

Do not be in a hurry to remove winter mulch or cut back perennials until temperatures are reliably warm. Roses uncovered too early can be damaged from the cold. Strawberry plants may experience a crop loss due to freezing temperatures. Typically, early to mid-April is when these plants should be uncovered. If freeze and

thaw cycles over the winter heaved plants out of the ground, replant them when the ground thaws and the temperatures stay above freezing.

Resist the urge to start working the garden or flower beds too early. Soil structure can be damaged from working wet soil. When a handful of soil is picked up, it should fall apart, not stick together like glue. When gardens beds have dried out, start working them by adding compost like decomposed manure, in preparation for planting. In late March, seeds of cool-season vegetable crops like lettuce, spinach, collards, cilantro, kale, peas and radish can be planted. Because March can be wet, raised beds and containers work well for these early crops, that prefer cool weather and grow best when temperatures are below 70 degrees. Most radishes will be ready for harvest in 30-35 days. Cruciferous vegetables like cabbage, broccoli, cauliflower, kohlrabi and Brussels sprouts should also be planted at this time. Broccoli and cauliflower planted too late in the spring will not produce. If planted in late March or the first week of April, expect to harvest a nice head of broccoli

and cauliflower by late May or the first week of June.

Now is a good time to sharpen mower blades and give the mower and tiller a tune-up. Start preparing other tools for planting. Tighten loose screws, remove rust, and apply oil to wood handles for protection from the elements. Taking proper care of tools will make them last a long time.

**Source:** *Jennifer Schutter, horticulture specialist*

## National Ag Day

March 23, 2021