



# BEEF CATTLE TIME

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## Spring Management Tips

*Warren Gill, Professor  
Animal Science*

The spring months are good for working cattle, and mid- to late-May is a great time to cut hay.

The best cool-season grass (fescue, orchardgrass) hay is cut in the boot or early seed stages, which usually occur in May. Spend the first week or two of May getting hay equipment in tip-top condition. Start watching weather patterns during the second week to be certain not to miss the two- to three-day weather window that usually occurs in mid to late May.

Since much of May will probably be too rainy to cut hay, you may want to work your herd. One of the first things that comes to mind is fly control. A number of options are available. Insecticide-impregnated fly tags have been widely used in recent years with increasingly variable (good and poor) results. Producers should be prepared to supplement ear tags with other methods. Dust bags, face rubbers and backrubbers with insecticide products will provide the best results if cattle are forced to use them in order to get to the salt-mineral or water. Other methods for controlling flies include feed additives, insecticide bolus and sprays. Always follow label directions for use of these or any animal health products.

Internal parasites will also need attention. Prevent worm losses by treating the herd with suitable deworming products. Discuss your deworming program with your veterinarian, county Extension agent or animal health product suppliers.

Castrate the remaining male calves that are not to be saved for breeding. Some producers prefer to wait until a number of calves are available. This is suitable, as long as calves are no older than three months of age.

Spring is a good time for vaccinations. Discuss this with your veterinarian. The best time to vaccinate cows is when they are open, prior to the breeding season. Options often recommended for the cow herd include Lepto, Vibrio, Pinkeye, IBR and PI3. Options

often recommended for calves include IBR, BVD, PI3, BRSV, Haemophilus somnus and Clostridial (Blackleg) combinations.

Implant and dehorn calves. Implant calves and yearlings during the spring cattle working, if the timing is appropriate (follow label). Dehorn calves before fly season, if possible.

## What Is the Value of Added Weight?

*James B. Neel, Professor  
Animal Science*

Heavier feeder calves fetch more total dollars per head than lighter-weight calves do. As a result, cow-calf producers apply those management practices that increase market weight.

However, most producers do not understand the true value of the additional weight gain. Research and market results have both shown that as calves increase in weight, the market price declines. For example, a summary of Tennessee Livestock Auctions for the week of February 17 reported that 425 lb. M-1 steers fetched \$1.43 per pound while 475 lb. M-1 steers, 50 pounds heavier, averaged \$1.35 per pound.

Many conclude that the additional 50 lb. weight is worth \$1.35 per pound. But, that is not the case. The actual value of the added gain was 67 cents per pound, not \$1.35. The additional 50 pounds resulted in a \$33.50 larger return per head. (Sale price = weight x price per pound. \$641.25 – \$607.75 = \$33.50. \$33.50 ÷ 50 pounds = 67 cents per additional pound over 425.)

There are several good practices that can increase the market weight of feeder calves. A short calving season, creep feeding, marketing older calves, improving genetic potential for gain, improving forage production and maintaining a healthy cow herd are a few examples.

When making the decision to produce heavier feeder cattle, cow-calf producers need to consider the following: (1) What would the anticipated weight increase be from the adoption of a specific practice? (2) What will the practice cost? and (3) What return, or

value, would be realized from the practice? And finally, (4) Will the added value be great enough to offset the cost of producing the weight?

## Some Thoughts on Beef Cattle Handling Facilities

*Clyde Lane, Jr., Professor  
Animal Science*

There has been a lot of discussion about upgrading beef cattle handling facilities since the implementation of the Agricultural Enhancement by the Tennessee Department of Agriculture. Whether matching funds are received or not, it is critical that any purchased or constructed components of a handling facility fit together to make a facility that can be used safely and efficiently to perform recommended management practices.

Most producers purchase headgates or commercial squeeze chutes to use in their handling facilities. If a headgate is purchased, it is important that it be properly installed. The posts used for attaching the headgate need to be treated and well anchored to ensure longevity. The last thing that should happen would be for the post to break or be pulled out of the ground.

A commercial squeeze chute needs to be located so that cattle going through it will be facing the outside, where there is light. The chute also needs to be positioned so that all levers, gates, etc. work properly without hitting a wall or roof.

Even a good headgate or commercial squeeze chute will have limited functionality if it is not properly tied into a narrow working alley. A small gate that will latch across the alley should be installed at the connection to the squeeze chute if no palpation cage is attached to the chute. The chute should be a maximum of 26 inches wide for cow-calf operations and 22 inches for stocker or backgrounding operations. A chute that is too wide allows an animal to turn around and poses serious safety concerns. The facility should be constructed of metal or strong wood that can withstand the pressure applied by an animal being restrained. Many producers have successfully utilized sawmill run oak lumber to construct these components. This works well where the chute and corral pens are inside a barn or shed. Be sure that all boards are securely attached and that no protruding nails or sharp edges are present. Be sure that boards are placed close enough that animals cannot get heads or legs between them.

If portable scales are to be used, be sure to place the posts far enough apart for the unit to be slid between the posts and under the panels. Consider constructing gates (either sliding in from the side or drop down from above) in front of and behind the scales to keep animal on the scales during weighing.

Don't forget that a tub, or crowding chute, is needed to get the animals into the working chute. This component is always difficult to construct so that animals will

enter the chute and not turn around. The gate and walls should be solid so animals can see only down the chute. Also make the gate out of heavy materials. The heavy gate will absorb some of the impact if an animal kicks. Lightweight gates tend to move quickly and easily when kicked by an animal, resulting in movement toward the individual closing the crowding gate.

Finally, everything possible should be done to improve safety when using the equipment. This starts with good equipment that is in good repair and lubricated so it moves freely. Next, care should be exercised when using the equipment. Keep fingers, arms and other body parts away from moving parts and from where an animal can pinch or kick them. Lastly, cull animals with bad dispositions. Some animals just want to cause injury to someone or somebody, so get them off the farm. Good equipment and extra care when working are not sufficient to prevent injuries that can be caused by a wild animal.

## Keys to Quality Hay Production

*Gary Bates, Professor  
Plant Sciences*

Hay is a necessary evil for cattle producers. It is extremely expensive to produce. It also requires a lot of time, effort and machinery. But without it, we could not feed animals during the winter. If you are going to have a cow-calf herd, you have to have hay. Since it is one of the most expensive components of a cow-calf operation, it is important to make hay production as efficient and economical as possible. Here are some keys to producing quality hay.

- 1. Cut forage at the appropriate time.** The major factor influencing the amount of protein and energy in a hay crop is the stage of maturity at harvest. Once a grass like tall fescue or orchardgrass produces a seed-head, the quality of that crop drops a little each day until it is cut. The best time to cut is when the seed-heads first become visible. This is called the late boot stage. In most situations, hay cut at this stage will contain about 12 percent protein and 55 – 60 percent TDN, which is adequate for a beef cow during the winter.
- 2. Get hay dry as quickly as possible.** Once forage is cut, drying conditions are the factor that influence forage quality more than anything else. The faster a crop is dried to make hay, the fewer nutrients are lost to respiration. If a crop gets rained on, the forage stays wet longer and more nutrients are lost. Also, some of the nutrients will be leached by the rain. How can you speed up hay drying?
  - Use a conditioner. This allows stems to dry almost as fast as leaves.
  - Be ready when the weather breaks. Have equipment ready to go. Don't miss an early week of good weather.

- Consider making haylage. Haylage is a wet hay crop that has fermented. It doesn't have to be as dry as hay to store properly (60 percent moisture for haylage vs 18 percent moisture for hay), so there is less exposure to the weather. These bales can be made after one to two days, instead of four to five days for hay. Haylage bales must be wrapped in plastic to make an airtight package.
3. **Test your hay crop.** There is no way to know the nutrient content of a hay crop without testing it. Based on the stage when it was cut, we may be able to guess; but in order to adequately feed your herd, you need to know. Take a sample of each hay cutting and submit it to the UT Forage Testing Laboratory. The lab will be able to tell you the protein, fiber and TDN content of your crop as well as the amounts of several minerals. If you request, a nutritionist will balance a ration using your hay and corn/cottonseed meal or whatever feed you would like. Contact your local Extension office for more information on forage testing.

## Meeting Market Demand

*Emmit L. Rawls, Professor  
Agricultural Economics*

There are many factors affecting the demand for beef and additional factors affecting the demand for feeder cattle and stocker calves. For beef itself, the primary factors are the price of beef, consumer taste, preferences and income, population, prices of competing meats, and the range of substitutes available. We sometimes assume that all consumers want Choice beef and that we should be trying to produce feeder calves that will grade Choice. Yes, the higher end restaurants do want Choice and Prime beef. Certified Angus Beef (CAB) falls into that category and has been an amazing success story as producers have worked to merchandise their product to the food service business. However, Wal-Mart, seller of a good bit of beef — mostly case-ready (in a sealed tray) — uses Select grade beef. I recently visited a store of a large grocery chain, which offered Choice – aged 14 days beef, Bison burgers, Laura's Lean beef, and a family tray pack which appeared to be Select grade. Consumers do have different tastes and preferences as indicated by the variety being offered in that store. In the meat business, the meat is not just on display. If they don't sell it, they smell it as the butcher used to say. There are many factors which can affect consumer tastes and preferences including convenience, variety and health issues, such as BSE or E. Coli. At the present we are awash with chicken, partly due to over-production and, perhaps, partly due to bird flu induced consumer anxiety here and abroad.

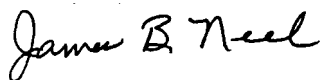
Demand for feeder cattle weighing 600 pounds and up is primarily affected by the price of feed and the expected sale price of finished cattle weighing 1100

to 1300 pounds, as reflected by the futures market price about five months out for Live (finished) cattle. The local feeder cattle price is also affected by trucking costs. For cattle being hauled a thousand miles to the feedlot, buyers have to pay about \$6 per hundred less in Tennessee than the cattle would be worth at the feedlot, just to make up for the trucking cost to get the cattle hauled. Buyers want feeder cattle that will have low morbidity (sickness) and death loss. They want cattle that will gain, and some prior evidence or history is helpful. They also want cattle that will grade well, i.e. Choice or better with no Standards. Due to the variety of cattle being fed and market conditions, 50 to 60 percent of the cattle graded Choice or Prime with the remainder grading Select. Cattle grading Standard are usually not marked Standard but are called a no roll and merchandised to lower end restaurant or food service businesses. Since Choice cattle sell at a higher price, it is natural for feedlots to want cattle that will grade Choice, especially if they are selling on a grid or carcass system. For those selling on a live basis, which is about half of the business, the cattle all bring about the same price. Cattle expected to have a higher percentage of Choice will sell \$.50 to \$1 higher than lesser-grading pens.

The export market for our beef has been drastically reduced since December 2003 when we had our first case of BSE. We have regained several of those markets by selling only boneless beef from animals under 30 months, as determined by dentition (examination of the teeth) at the packing plant. We are still negotiating with South Korea for the resumption of exports of boneless beef from cattle under 30 months of age. Hopefully, trade will begin in the next month or two. Following our shipment to Japan of veal containing backbone, that market has been closed, but we are working to get it reopened. Japan has the unique requirement that the beef be from cattle under 21 months of age. They have agreed to take the USDA meat grader's call on a carcass's age being A40, 14 to 15 months old, as determined by the color and hardness of backbone. USDA estimates that only 8 percent of the cattle supply is that young when processed. The other way to qualify cattle for the Japanese market is through age and source verification. Cattle have to meet the requirements of a Quality System Assessment (QSA) or Process Verification Program (PVP) to qualify for the Japanese market. We have the cattle on the Tennessee Beef Evaluation in Iowa qualified with a Tyson QSA. Tennessee is in the process of putting into place a Process Verified Program which would allow cattle that are individually identified and can be age and source verified to qualify for the Japanese market. It will likely only work for cattle where the age and definite origin are known and records which would stand up to an audit are in place. Ten percent of the producers in the program would be audited each year. It will be tough for folks in the stocker and back-grounding business to fit into this program since they do

not know the age or origin of most calves they buy. The signed affidavit or statement that cattle can be age and source verified will not hold up under the QSA or PVP. While the QSA and PVP do require identification, these programs have nothing to do with the National Animal Identification System.

In the meantime, stay abreast of what is happening in these programs. Keep accurate records of calf birth dates and individually identify the calves, especially if you are planning to market through some type of special sale. We will need our export markets this year and in the future as the cattle herd is increasing and more beef will be on the market.



James B. Neel, Professor  
Animal Science

## Beef Cattle Time

**From:**

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**Leader/Agent**

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