

BEEF MANAGEMENT TIPS

Dates to Remember

- **Clarke County Hay Auction**, Hash Auction Center, 632 E. Main St., Berryville, VA
3rd Wednesday
Gates Open: 9:00 a.m.
Growers/Sellers: 9:30 a.m.
Auction: 10:00 a.m.
- **VA Beef industry Convention**, Roanoke, VA
February 11 & 12
- **BQA Certification Meeting**, VA Livestock LLC, Front Royal, VA
February 20, 1:30 p.m.
- **Forum for Rural Innovation**, Best Western Lee-Jackson Conference Center, Winchester, VA
March 19, 8 a.m.-3:30 p.m.
Pre-registration required; cost \$35
- **Spring Elite Sale**, Farmers Livestock Exchange, Winchester, VA
April 7, 7 p.m.
- **VA Beef Expo**, Rockingham County Fairgrounds, Harrisonburg, VA
April 16-18

If you would like to receive your newsletter and other beef related information by email, please contact us with your email address.

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ELITE SALE

The Spring Elite Sale will be on April 7th at 7:00 p.m. at Farmers Livestock Exchange in Winchester, VA. The Elite Sale is an opportunity to buy or sell value added quality cattle. If you have cattle you believe would work well for the sale, please contact the Clarke County Extension Office by February 18th to nominate your cattle. We will then send you copies of the Rules and

Requirements for your type of cattle. If you would like to check out the complete set of requirements and forms, log on to Virginia Cooperative Extension-Clarke County website to view the documents. We will post those that consign early to advertise the cattle that will be available for sale.



HAY AUCTION

In September 2009, the first Clarke County Hay Auction was held. Since then, we have had one every month. The Auction is held on every third Wednesday of the month at Hash Auction Center, 632 East Main Street, Berryville, VA. Brian Hash of Hash Auctions has done a wonderful job getting the auction off the ground and running. Hay auctions aren't new, but they are something new to this area.

The Clarke Auction was initiated by the Clarke County Economic Development Advisory Council who then partnered with the Forum for Rural Innovation and the Clarke County Equine Alliance as well as Virginia Cooperative Extension to promote the event. During the planning process for the auction, we visited Tom Weaver's Hay Auction in Rushville. It was at this point that he shared the potential value of a hay auction with us; The hay auction gives farmers the ability to farm livestock without being tied to growing and making hay.

Many operations get stuck between being too big to rely on someone else to make their hay and too small to justify the expense of owning their own hay making equipment. There are always extenuating circumstances and reasons why we can't get away from

hay making; often it is that there is a field or even a farm that we can't pasture because of fence or water issues. Hay is certainly an easy enough crop to grow, but making quality hay isn't always easy.

When buying hay, we can choose hay that does not have mold, that has not been rained on and that is the right quality for what we are feeding. When making hay, we try our best to avoid rain and mold while still making quality hay, but just because we try doesn't make it so. It is important to consider the cost of making poor quality hay when weighing the decision on whether or not we can afford to give up our hay making operation.

Some concern has been given that the hay auction could establish higher or lower hay prices than what larger market is trading at. With any auction, the price a product receives is its value at that particular time and place; the same product can certainly be worth more or less at a different time or place. The auction is made stronger by having a large and diverse collection of buyers and sellers. To grow, the auction requires that new buyers and sellers remain committed to coming to the auction with the understanding that they may not find the right product or price every time they come.

A hay auction gives farmers the ability to farm livestock without being tied to growing and making hay.

BEEF QUALITY ASSURANCE

Around this time of year, there is always some confusion about two different but related programs. The first is BQA or Beef Quality Assurance; the second is VQA or Virginia Quality Assured.

Beef Quality Assurance (BQA) is a national program that was derived from the Hazard Analysis Critical Control Points (HACCP) system that is presently the accepted framework for safety assurance programs in processed and fresh foods. BQA, like HACCP, is mainly focused on preventing poor quality product from reaching the market place.

Virginia Quality Assured is a marketing program that started back in the fall of 1997, and it's purpose is to improve the health and genetics of Virginia cattle and reward the producers of those value added cattle (examples of value added: vaccines, weaning, and or genetics). There is also a similar program for marketing Heifers - Virginia Premium Assured Heifers (VPAH). One of the requirements to sell VQA cattle is that the producer must be BQA certified.

Beef Quality Certification (BQA) last for two years, at which point you must attend a recertification meeting to maintain your certification. The Basics of BQA guidelines remain the same: Feedstuffs, Feed Additives and Medications, Processing and



Treatment Records, Injectable Animal Health Products, and Care and Husbandry practices. But there are some areas we have put into practice better than others. For the most part, everyone is now more than aware of the damages that injections cause to the meat, and most producers give nearly all their shots in the small triangular region on the neck of the animal. The BQA program is much more than just giving shots in the neck, and hopefully through the recertification meetings and training more producers will see the benefits of other practices identified by the BQA certification program.

The BQA program is also more than just a stepping stone to qualify for special sales. You can use your certification to let your customers and cattle buyers know that you use safe and beneficial practices on your farm to produce quality cattle even if they are not sold in a special sale or program.

On February 20th we will hold a BQA certification meeting at Virginia Livestock LLC in Front Royal at 1:30 p.m. Attending this meeting will allow you to be Certified/Recertified. This will cover meeting the requirements to sell VQA cattle, as well as participating in the new Shenandoah Valley Beef Cooperative started this year.

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If you are a person with a disability and require any auxiliary aids, services, or other accommodations to participate, please discuss your needs with Jake Grove, Extension Agent, Agriculture and Natural Resources, Animal Science, at the Virginia Cooperative Extension - Clarke County Office (540) 955-5164) during the business hours of 8:00 a.m. and 5:00 p.m.

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BEEF WEBINAR

This winter Virginia Cooperative Extension has held several Webinars (seminars held over the Internet). The first of these was held December 10th. To participate in these meetings, you can login to the internet and participate at home. If you would like to participate in the remaining two meetings but are not able to access the internet at home, please contact the Clarke County Extension Office (540) 955-5164, and we can make arrangements to host a viewing. Questions from the audience can be submitted via an on-line chat box or over the telephone using a number provided during the program.

- First Webinar, **Winter Nutrition for the Beef Cow Herd:**
<http://connect.extension.iastate.edu/p69433083/>
- Second Webinar, **Beef Cattle Reproduction:**
<http://connect.ag.vt.edu/p47781255/>
- To connect to future Webinars,
Calving Management and Neonatal Calf Care: Thursday, February 18 at 6:30 p.m.
Topic to be Announced Later: Thursday, March 18, at 6:30 p.m.
<http://connect.extension.iastate.edu/beefcattlewebinar/>

CALVES AND THE COLD

Calf losses due to cold can result from both severely frost bitten parts as well as from freezing to death or hypothermia. Appropriate management can help cattle producers avoid many of these losses for those operations that have calves born during the cold season.

Frostbite is the damage to body tissues that occurs when these tissues freeze. The extremities are most at risk. Frozen ears and tails result in changes of cattle appearance but do not affect cattle performance significantly. Frozen feet generally result in a calf that must be put to sleep or will die. Occasionally teats of a recently calved cow freeze resulting in mastitis and frequently loss of milk production in at least one quarter of the udder.

Newborn calves are most at risk because they are wet and because they have a large surface area in relation to their total body mass. Calves are not fully capable of maintaining temperature the first several hours of life. Newborn calves have a circulatory system that is less able to respond to cold changes as compared to more mature animals.

Weather conditions have a great effect on the risk of frostbite and hypothermia, above and beyond just creating low temperatures. Wind is often the biggest factor. The effect of wind is often referred to as wind chill and tells how living things “feel the temperature”. Wind chill is often many degrees colder than the actual temperature. Humidity has a large effect on cold as well since humid air can take more warmth away from animals.

The surfaces on which cattle must rest also have a great effect on the risk of frostbite. If cattle must lie on snow ice or frozen ground they will lose much more body heat than if they can rest on dry bedding or grass. Snow or ice from freezing rain on calves dramatically increases heat loss.

Calves that freeze to death are unable to maintain a high enough body temperature to keep body processes working. Newborn calves have a special body tissue called “brown adipose tissue” that is designed to help them deal with cold temperatures. During cold temperatures this special fat is broken down and creates heat that helps the calf keep warm. However, very cold conditions can overcome this protective mechanism and calves die.

Intake of the first milk (colostrum) and physical activity help calves maintain and generate the heat they need for body process to work properly. Attentive mothers vigorously clean newborn calves and stimulate this activity and the nursing of colostrums. Inexperienced or less attentive dams may let a calf get cold enough so it is sluggish and hyperthermia results.

Recommendations for preventing frostbite and hypothermia in Virginia Cattle:

- Provide windbreaks for calving cows when wind chill temperatures are below 20° F.
- Provide bedding for calving cows when wind chill temperatures are below 10° F. Often the most convenient way to do this is to roll out a dry round bale of hay.
- House calving cows and calves less than 1 day of age when wind chills are below 10° F. and calves cannot be kept dry because of snow or rain. Remember, housing can also be a negative because organisms that cause scours and pneumonia build up in barns and stalls. Finding the right balance of protecting calves from the cold but not exposing them to sickness bugs requires special skill when weather conditions are severe during calving.

Treatment of frostbite:

- Detect frostbite early. Examine newborn calves carefully when conditions create a risk. If ear-tips are frozen there is significant risk that feet may be experiencing damage as well.
- Thaw tissues as quickly as possible. Much of the damage of frostbite occurs during the thawing process. Ice crystals form that damage all tissues. A fast thaw decreases ice-crystal time.
- Once tissues are thawed re-freezing must be prevented. This nearly always means housing with heat for several days. Because of damage to circulation from the initial freezing these tissues will re-freeze very easily.
- Tissues that will recover from freezing should stay warm. If tissues are cold to the touch the next day there has probably been enough damage so that blood supply is gone and the feet or other parts will become gangrenous.

Treatment of hyperthermia:

- Careful observation of newborn calves during cold conditions is crucial. Healthy calves stand often, nurse large amounts of colostrums and are alert as evidenced by their holding the head up and getting up when encouraged. Extremities should feel warm.
- Cold calves should be warmed and fed warm colostrums. If they do not nurse then they should be given a bottle or tubed with colostrums or a commercial colostrums substitute.
- A number of warming techniques can be successful. A few hours in the floor board of the pickup truck with the heater on high saves many calves. Hair dryers both dry and warm cold calves. Heat lamps work best if calves are already dry. Electric blankets can be very effective. Some producers have built boxes with a forced air heater that are very effective.
- Severe cases of hyperthermia require special attention. Sometimes warming the outside of the calf shunts blood

from the critical organs and results in death. Warm water baths can warm a very cold calf quickly, but sometimes result in death. Warm IV solutions or warm enemas administered by veterinarians can sometimes overcome this problem.

Careful attention and appropriate treatments during cold weather calving can save calves' lives and improve profitability in tough cattle economic times.

--Source: Dr. W. Dee Whittier, Extension Veterinarian, Cattle VA-MD Regional College of Veterinary Medicine, VA Tech

WHAT KIND OF YEAR DID YOU HAVE?

As 2009 comes to a close, it is always an excellent time to reflect on the kind of year you experienced with your cattle enterprise. As you review receipts and bills it important to keep the big picture in focus as you assess the details. The profitability formula is the same for everyone:

Profit (loss) = income-costs

And can be described for a cow-calf enterprise as:

[(Calf Crop % x Weaning Weight) x Price] - Costs

This can also be expressed on a breakeven basis:

Break even price = $\frac{\text{Annual Cow Cost}}{\text{Average Weaning Weight} \times \text{Calf Crop \%}}$

Break even price = $\frac{\$ 450}{550 \text{ lb} \times 85 \%} = \$96.26/\text{cwt}$

The key to making significant changes is identifying the weaknesses in important areas which have a major impact on the bottomline and addressing the ones which will have the largest impact. The following table shows the relative impact of a 10% change in several factors and the resulting change in breakeven price and return/cow.

Impact of Changes in Key Production Variables on Breakeven Price and Return/Cow

Factor	Change	Decrease in Breakeven Price (\$/cwt)	Increase in Return (\$/cow)
Total feed cost	-10%	\$4.61	\$23.30
Weaned calf crop	+10%	\$10.27	\$51.91
Weaning weight	+10%	\$8.57	\$43.35
Calf price	+10%	\$8.57	\$43.35
Interest cost	-10%	\$0.18	\$0.90
Cull cow weight	+10%	\$1.37	\$6.93
Cull cow price	+10%	\$1.37	\$6.93
All combined	10%	\$34.94	\$176.67

CattleFax, 2008 Cattlemen's College

This is a useful guide to gauge the priority of variables which need to be examined. However, enterprise records are needed to determine where your largest result can be realized. While many times cost-cutting is an important focus; strategic and small investments of additional expense can be justified if it addresses key areas. An example could be if calf crop % needs to be increased, then pre and post-partum nutrition are likely areas of focus with intent to calve cows in better condition either by using higher quality forages or supplementation. If calf crop % is not an area of weakness but weaning weights are, then an examination of sire genetics and management are in order.

Production and economic records are the necessary tools to begin the identification of the variables where the smallest change will have the greatest impact on your profitability. The toughness of margins in the cow-calf business has increased interest in value added programs where genetics, health, and age and source verification are rewarded. The same records used to analyze your operation are the foundation to participation and rewards in these premium programs.

A few other keys to remember as you review your records and formulate a strategy:

- Income is a function of production level, but costs generally determine profitability
- Feed costs are a major cash expense and generally account for over half of the variability in profitability across herds

If you have not done so already, 2010 will be an excellent year to start keeping the necessary production and economic records. Your local county Extension office is a good place to start for publications and forms related to records. Extension enterprise budgets are also available on-line at <http://pubs.ext.vt.edu/446/446-048/446-048.html>.

--Source: Dr. Mark A. McCann, Extension Animal Scientist, VA Tech

ESTIMATING FENCE CONSTRUCTION COSTS FOR GRAZING LIVESTOCK

Fencing costs are one of the most expensive aspects of livestock grazing. The budgets presented in this article are for five primary types of fencing: 1) woven wire, 2) high tensile fixed knot, 3) high tensile non-electric, 4) high tensile electric, and 5) barbed wire. Each budget is set up to provide the costs per thousand linear feet of fencing at 2009 materials pricing. The materials sections will be the most helpful in planning the quantity needed, as well as the cost of each fence material.

Table 1 contains a summary of the annual ownership costs of equivalent perimeter fencing. Depreciation is calculated by dividing material cost by its useful life. The interest on investment is calculated by multiplying one-half the material cost times 6 percent interest rate. The average annual cost of maintenance is based on 5 percent of the initial cost. Labor was figured at \$18.03 per hour, the average fence-building labor charge reported in the 2008 Shenandoah Valley Custom Rate Survey. The custom post driving charge is \$55.83 per hour from the same survey. All budgets include one 14-foot gate. Each budget contains the base assumptions, estimated labor requirements, and suggested wire spacing. Detailed cost calculations for each fence type are found in Tables 2 through 6.

Table 1. Average annual ownership cost by fence type.

	High-tensile Woven Wire (1047-6-11 +1) Table 2	High-tensile Fixed Knot (949-12-330 +1) Table 3	High-tensile Non-Electric (8 Strand) Table 4	High-tensile Electric ¹ (5 Strand) Table 5	High-tensile Barbed Wire (5 Strand) Table 6
Material Cost per 1000 Feet	\$2,895.71	\$2,173.09	\$1,521.87	\$1,224.47	\$1,482.77
Est. useful life (years)	25	25	25	25	25
Depreciation	\$115.83	\$86.92	\$60.87	\$48.98	\$59.31
Interest on Investment	\$86.87	\$65.19	\$45.66	\$36.73	\$44.48
Maintenance ²	\$144.79	\$108.65	\$76.09	\$101.22	\$74.14
Total Cost per Year	\$347.49	\$260.76	\$182.62	\$186.93	\$177.93
Total Cost per Foot / Year	\$0.35	\$0.26	\$0.18	\$0.19	\$0.18

1. Maintenance of electric fence includes replacement of fence charger every 4 years

2. Average annual maintenance based on 5% of initial cost

Table 7 lists the average price and the range of price quotes for a given item. The prices for the materials are based on a recent (March 2009) survey of fence material suppliers across Virginia. Please contact your local supplier for current cost.

Please note that the budgets do not provide estimates of the “up-front” costs associated with getting ready to build a fence; for example, labor and machinery expenses required to clear or prepare a fence row. Since these “up-front” costs would be the same for the farmer regardless of what type of fence they were installing, no attempt has been made to estimate this additional cost. These and other enterprise budgets can be found at: www.extension.agecon.vt.edu/enterprisebudgetsdetail.html or by stopping by your county Extension Office.

--Source: Eric Eberly, Extension Agent, Farm Business Management, Central District
Tom Stanley, Extension Agent, Farm Business Management, Northwest District