



Beef Tips

January 2012

Department of Animal Sciences & Industry

www.asi.ksu.edu/beeftips

Upcoming Events

Kansas Junior Beef

Producer Day

Jan. 7, 2012
Manhattan, KS
www.YouthLivestock.ksu.edu

Winter Ranch Management Seminar

Jan. 10, 2012
Multiple locations
www.KSUBeef.org
See details page 5

Cattlemen's Day

March 2, 2012
Manhattan, KS
www.KSUBeef.org

Beef Improvement Federation

April 18-21, 2012
Houston, TX
www.beefimprovement.org

Contributors

Dale Blasi

Stocker, Forages Nutrition & Mgt.
785-532-5427
dblasi@ksu.edu

Joel DeRouchey

Environmental Management
785-532-2280
jderouch@ksu.edu

Larry Hollis

Extension Beef Veterinarian
785-532-1246
lhollis@ksu.edu

Sandy Johnson, Editor

Livestock Production
785-462-6281
sandyj@ksu.edu

Chris Reinhardt

Extension Feedlot Specialist
785-532-1672
cdr3@ksu.edu

Justin Waggoner

Beef Systems Specialist
620-275-9164
jwaggon@ksu.edu

Bob Weaber

Cow/Calf Specialist
785-532-1460
bweaber@ksu.edu

Preparation Key for Successful Bull Purchases

Bob Weaber, cow/calf specialist

As the winter and spring bull-buying season approaches, seedstock purchasers should do their home work to help ensure the bull(s) they purchase this year meet their needs. Preparedness is the key to making an informed purchase. Before you crack open the sale catalogs of seedstock suppliers, there are a few resources and skills you should possess.

First, make sure you understand the use of Expected Progeny Differences (EPD) and selection indexes. While EPDs are not the only selection information you should consider, EPDs are the most effective tools available to describe the genetic differences between animals within and across herds. EPDs are much more effective genetic predictors than actual or adjusted performance records. If an EPD is available for a trait it should be used instead of an animal's own performance record for that trait. The EPD removes age and environmental effects that can bias a decision based on actual or adjusted performance records. Use Calving Ease (CE or Calving Ease Direct: CED) EPD, rather than birth weight (BW) EPD, to select bulls that minimize calving difficulty. Calculations for CE EPD include BW data and other sources of information that affect dystocia. The CE EPD is a much better tool to manage calving difficulty than either BW EPD or an animal's own BW record.

Not all EPDs are the same, so make sure you know the appropriate information for the breed of cattle you are purchasing. For a useful reference on EPDs and other genetic topics see the *Beef Sire Selection Manual* (<http://www.nbcec.org/producers/sire.html>). Obtain the breed average EPDs and a percentile rank table available from the most current genetic evaluation for the breed of interest. Percentile rank tables can be found on most breed association websites. These tools will enable you to compare the relative genetic merit of individual animals to other animals in the breed.

Second, make sure you know what traits you would like to improve in your herd. What breed(s) fit in your mating system? If you are using a cross-breeding system make sure the breed you selected fits your objectives. Other factors to consider are: keeping replacement heifers, endpoints for progeny marketing (weaning, back-grounded or in the beef). Assessment of these factors will help point you to the best breed for your needs and the combinations of maternal/growth/carcass traits that best fit your operation and environment. Be sure to apply selection to traits that have direct economic importance in your production system.

Third, set a realistic budget for bull purchases. Like most things in life, price is driven by quality. Evaluation of a seedstock supplier's prior year sale averages will give you an idea of what to expect in terms of purchase costs. That said, prices over the last 12 months indicate that seedstock purchases are substantially more expensive, some as much as \$500 more, than in previous years. The increased bull cost is largely driven by increased development costs incurred by seedstock producers. The added purchase cost makes it even more important to make a well thought out decision.

Fourth, get to know your seedstock supplier and make sure he/she knows you and your operational goals. Seek out recommendations from your supplier well in advance of the sale. Once you receive the sale catalog, make a short list of bulls (6-12 head) that fit your specifications. Arrive at the sale site early to inspect the bulls on your short list. Shorten this list of candidates based on conformation and updated data to identify your purchase candidates. Keep the sale order in mind. Stay focused on the bulls you selected earlier. Sticking to your plan will avoid impulse purchases. Remember: Failure to plan is planning to fail. Please contact your local county extension office or me if you need help finding resources to aid in your sire selection activities.

“You can’t manage what you don’t measure.”

Tally Time – Cow/Calf Enterprise Production Costs

Sandy Johnson, livestock specialist

A common illustration shown at industry meetings lately indicates a declining cattle inventory and elevated cow/calf returns. Speculation over when the cow herd may be rebuilt follows. While heifer retention may have increased in certain regions, nationally drought has hampered any large upswing in retention. With the exception of those in drought areas, you get the impression that everyone in the cow/calf sector is making money these days. This could lead to a lack of attention to rising costs of production in cow/calf operations.

The Kansas Farm Management Association has completed their 2010 enterprise reports that provide useful data on costs of production. The 2010 state average for beef cow enterprises selling calves showed a \$404 difference in net return to management per cow for operations that were in the high 1/3 profit category compared to the low 1/3 category (see Figure 1). Sixty percent of that difference was due to gross income per cow which ranged from \$730 for the high profit group to \$489 for the low profit group. The next largest difference between the high 1/3 profit category and the low 1/3 was in feed costs, which excluded pasture. To see more detail on the enterprise summary, see the October 2011 newsletter of Kansas Farm Management Association at <http://www.agmanager.info/kfma/>.

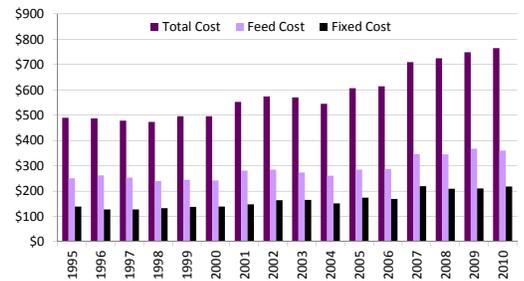
Figure 1. 2010 KFMA Beef Cow, Sell Calves Enterprise



The Farm Management Association data apply full economic costs to all inputs (raised feeds charged at an opportunity cost) and indicate a wide range of profitability between producers. The long term trend in production costs reported by the Kan-

sas Farm Management Association are illustrated in Figure 2. Total cost of production average \$487 from 1995 to 2000, \$561 from 2001 to 2004, and has increased annually from 2005 to the present.

Figure 2. KFMA Beef Cow Enterprise Production Costs



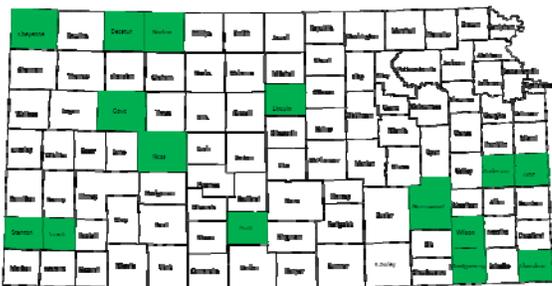
Given the rising production costs, producers need to understand how cost changes are impacting their breakeven price of production. A useful tool to estimate cost of production is the KSU Beef Enterprise budget found at: <http://www.agmanager.info/livestock/budgets/projected/default.asp#Cattle>. The 2010 budget estimates a breakeven of \$91.26 per hundred to cover feed cost. If the only item changed in the budget is the cost of harvested forage (from \$84 per ton to \$125 per ton) the breakeven to cover feed costs increases to \$109.70 per hundred.

While opportunities look bright for cow calf producers that have adequate forage supplies, rising calf prices are not guaranteed to cover ever increasing production costs. Some production systems may need to make adaptations to compete in a high cost era.

New Reports of Trichomoniasis Continue in Kansas

Larry Hollis, extension beef veterinarian

Trichomoniasis (**Trich**) is a sexually transmitted disease caused by a parasite that causes infertility and abortions in the first trimester (also see January and March 2011 Beef Tips). All states neighboring Kansas, and most states further south, west and north of our neighbors now require Trich testing of bulls prior to importation into the respective states. A number of Kansas producers have experienced reproductive problems of the nature that made them or their veterinarians suspect and test for Trich. As a result of this testing, numerous new cases of this sexually-transmitted disease have been discovered in Kansas during the past year. Counties shown in green below are counties from which the Kansas Veterinary Diagnostic Laboratory has reported positive samples being submitted as of November 21, 2011.



Many producers have asked about the use of vaccines to prevent Trichomoniasis. Trichguard®, a vaccine marketed by Boehringer-Ingelheim, is commercially available for such use in cows. This vaccine does not prevent infections, but will reduce the incidence of early embryonic death and abortion associated with trich in cows. Information submitted to U.S.D.A. for vaccine licensing purposes indicate that use of this product improves pregnancy rates less than 80 percent when compared to unvaccinated controls, resulting in a label claim stating that it “serves as an aid in prevention of disease”.

In one controlled challenge study in Nevada where both vaccinated and non-vaccinated heifers were bred by Trich-positive bulls, 62 percent of the vaccinated heifers calved while only 31 percent of the non-vaccinated heifers calved. The vaccine has not been shown to protect bulls from becoming infected. Also, vaccination of the bulls with the “Trich” vaccine will not eliminate the organism from the bulls. For proper use of the product, two injections 2 to 4 weeks apart are required in cows, with the second injection given 2 to 3 weeks before bull turnout. Annual revaccination with a single injection is required. The vaccine does not provide long-term immunity; therefore, it must be given no

earlier than 30 to 60 days prior to the start of the breeding season. One major concern with use of the vaccine is that it gives a false sense of security. Despite vaccination, the disease can persist in the bulls, which in turn allows the disease to persist in the herd, although at a lower level. Bulls from this herd may continue to infect those females that do not respond well to the vaccine, and may also be a source of infection for neighboring herds if bulls jump the fence and get into neighboring herds which are not vaccinated.

The major situation where Trich vaccination is a recommended management practice is when herds are being grazed together on communal pastures such as Bureau of Land Management (BLM) grazing leases. In this high-risk situation vaccination and using only tested Trich-negative bulls are two of the critical management factors under the individual cattle owner’s control. Trich vaccination should result in a higher percentage calf crop, but will still not be as high as in a situation where Trich does not exist.

Since bulls are the carriers and maintenance hosts of this disease, they are the focal point of concern relative to transmission of this disease. Using only virgin bulls or “experienced” bulls that have been tested and found negative for the disease are two primary management strategies for controlling this potentially financially devastating disease. As breeding soundness evaluations (BSE) are performed on bulls this winter/spring, testing for Trich should be included after it has been determined that each bull has passed the earlier parts of the BSE. Another strategy is not to buy open cows as replacements, unless they have a 5-month old calf at side and have not been exposed to a bull since calving. Maintaining good fences, or better yet, keeping breeding female groups in pastures that are out of sight of neighbors’ pastures where bulls are present, are also valuable components of an effective Trich management program.

Producers should be reminded that Trich is a reportable disease in KS. When a case is reported, a veterinarian from the Kansas Department of Agriculture will normally visit the operation to try to determine the source of introduction of the disease. Being a good neighbor suggests that the owner of a positive bull(s) should contact adjoining neighbors so that they will be aware of the presence of the disease in the area and determine if they need to have their herds tested as well.

“As breeding soundness evaluations (BSE) are performed, ... testing for Trich should be included after it has been determined that each bull has passed the earlier parts of the BSE.”

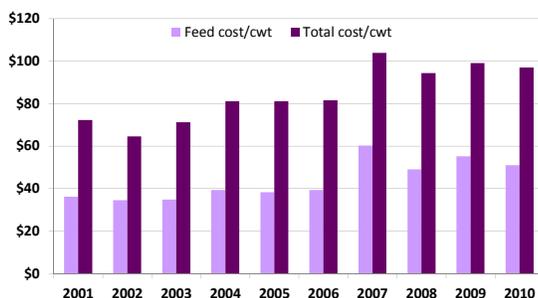
Backgrounding Enterprise Profitability Tied to Feed Costs

Michael Langemeier, agricultural economics

Kansas Farm Management Association (KFMA) data indicate the backgrounding enterprise has not been particularly profitable over the last ten years. Evaluation of five-year average net return, total cost per hundred (cwt), feed cost per cwt, and feeding cost of gain for backgrounding can be used by producers as a benchmark for their own backgrounding enterprises.

Using KFMA data, the only years that had a positive return over variable cost during the last ten years were 2003, 2004, 2005, and 2010. With relatively higher feed grain prices during the last several years, it has been difficult to control costs. Figure 1 presents average feed cost and total cost per cwt for the backgrounding enterprise from 2001 to 2010. Costs per cwt were the highest in 2007. Though lower than that experienced in 2007, cost per cwt in 2008, 2009, and 2010 was still substantially above levels experienced from 2001 to 2006. Due to unique circumstances pertaining to a particular year, it is often difficult to benchmark using just one year of data.

Figure 1. KFMA Backgrounding Enterprise: feed cost per hundred and total cost per hundred



With that in mind, Table 1 presents average gross income per head, total cost per head, and net return per head for the 16 KFMA farms with continuous backgrounding enterprise data from 2006 to 2010. The average weight produced per head was 377 pounds. The average difference between purchase price and sale price was \$19.14. The average ratio of purchase price to sale price was 1.20. Feed cost per head accounted for 57 percent of total cost per head. Feed cost includes purchased and raised feed. The cost of raised feed is computed using the opportunity cost of feed grains, hay, and other feedstuffs produced by the farm and utilized by the backgrounding enterprise. The average net return to management was -\$56.28. Of the 16 farms, 1 farm had a positive net return to management and 11 farms had a positive return over variable costs.

Table 1. 2006 to 2010 KFMA backgrounding enterprise net return to management per head

Variable	Avg.
No. of head	503
Wt produced per head	377
Purchase price, \$/cwt	114.99
Sale Price, \$/cwt	95.85
Gross Income, \$/cwt	73.00
Gross Income, \$/head	274.89
Cost per head	
Feed	187.12
Interest	52.95
Vet Med & Drugs	12.80
Livestock Marketing	14.21
Depreciation	9.79
Machinery	20.77
Labor	25.84
Other	7.68
Total Cost	331.17
Net Return to Management per Head	-56.28

Feed cost per cwt is not the same thing as feeding cost of gain. The later is often used when discussing cost for finishing cattle. Feed cost per cwt is computed using information pertaining to feed cost and weight produced per head. The average feed cost per cwt for the 2006 to 2010 period was \$57.75. Feeding cost of gain is typically computed using all costs except interest on the feeder. Average feeding cost of gain for the 2006 to 2010 period was \$91.09.

Factors impacting feeding cost of gain

Producers know that cattle performance and feed prices can impact feeding cost of gain. Data from the *Focus on Feedlots* newsletter provides monthly data on average daily gain, feed conversion, days on feed, in weight, out weight, feeding cost of gain, and inventory prices for corn and alfalfa. Figure 2 (page 5) illustrates monthly feeding cost of gain for steers from January 2000 to October 2011. Average feeding cost of gain over this time period was \$63.26 per cwt. Feeding cost of gain has been above \$80 per cwt since January of this year. The only other period over the last ten years that had a feeding cost of gain above \$80 was the April 2008 to May 2009 period.

continued...see Backgrounding page 5

Backgrounding...Continued from page 4

Feeding cost of gain can change dramatically as cattle performance and feed price change. Regression analysis was used to examine the sensitivity of feeding cost of gain to changes in feed conversions, corn prices, and alfalfa prices. Feed conversion and feeding cost of gain data were obtained directly from the *Focus on Feedlots* newsletter. Corn and alfalfa prices were computed using average inventory prices for the previous four months. This procedure ensures that the feed prices are correctly matched with the closeout month associated with the feed conversion and feeding cost of gain data.

Results of the regression analysis are as follows: each 0.10 increase in feed conversion increases feeding cost of gain by \$1.01 per cwt, each 0.10 per bushel increase in corn prices increases feeding cost of gain by \$1.11 per cwt, and each \$5 per ton increase in alfalfa prices increases feeding cost of gain by \$0.34 per cwt. Of course, market forces change corn and alfalfa prices. Feed conversion changes are due to improvements in technology and feeding practices that improve feed conversion, the type of cattle being fed, and the seasonality of performance. This article illustrated the sensitivity of feeding cost of gain to changes in cattle performance and feed prices.

Further information on the backgrounding enterprise as well as the backgrounding and finishing enterprise can be found on the KFMA web site (www.agmanager.info/kfma). Cattle finishing returns are updated monthly and can be found at AgManager web site: www.agmanager.info.

Winter Ranch Management Seminar Planned in Six Kansas Locations

Ranch management and cow herd economics will take center stage at Kansas State University's Winter Ranch Management Seminar on Jan. 10, 2012. The seminar is planned for six locations around the state and features a combination of local speakers and webinar presentation delivery.

Seminar locations include Ashland, Highland, Lebanon, Manhattan, Parsons and Russell. All will start with registration at 4 p.m. (program beginning at 4:30 p.m.) and end at 8:30 p.m.

Featured speakers include Trey Patterson of Padlock Ranch, Dayton, Wyo., who will present "Padlock Ranch Company: Building Beef Systems for Long-Term Profitability" and Glynn Tonsor, K-State Research and Extension agricultural economist, who will give the "Cattle Business Outlook". Both of these presentations will be delivered via webinar.

Local speakers at each location will give presentations on winter ration development and hunting lease management.

The cost to attend, which includes dinner, is \$25 per person. Registration is due by Jan. 6. If more than one person attends from any farm, family or business, the price for additional attendees is \$15 per person. More information about each location, plus online registration is available at <http://www.asi.ksu.edu/rms>. Information is also available by contacting Becky Ayres at 785-532-1281 or bayres@ksu.edu.

Figure 2. Feeding cost of gain for steers

