



Beef Tips

November 2013

Department of Animal Sciences & Industry

www.asi.ksu.edu/beeftips

Upcoming Events

Range Beef Cow Symposium
Dec. 3-5, 2013
Rapid City, SD
www.rangebeefcow.com

BIF Genetic Prediction Workshop
Dec. 12 - 13, 2013
Kansas City, MO
www.KSUBeef.org

NW Kansas Calving Management Schools
Jan. 6 - 8, 2014
LaCrosse, Oberlin, Phillipsburg,
Sylvan Grove, Sharon Springs
Details coming soon to KSUBeef.org

Winter Ranch Management 'Town Hall' Meetings
Jan. 2014
See page 4 for details

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Utilize available resources when considering herd expansion

Glynn Tonsor, livestock and meat marketing specialist

As the meat complex adjusts to lower feed costs and increases interest in expanding production, it is important to step back and take note of resources available to guide corresponding decisions. A valuable resource to utilize is the user-friendly spreadsheet Dr. Kevin Dhuyvetter has created for assessing the economic situation presented by purchasing replacement females¹. The spreadsheet is designed to easily be adjusted for a given producer's situation regarding costs and production along with expectations of cattle prices over upcoming years and targeted rates of return.

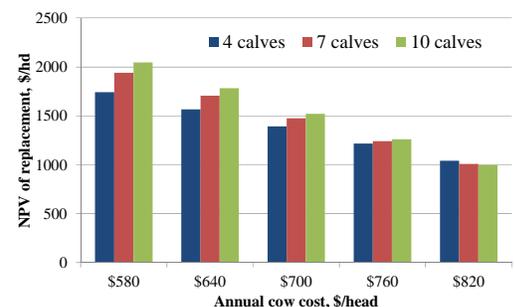
Using what currently appears to be fairly conservative calf prices over upcoming years (averaging \$169/cwt for 562 lb calves) and a base for cow costs of \$700/year, the spreadsheet suggests purchasing a replacement for \$1,420 in anticipation of her producing calves for the next 5 years, would provide an expected return on investment of 7.5%. Similarly, if a replacement was purchased for \$1,522 where 10 years of production were expected, the estimated return on investment would be 7.5%. Any purchases at levels lower (higher) than these \$/hd levels would provide better (worse) expected returns. Similarly, producers with lower (higher) annual cow costs can pay significantly higher (lower) prices for replacements to achieve the same expected rate of return. Stated differently, producers with lower annual cow costs or expectations of a given replacement producing for longer periods will see higher economic value in replacements available for purchase. This is summarized graphically in figure 1.

Comparing the net present values in figure 1 with current transaction prices for replacements

indicates that some producers can be expected to further bid aggressively such that future replacement prices will likely be higher than those currently being realized. Similarly, this comparison suggests some producers with less advantageous cost situations risk "locking in" rather low expected investment returns if they remain active in a replacement market that may move higher.

Producers contemplating rebuilding and/or expanding their breeding herds are encouraged to make use of this and related resources. While there are a host of important economic implications that must be considered when thinking of cowherd expansion that cannot easily be incorporated into spreadsheet based analyses, this spreadsheet helps to quantify some of the factors that need to be considered. These points and related concepts on a host of economic aspects surrounding national beef herd expansion in coming years will be discussed in-depth in the Beef-Cattle Economics webinar on November 5th. In an era of seemingly constant uncertainty coupled

Figure 1. Net Present Value (NPV) versus Annual Cow Cost and Number of Calves



continued...see Herd Expansion on page 3

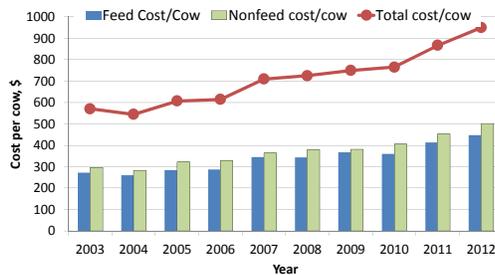
“You can’t manage what you don’t measure.”

Tally Time: Cost of production varies widely between producers and continues to move higher

Sandy Johnson, livestock specialist and Kevin Dhuyvetter, farm management specialist

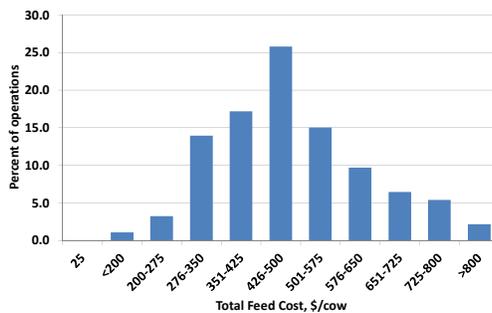
Costs of about everything have increased over the past decade. This is equally true for cow calf producers who have experienced significant increases in costs, particularly in the past two years. Figure 1 shows total costs, feed costs and non-feed costs from Kansas Farm Management Association (KFMA) yearly cow-calf enterprise summaries.

Figure 1. Cost of production for beef cow/calf enterprise. Source: KFMA enterprise analysis.



Changes from 2003 to 2006 were minimal compared to the larger increases in the last five years. Non-feed costs have increased at a somewhat greater rate than feed costs in 2011 and 2012.

Figure 2. Distribution of 2012 Total Feed Cost (average=\$487)

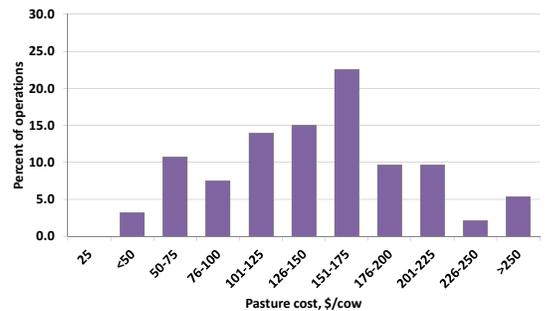


A summary of KMFA data from 2008-2012 shows that there is wide variability in costs of production between cow-calf producers. When comparing the average cost of production for producers in the high 1/3 profit category with the low 1/3 profit category, total cost of production varies by more than \$300 per head. Net return to management var-

ies by nearly \$400 per head for the high and low profit categories. While macro-economic factors play a role in differences in absolute profitability from year to year, producers’ management abilities influence their relative profitability. Producers with relatively high costs of production are not likely to remain in business in the long run. For the complete report see *Difference between High-, Medium, and Low-Profit Producers* at [www.agmanager.info/livestock/budgets/production/beef/Cow-calf_EnterpriseAnalysis\(Aug2013\).pdf](http://www.agmanager.info/livestock/budgets/production/beef/Cow-calf_EnterpriseAnalysis(Aug2013).pdf).

Feed costs typically represent 45-50% of total costs (47% in 2012) for the cow/calf enterprise. Variability observed in total costs is also present in total feed costs (Figure 2) and pasture costs (Figure 3; a component of total feed cost) from 2012. There is a positive correlation (0.34) between pasture costs and total feed costs. However, the relationship is not particularly strong indicating that having high pasture costs is not necessarily indicative of having high total feed costs. The relationship between pasture costs and non-pasture feed costs are explored more completely in a publication titled *Feed costs: Pasture vs. Non-pasture costs for Cow-Calf Producers* at www.agmanager.info/livestock/budgets/production/default.asp.

Figure 3. Distribution of 2012 Pasture Costs (average=\$147)



Zilmax Update

Chris Reinhardt, feedlot specialist

You may have heard a great deal about Zilmax® (zilpaterol hydrochloride) lately in either the popular or beef industry press. Zilmax is a growth promotant feed additive in the class called beta agonists, which is used during the final days of the finishing phase to increase carcass weight and lean muscle mass in beef cattle.

Beta agonists have been used in the U.S. cattle finishing industry since 2004 and in the swine industry since 2000, at which times ractopamine hydrochloride was made available for use in cattle (Optaflexx®) and swine (Paylean®). Zilmax was approved for use in cattle in 2006 and became widely available in 2007.

Since their respective approval dates, implementation of both beta agonists increased steadily through 2012 when approximately 70-80% of the finished cattle in the U.S. received a beta agonist. Extreme heat stress conditions occurred in various cattle feeding areas during the summers of 2011, 2012, and 2013, which coincided with greater than anticipated late-term mortality. Because growth in beta agonist use, and Zilmax use in particular increased during that same time frame, questions surrounded the coincidence. However, because Zilmax increases the lean muscle mass and reduces fat and marbling content of the carcass, cattle are typically fed for an additional number of days and to a greater finished weight, which mitigates the marbling reduction. This increase in number of

days fed and the weight of cattle when finished confounds the investigation into changes in heat-related mortality.

In August 2013, a number of packing plants reported that a small percentage of cattle which had been fed Zilmax were “reluctant to move” after arrival at the packing plant, and announced that they would suspend acceptance of cattle fed Zilmax. Merck Animal Health, the manufacturer of Zilmax suspended sale of Zilmax on August 16, 2013.

In relation to these decisions by the manufacturer and the packing firms, it is important to note that no food safety issues were involved. The decisions were instead made to provide the industry with the opportunity to investigate the issue of reluctance to move. Also, Optaflexx has not been similarly implicated in this issue.

Merck, Elanco (manufacturer of Optaflexx), the major packing companies, and the beef industry are pursuing investigations into potential causative factors contributing to the impaired mobility issue. Unfortunately, with the cessation of summer heat conditions, and with the withdrawal of Zilmax from the marketplace, it is difficult to duplicate the conditions which may have combined to cause the impaired mobility issue. However, research models are being developed which may provide answers and management practices which will prevent the issue in the future.

“This increase in number of days fed and the weight of cattle when finished confounds the investigation into changes in heat-related mortality”

Herd Expansion....continued from page 1

with substantial interest by stakeholders throughout the industry in possibly expanding the nation’s breeding herd, producers are encouraged to actively stay current in their understanding of the economic situation and to utilize available resources such as these highlighted here.

¹This spreadsheet (*KSU-Beef Replacement*) is available online at: <http://www.agmanager.info/livestock/budgets/production/default.asp>

This article is reprinted from K-State/LMIC In the Cattle Market Newsletter - <http://www.agmanager.info/livestock/marketing/outlook/newsletters/default.asp>

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Prepare for Winter Weather

Sandy Johnson, livestock specialist

It would be only fair to admit that there were no plans to write about preparing for winter weather until the October blizzard that hit South Dakota and surrounding areas. In some cases cattle and horses died in corrals with hay and good windbreaks which reminds us that Mother Nature can be very harsh even when we think we're prepared. Nevertheless, good planning and preparation can make a difference in how difficult it is to deal with winter weather challenges. The following is a list of items to review going into this winter.

- **Body Condition** – Animals in good body condition are better able to deal with weather stress than thin animals. It is much easier and less expensive to increase body condition when requirements are low and temperatures are moderate.
- **Evaluate feed inventory and analyze for nutrient quality.** Use this information to balance rations and match nutrient quality with nutrient demand. Doing so will avoid a common problem of overfeeding cows in late gestation and underfeeding during early lactation.
- **Emergency Hay Reserves** – Many had no harvested forage left this June and so winter stores need to be rebuilt for “normal” winter feeding as well as “emergency” feeding. How close is the feed supply to the wintering site(s) relative to the risk of a snow/weather event preventing feed delivery to the cattle? What risk does your winter feed delivery system have in the face of heavy snow and drifts or unusually wet weather? Cold weather increases the cow's energy needs. Make plans for how you would adapt the diet during an extended period of sharply colder weather.
- **Feeding Equipment** – Service and repair to have in good working condition.
- **Vaccination** – A cow with good immunity produces colostrum with the antibodies needed for passive immunity of the calf. Subclinical deficiencies in trace minerals can result in poor immune response. Deworm so that parasites don't suppress immunity.
- **Livestock Insurance** – Does your current policy cover the value of your cattle in today's market? What type of losses does it cover? What risk are you willing to take and what amount of loss can you risk taking on your own?
- **Windbreaks** – Drought has been hard on many living wind breaks. Make plans to add, replace or enhance windbreaks. Maintain or repair structural windbreaks as needed. Consider some type of portable windbreak for use on crop residue fields.
- **Bedding** – If you fed your bedding supplies last winter, make sure to replace. Any number of things such as straw, corn stalks or CRP hay can work. Wet hair coats and muddy conditions dramatically increase maintenance requirements. A clean dry place to rest helps reduce stress.
- **Generator** – Test generator and connections to run essential electrical items. Assess fuel storage and supply.
- **Waterers** – Are water heaters functioning and spare parts on hand?

While we can't plan for every eventuality, preparing for normal winter conditions just makes good sense. Or as Winston Churchill said “He who fails to plan is planning to fail”.

Winter Ranch Management Takes on 'Town Hall' Format

To help address a wide range of timely issues facing Kansas ranchers, the annual K-State Winter Ranch Management Seminar is taking on a new format. A panel of K-State Extension Beef Specialists will form an expert panel to field audience questions in a ‘town hall’ meeting format. A series of meetings to be held in January 2014 are being planned across the state. Profit minded beef producers are encouraged to bring their questions on nutrition, reproduction, genetics, animal health and well-being, and ranch/resource management questions to the forum. The expert panel will field questions for the duration of the meeting which will be moderated by your local/district extension educator. For more information contact your local county or district extension agent and watch www.ksubeef.org for details.



Trichomoniasis Regulation

Effective October 4, 2013

Attention Cattle Producers

Bulls

Bulls that change possession or ownership within Kansas must meet one of the following criteria:

- Non-virgin bulls or bulls greater than 18 months of age:
 - Must be tested for trichomoniasis and certified negative within 60 days prior to change of possession or ownership, OR
 - Be sold for slaughter only or for feeding for slaughter purposes.
- Virgin bulls 18 months of age or younger may change possession or ownership without a negative trichomoniasis test if the owner signs a statement verifying the bulls have not been sexually exposed to breeding-aged females.
- Virgin bulls 24 months of age or younger that are part of a herd management plan approved by the animal health commissioner shall not be required to be tested for trichomoniasis and certified negative prior to changing possession or ownership.

Cows and Heifers

Cows and heifers moving into Kansas must meet one of the following criteria or move into an approved Kansas livestock market and then meet one of the following criteria:

- Move for slaughter or feeding purposes only with no bull exposure after entering Kansas
- Have calf at side with no bull exposure since calving
- Be at least 120 days pregnant
- If not 120 days pregnant, have been exposed to only known negative bulls
- Have 120 days of sexual isolation
- Known virgin heifers with no bull exposure since weaning
- Embryo transfer-associated movement with no bull exposure after entering Kansas

Protecting the Kansas Livestock Industry

For more information contact:

Kansas Department of Agriculture Division of Animal Health
(785) 296-2326 • agriculture.ks.gov/divisions-programs/division-of-animal-health