



Beef Tips

November 2012

Department of Animal Sciences & Industry

www.asi.ksu.edu/beeftips

Upcoming Events

Applied Reproductive Strategies in Beef Cattle

Sioux Falls, SD
December 3-4, 2012
www.beefrepro.info

Winter Ranch Management Seminar

Jan. 8, 2012
Multiple locations
www.KSUBeef.org

Cattlemen's Day

March 1, 2013
www.KSUBeef.org

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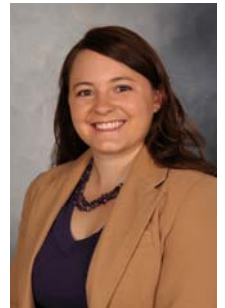
Farney joins Animal Science & Industry faculty as Beef Systems Extension Specialist

Jaymelynn Farney recently joined the ASI faculty at Kansas State University as assistant professor and beef systems specialist. Jaymelynn was raised in Fort Sumner, NM where her family had a cow-calf operation and she was very involved in 4-H and FFA programs. Jaymelynn found her way to Kansas on a livestock judging scholarship to Butler Community College (A.S. in Agriculture, 2005) and then continued with her B.S. (2007) at Kansas State University in the Animal Science Department. Her M.S. degree (2009) was completed at Oklahoma State University in receiving calf management and nutrition, while her PhD was received from Kansas State University in Ruminant Nutrition (2012). While Jaymelynn was in graduate school, she was a member of the American Society of Animal Science and Dairy Science Associations, and an ARPAS member in Beef Cattle.

Jaymelynn's applied research will be focused on the demands and interests of southeast Kansas beef producers and as such, her research will include fescue management, nutrition and health practices for stocker grazing operations, and heifer and bull development. Additionally, applied research will be conducted on improving efficiencies of production to help producers realize their greatest economic potential. Health and nutrition interactions are also an area of interest to Farney.

Farney hopes to assist cow-calf operations and stocker/backgrounding operations to develop management practices to improve efficiencies of production. Primary areas of interest would be use of new feed products, technology, and record keeping tools to monitor progress. Marketing strategies are also an area of interest.

Farney can be reached at the Southeast Agricultural Research Center in Parsons, by phone at 620-421-4826 ext. 17 or email jkj@ksu.edu.



Focus on Feedlots



Focus on Feedlots was created at Kansas State University to provide basic feedlot performance data for steers and heifers, and feed ingredient prices. Each month, closeout data from various Kansas feedlots are summarized to provide average values for days on feed, average daily gain, harvest weight, dry matter feed conversion, cost of gain, and death loss, as well as corn and alfalfa hay prices.

The [Monthly Reports](#) are available as Adobe PDF files or you can subscribe to the listserv to receive them directly by contacting Eve Clark (evect@k-state.edu, or 785-532-1280).

Links to individual tables of each year's data (Yearly Data Tables), and charts for three-year averages since 1990 (Three-year Average Charts) can be found on the summary page <http://www.asi.ksu.edu/p.aspx?tabid=302>.

For more information contact Justin Waggoner, jwaggon@ksu.edu, 620-275-9164. www.asi.ksu.edu/focusonfeedlots/

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

Tally Time – 2012 SPA Performance Measures

Sandy Johnson, livestock specialist

Weaning time and the collection of weaning weight is the last piece of data needed to complete 2012 SPA (standardized performance analysis) production measures. Data in Table 1 below is an example of the primary information and calculations needed. Percent calf crop or weaning percentage is a function of the number of cows exposed for breeding, so for a spring 2012 calf crop, this would be cows exposed in 2011. Weaning weight per cow exposed adjusts weaning weight for all the reproductive and management losses that occur from breeding one season to weaning the next.

A good way to use this information is to compare to previous years data for the same herd or to some benchmark data set. The 2011 CHAPS™ database average shows a percent calf crop of 91, where as the Southwest database (long-term summary; NM, OK, TX) has a value of 79 percent. Weaning weight per cow exposed for the example herd is 378 pounds compared to the benchmark values of 503 and 418 pounds for CHAPS and Southwest, respectively. The example herd has a higher calf death loss than either database and a higher pregnancy loss than the CHAPS average. The percentage values in the top part of Table 2 and calving distribution information are all useful for comparison for the sample herd.

Data shown here can be used in a number of ways. If the example herd wanted to improve calf crop percentage, emphasis could be placed on understanding why cows failed to conceive and/or

Table 1. 2012 production summary for example herd

1 – Breeding—2011		
Cows exposed	246	hd
2 – Preg Check—2011		
Diagnosed Pregnant	215	hd
3 – Calving—2012		
Total calves born live	204	hd
4 – Calves weaned—2012	190	hd
5—Average weaning weight	490	lbs
Calculations -		
6- Pregnancy Percentage (line 2/line 1) x 100	87.4	%
7- Calving Percentage (line 3 / line 1) x 100	82.9	%
8- Percent calf crop (line 4/line 1) x 100	77.2	%
9—Pounds weaned/cow exposed (line 5 x line 8)/100	378	lb



Table 2. SPA performance measures from CHAPS™ (91,414 cows) and SW Cow-Calf SPA long-term average (387,624) and example herd for 2012

Item	CHAPS	SW	2012
Pregnancy percentage	93.6	87.6	87.4
Pregnancy loss	0.7	6.4	4.5
Calving percentage	92.9	81.2	82.9
Calf death loss, %	3.1	2.5	5.7
Calf crop percentage	91.1	79.1	77.2
Calving Distribution			
% calves born d 1 - 21	61.2		62.4
% calves born d 1 – 42	85.8		92.6
% calves born d 1 – 63			100
% calves born d 63+			0
Weaning Data			
Avg. weaning weight	564	530	490
Pounds weaned/ exposed female	503	418	378

CHAPS™ <http://www.chaps2000.com/benchmarks.htm>
 SW Cow-calf SPA summary <http://agrisk.tamu.edu/beef-cow-calf-spa-ranch-economics-and-analysis/ranch-economics-and-analysis-and-beef-cow-calf-spa-information/>

causes for calf death loss. Information on pregnancy rate, pregnancy loss and calf death loss pin point the timing of losses so that producers know where to consider changes.

Another use of this data would be to estimate the change in management needed to improve pregnancy rate say 3% (i.e. more feed pre-calving). Then determine if the increase in pounds weaned per cow exposed would be sufficient to pay for the management change.

Measuring and monitoring reproductive losses over time is key to finding and correcting problems before they become even bigger problems. The example shown in Table 1 is simplified as some herds would need to adjust the cows exposed number based on females that move in or out of the herd, particularly in a drought year. There are SPA guidelines for doing so and spreadsheet options available to help with calculations. Contact Sandy Johnson for assistance getting started at sandyj@ksu.edu or 785-462-6281 .

Resources and decision tools available to cattle producers

Glynn Tonsor, livestock marketing specialist

To succeed in today's cattle business it is vital to understand the comparative position of one's operation, to be aware of broader industry trends and issues, and to make use of available resources designed to aid management decisions. This last point is the main purpose of this commentary – to call for increased attention to the resources available to cattle producers on www.AgManager.info.

The Department of Agricultural Economics at Kansas State University uses the AgManager website as its flagship website for disseminating information to agricultural producers. There truly is a wealth of information spanning from more immediate, status of today's agricultural markets type discussions to very detailed research summaries on key economic issues that contributors have lead or believe would benefit producers by wider dissemination.

An entire section of our website (<http://www.agmanager.info/Tools/default.asp#LIVESTOCK>) is devoted to Excel based decision tools aimed at improving managerial decisions. Given the time of year, situation faced by many producers following this summer's drought, pending decisions regarding possible cow-herd expansion, etc. here are some important resources available to livestock producers:

KSU-SilageValue

Estimates the value of corn (or grain sorghum) silage based upon price of grain, harvesting costs, and nutrients removed.

KSU-Cow Wintering Costs

Estimates the costs of overwintering and calving out beef cows.

SUPPCOST

Evaluates the total costs of various protein supplement programs for cow/calf and stocker producers.

KSU-Beef Replacements

Evaluates the economic value of purchasing beef replacement females.

KSU-Graze

Determines equitable rental fees for grazing cattle.

In addition to the Excel based decision aides, our AgManager website provides a host of other regularly updated resources designed for cattle producers including:

Price and/or net return information

Calf price projections: <http://www.agmanager.info/livestock/marketing/graphs/cattle/prices/default.asp>

Stocker value of gain projections: <http://www.agmanager.info/livestock/marketing/graphs/cattle/prices/VOG.asp>

Feedlot returns: <http://www.agmanager.info/livestock/marketing/outlook/newsletters/FinishingReturns/default.asp>

Historical and Projected Budget examples: <http://www.agmanager.info/livestock/budgets/projected/default.asp>

Weekly commentary in the form of K-State Radio Network livestock market outlook interviews and "In the Cattle Markets" newsletters: <http://www.agmanager.info/livestock/marketing/outlook/newsletters/default.asp>

In addition to these highlighted resources, there are a host of fact sheets, short videos, etc. designed to provide cattle producers with additional important information regarding their operation and industry. You can also find a copy of most presentations I provide and contact information for me on AgManager (<http://www.agmanager.info/about/contributors/individual/tonsor.asp>). If I can be of assistance in initiating further use of these highlighted resources, please feel free to contact me. After all, the hope of this short piece is to further call attention to the wealth of information maintained on AgManager.info and new knowledge only has real impact if it reaches (and is utilized) by those "on the ground" who can put it to practice.



Nitrate issues continue for fall

Sandy Johnson, livestock specialist

Nitrates continue to be a concern for livestock producers as they deal with limited feed supplies over the fall and winter. Concentrations of nitrates can change as long as the plant is still growing and can respond to available moisture.

Fall cereal grains and cover crops - Wheat, rye, triticale and oats can accumulate nitrates. Test results have shown high nitrates this fall, and forages should not be grazed without testing for nitrates. This would include those that overwinter and might be grazed or hayed in the spring. Some of the brassicas such as turnips and radishes have had levels so high that their use for livestock feed will not be an option.

Crop residues - If an average or better grain yield was harvested, nitrates are less likely to be a problem in the crop residue left behind. However regrowth or volunteer growth in fields where grain production levels were substandard may contain problem levels of nitrate due to excess N fertilizer remaining in the soil. Sample the plant material you expect animals to graze, and in the case of fields with highly variable growth, collect separate samples that represent the different growth and maturity levels attained.

Baled forages with high nitrates - Sample each field or lot separately, because different fields or cuttings may have different nitrate levels present. The more samples you collect the better information you will have to make decisions. Nitrate concentrations tend to be highly variable within a field which can be reflected in individual bales. Storage will not decrease the nitrate concentration in baled forage.

The same sample that is used for a nitrate test can return information on protein and energy content. Corn hay baled earlier this summer is likely to be much higher in quality than corn residue baled after grain harvest. Applying the forage test information to a plan for feeding is an easy return on investment.

High nitrate feeds should be mixed with other feedstuffs to reduce the total nitrate concentration in the diet. Young, pregnant and stressed animals are more susceptible to nitrate toxicity. Make sure to consider nitrates from all components of the diet. This includes the water source. Introduce the high nitrate feed gradually over several days. Avoid situations where a large intake of

high nitrate feed may occur in one meal. Over time, animals can adjust to higher levels in the diet. Feeding smaller amounts several times a day can be used to adapt cattle to nitrates. If grazing, gradually increase hours of access to the high nitrate feed.

A few pounds of grain (2-5 lbs) in the ration will dilute the nitrate in the total ration and provide the carbohydrates for bacteria to quickly convert the nitrogen into ammonia. Mixing of the ration should be thorough enough so that one animal does not have the opportunity to over consume the high nitrate component. Reduce the amount of the high nitrate component in the mix and begin a process of working back up if winter storms alter feeding patterns.

Silage - Test silage for nitrates before feeding. Silage can still contain toxic levels if the initial level was very high. Nitrates are reduced during ensiling however the reduction can range from 20 to 80%. Forage that was dry going into the silage pile may only have a 20% reduction.

Green forages generally provide the needed Vitamin A for cattle diets, however animal stores can be depleted in two to six months. High nitrates in feedstuffs may increase the requirement for Vitamin A. Given these considerations, providing supplemental vitamin A makes good sense and is not expensive to do. See March 2007 Beef tips for more on Vitamin A deficiency.

Horses - Horses are not nearly as susceptible to nitrate toxicity as ruminants. Some conversion of nitrate to nitrite occurs in the cecum but at a much lower rate than in ruminants. Pregnant mares can tolerate much higher levels than cattle but there is no published data on actual levels that horses can tolerate. Nitrate poisoning that does occur in horses happens more often in association with accidental fertilizer spills or water contamination.

This year has been abundant in nitrate challenges for producers. Incorporating high nitrate feeds into cattle diets can be done but it will require good management and attention to details.

“Avoid situations where a large intake of high nitrate feed may occur in one meal.”