



F*ocus on Feedlots* is a monthly publication that summarizes feedlot performance and closeout data from nine cooperating commercial cattle feeding operations in Kansas. The annual review summarizes monthly reports from 2014, 2015, and 2016 that document annual and seasonal trends in cattle performance, cost of gain, and commodity prices for corn and alfalfa. Monthly reports are online at www.asi.k-state.edu/about/newsletters/focus-on-feedlots/.

Annual Closeout Summary: Steers

Year	Total Head	In Weight ³	Final Weight	Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Cost of Gain/Cwt
2016	319710	824 (789-850)	1421 (1388-1445)	159 (150-169)	3.66 (3.45-3.83)	6.04 (5.88-6.23)	1.36 (1.03-1.72)	\$77.32 (69.74-81.87)
2015	277107	815 (784-848)	1416 (1367-1472)	165 (153-173)	3.56 (3.34-3.79)	6.14 (5.91-6.38)	1.50 (1.09-1.80)	\$85.16 (81.07-89.45)
2014	256612	799 (750-833)	1390 (1345-1421)	159 (149-170)	3.67 (3.39-3.81)	5.97 (5.77-6.18)	1.27 (0.90-1.64)	\$92.35 (84.50-97.66)

In 2016, participating feedlots marketed 319,710 steers, approximately 42,000 more steers than were marketed in 2015. In weights remained steady, averaging 824 lbs. Final weights of steers were notably greater, averaging 1,416 lbs and 1,421 lbs in 2015 and 2016 respectively, compared to the 1,390 lbs reported in 2014. Although exit weights remained steady, total

days on feed was reduced by 6 days. Average daily gain was slightly greater and feed conversion was improved in 2016. Death loss was lower at 1.36% in 2016 relative to the 1.50% reported in 2015. Reported total cost of gain averaged \$77.32/cwt in 2016, which was \$7.84/cwt lower than 2015 and \$15.03/cwt lower than 2014.

Annual Closeout Summary: Heifers

Year	Total Head	In Weight ³	Final Weight	Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Cost of Gain/Cwt
2016	267083	762 (719-797)	1282 (1234-1324)	154 (142-169)	3.32 (3.19-3.60)	6.28 (6.06-6.39)	1.46 (1.01-2.21)	\$81.27 (72.17-84.76)
2015	281097	736 (690-779)	1266 (1241-1303)	165 (156-189)	3.14 (2.96-3.33)	6.40 (6.25-6.63)	1.62 (1.15-2.09)	\$90.02 (86.00-93.10)
2014	319064	730 (689-775)	1246 (1215-1282)	154 (138-165)	3.28 (3.07-3.55)	6.21 (6.05-6.34)	1.60 (1.16-2.49)	\$97.91 (91.75-101.99)

The number of heifers marketed was lower in 2016 with approximately 14,000 fewer heifers being marketed in 2016 than 2015 and 51,000 fewer than 2014. Heifer in weights were greater, averaging 762 lbs in 2016. Final weights of heifers were on average 16 lbs greater in 2016 at 1,282 lbs, compared to 1,266 lbs in 2015 and 1,246 lbs in 2014. Heifer days on feed were reduced by 11 days in 2016 to 154 days, which is similar to what was reported in 2014. Heifer

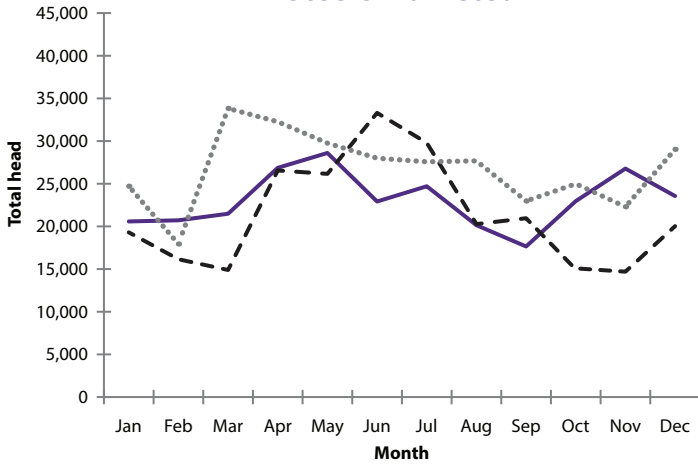
average daily gain and feed conversion were slightly improved. Death loss was reduced to 1.46% in 2016 relative to the 1.62% reported in 2015. Total cost of gain for heifers was \$8.75/cwt lower in 2016 than 2015. Heifer cost of gain was \$3.95/cwt greater on average than that of steers, \$81.27/cwt versus \$77.32/cwt.

Annual charts

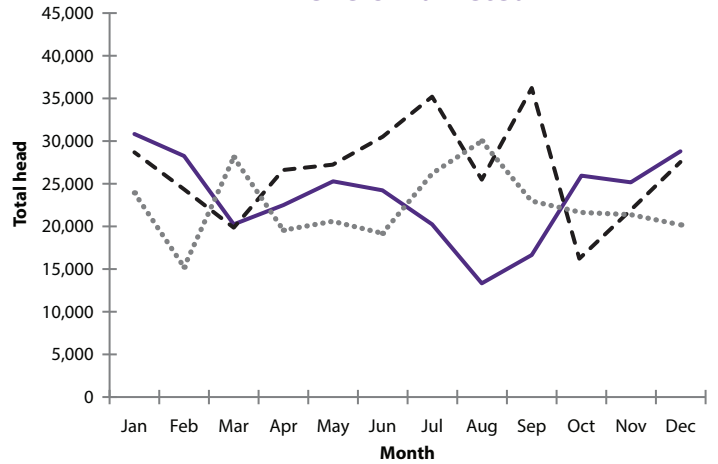
The reported monthly values obtained for feedlot performance, cost of gain, and commodity prices for 2014, 2015, and 2016 are illustrated in the following figures.



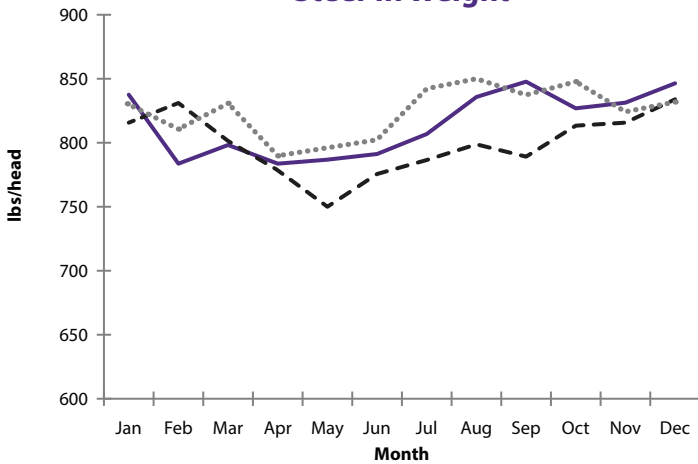
Steers Marketed



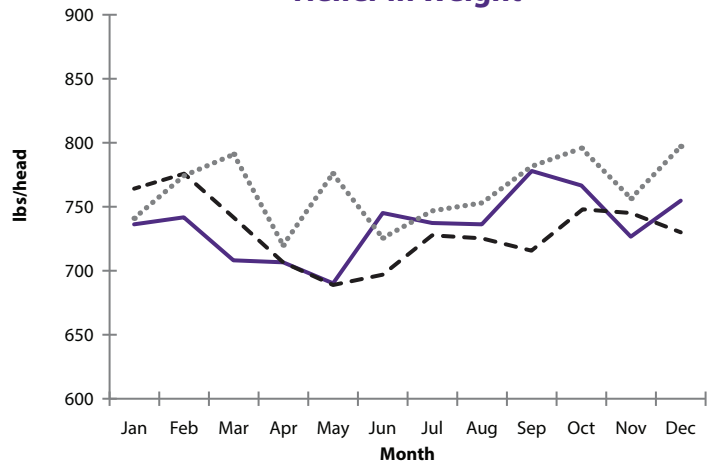
Heifers Marketed



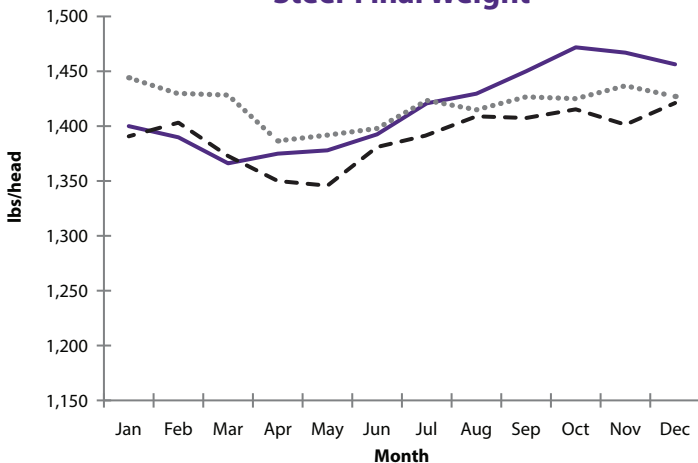
Steer In Weight



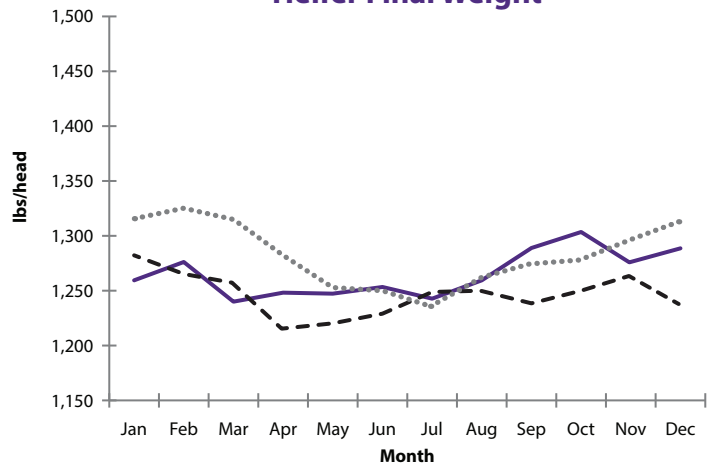
Heifer In Weight



Steer Final Weight

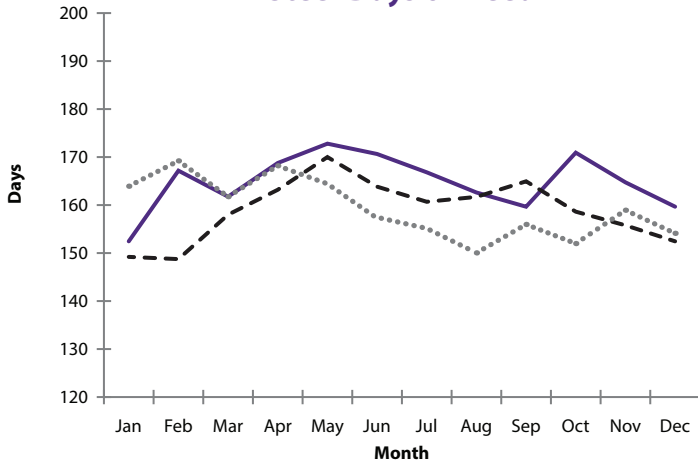


Heifer Final Weight

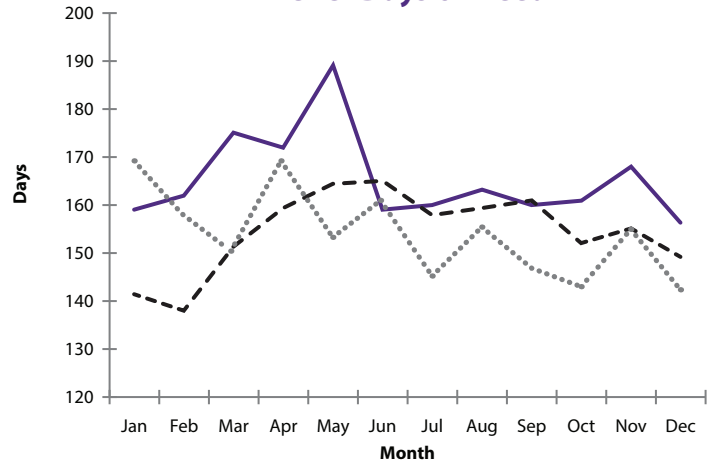




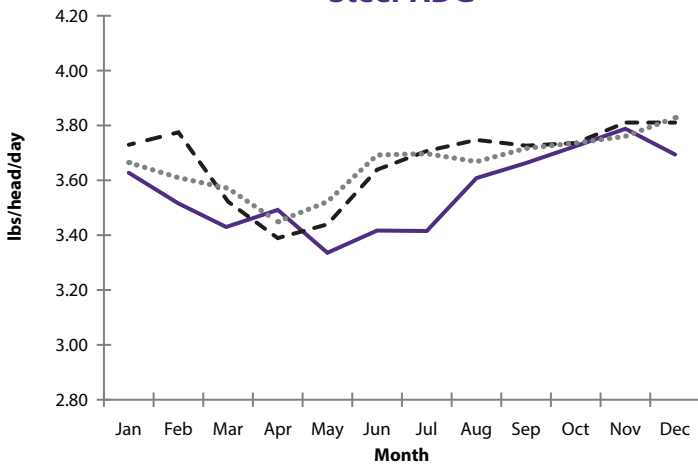
Steer Days on Feed



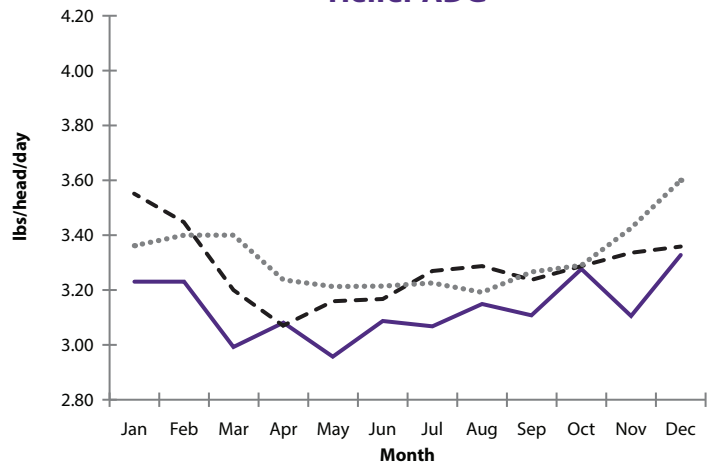
Heifer Days on Feed



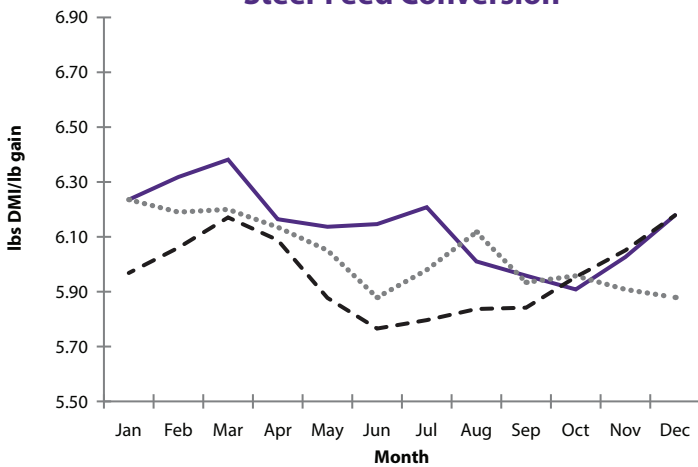
Steer ADG



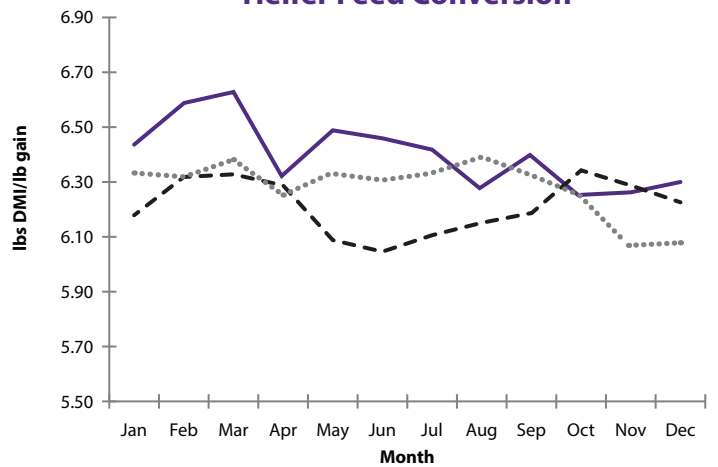
Heifer ADG



Steer Feed Conversion

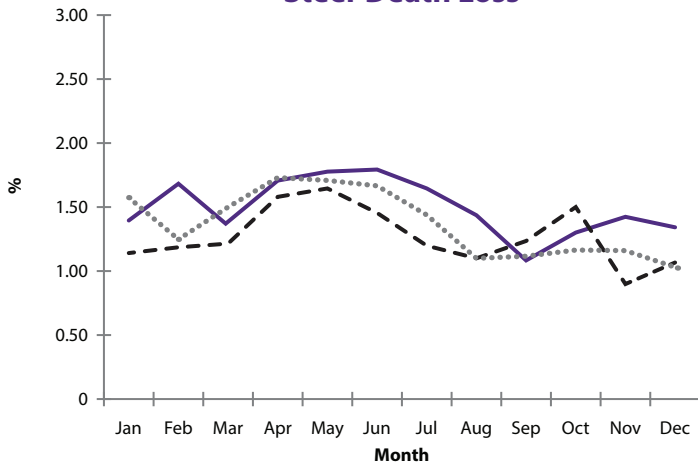


Heifer Feed Conversion

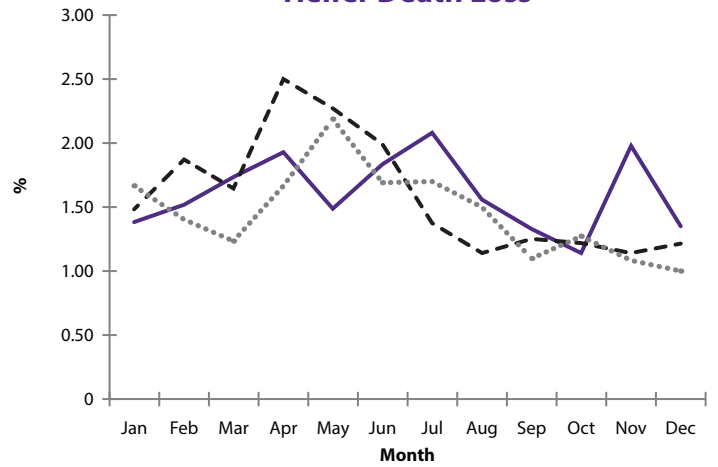




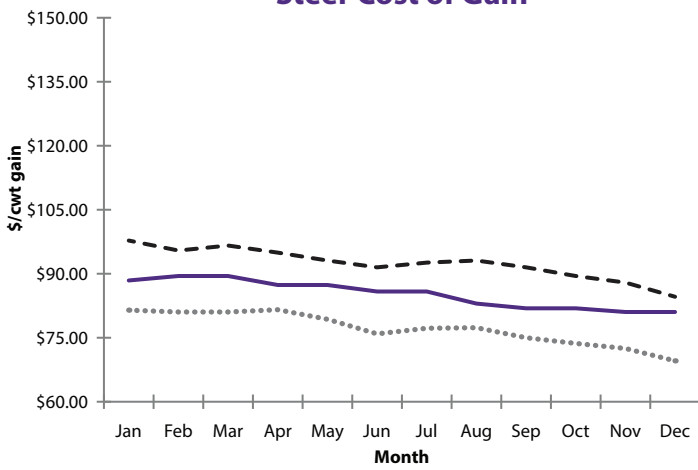
Steer Death Loss



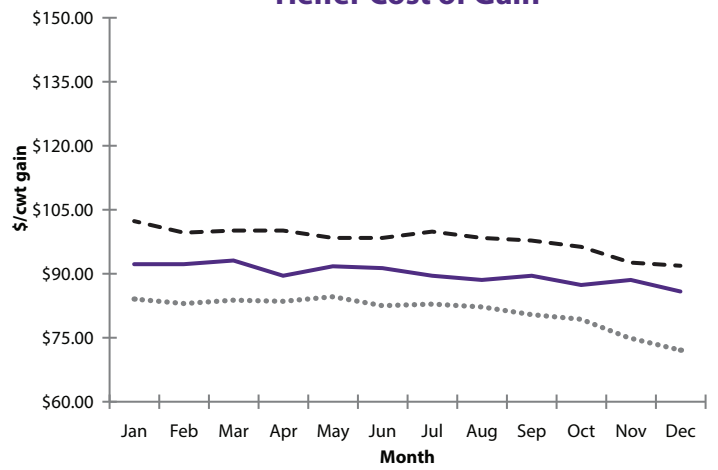
Heifer Death Loss



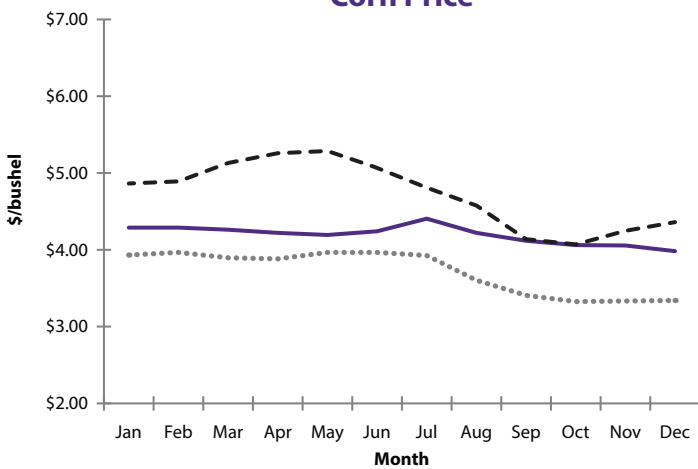
Steer Cost of Gain



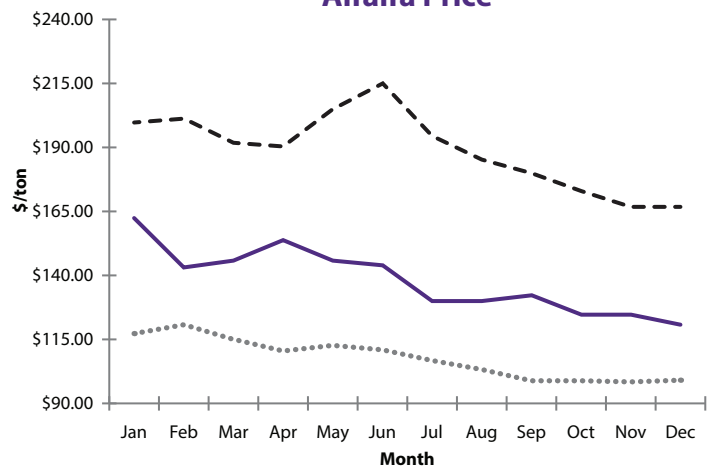
Heifer Cost of Gain



Corn Price



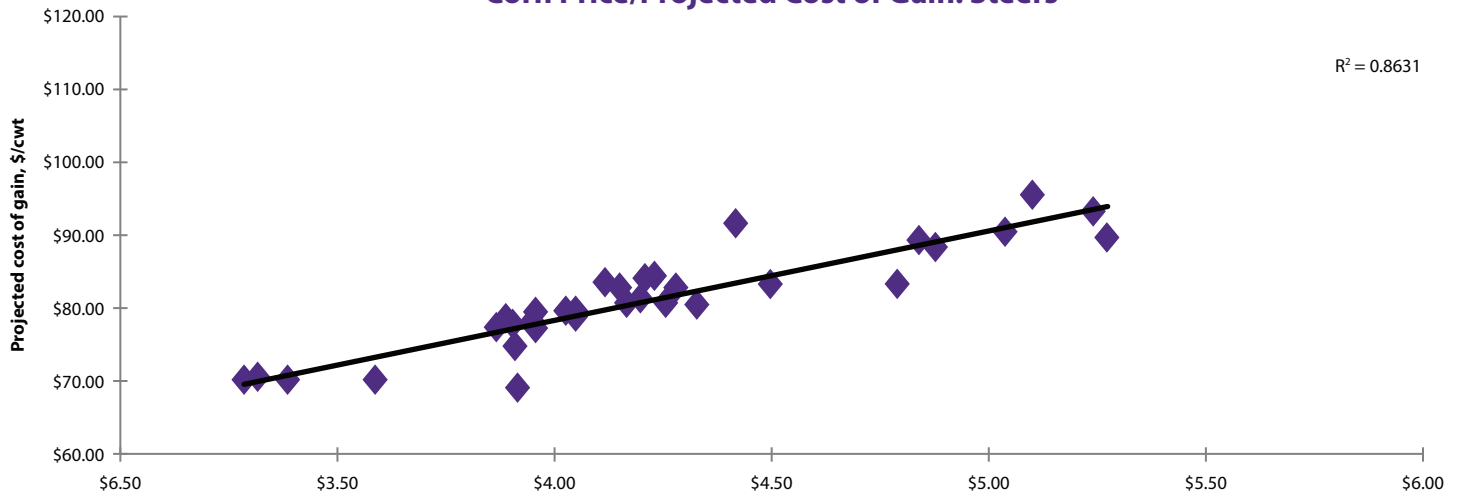
Alfalfa Price



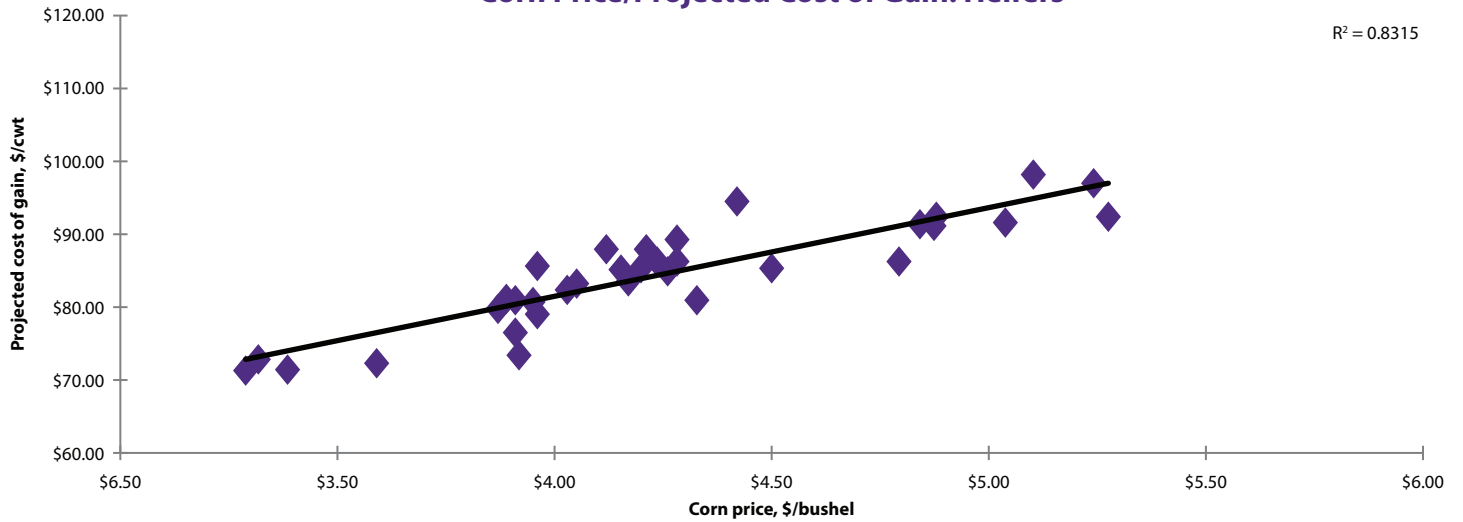
Projected cost of gain

The relationship between reported corn price and projected cost of gain for steers and heifers for 2014, 2015, and 2016 is shown in the following graphs.

Corn Price/Projected Cost of Gain: Steers



Corn Price/Projected Cost of Gain: Heifers



This relationship is expressed by the following formulas:

$$\text{Projected Steer Cost of Gain (\$/cwt)} = \$29.83 + (\$12.16 \times \text{Corn Price}).$$

$$\text{Projected Heifer Cost of Gain (\$/cwt)} = \$32.26 + (\$12.32 \times \text{Corn Price}).$$

This relationship may be used to forecast the projected cost of gain if corn price is known. For example, when corn is \$3.50/bushel, cost of gain for steers

equals \$72.39/cwt ($\$29.83 + \$12.16 \times \3.50). Based on this formula, cost of gain will increase \$12.16/cwt for every \$1.00 per bushel increase in the price of corn. The incremental cost of gain for heifers is slightly higher (\$12.32 vs. \$12.16) for every \$1.00 per bushel increase in the price of corn. The table below lists the projected cost of gain at various corn prices from \$2.00 to \$7.00 per bushel. The intercept values (\$29.83 and \$32.26 for steers and heifers respectively) reflect other costs associated with feeding cattle such as labor, equipment, and facilities.

Projected Cost of Gain for Steers and Heifers Based on Corn Price

Corn Price (\$/bu.)	Steer Cost of Gain (\$/cwt)	Heifer Cost of Gain (\$/cwt)
\$2.00	\$54.15	\$56.90
\$2.50	\$60.23	\$63.06
\$3.00	\$66.31	\$69.22
\$3.50	\$72.39	\$75.38
\$4.00	\$78.47	\$81.54
\$4.50	\$84.55	\$87.70
\$5.00	\$90.63	\$93.86
\$5.50	\$96.71	\$100.02
\$6.00	\$102.79	\$106.18
\$6.50	\$108.87	\$112.34
\$7.00	\$114.95	\$118.50

Closeout figures are the means of individual monthly averages and include feed, yardage, processing, medication, death loss and usually sold FOB the feedlot with a 4% pencil shrink. Interest charges normally are not included.

Our appreciation to these Kansas feed yards for providing this information:

Brookover Ranch Feed Yard

Kearny County Feeders

Decatur County Feed Yard

Poky Feeders

Deseret Cattle Feeders

Pratt Feeders

Hoxie Feed Yard

Supreme Cattle Feeders

HyPlains Feed Yard

In weight = reported average initial weight of cattle marketed in the reporting month.

To learn more about *Focus on Feedlots* or to receive monthly reports, contact:

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