K-STATE
Research and Extension

Focus on Feedlots

Kansas Feedlot Performance and Feed Cost Summary
2019 Annual Review

Focus on Feedlots is a monthly publication that summarizes feedlot performance and closeout data from the six cooperating Kansas commercial cattle feeding operations listed at the end of this publication. The annual review summarizes monthly reports from 2017, 2018, and 2019 that document annual and seasonal trends in cattle performance, cost of gain, and commodity prices (corn and alfalfa). Monthly reports can be found online at *Focus on Feedlots*.

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

Annual Closeout Summary: Steers[1]

Year	Total Head	In Weight[2]	Final Weight	Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Cost of Gain/ Cwt
2019	291,127	771 (731-821)	1397 (1,344-1,464)	178 (161-191)	3.50 (3.13-3.85)	6.37 (6.03-7.08)	1.72 (1.40-2.34)	$84.37 (81.61-91.67)
2018	349,595	779 (738-821)	1398 (1,356-1,444)	173 (163-182)	3.54 (3.34-3.66)	6.12 (5.96-6.34)	1.58 (1.27-2.12)	$78.10 (74.87-80.31)
2017	358,092	796 (752-861)	1387 (1,332-1,429)	164 (142-174)	3.57 (3.21-3.81)	6.11 (5.94-6.34)	1.52 (1.16-2.43)	$74.34 (71.83-77.60)

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

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

In 2019, participating feedlots marketed 291,127 steers, or approximately 58,000 fewer steers than in 2018. Both in weights and final weights were similar to what was reported in previous years. In weights averaged 771 lbs and final weights averaged 1,397 lbs in 2019, 1,398 lbs in 2018, and 1,387 lbs in 2017. Steers were on feed approximately 178 days, an increase of 5 days from 2018. Average daily gain and feed conversion were similar across years. However, death loss increased to 1.72% relative to the 1.58% reported in 2018 and 1.52% reported in 2017. Reported total cost of gain averaged $84.37/cwt in 2019, an increase of $6.27 over the $78.10/cwt reported in 2018.

Annual Closeout Summary: Heifers[1]

Year	Total Head	In Weight[3]	Final Weight	Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Cost of Gain/ Cwt
2019	198,769	704 (649-759)	1265 (1,220-1,314)	175 (159-194)	3.20 (2.88-3.78)	6.61 (6.28-7.31)	2.01 (1.48-2.75)	$89.48 (85.30-95.11)
2018	225,752	733 (689-767)	1272 (1,250-1,308)	166 (158-180)	3.19 (3.10-3.37)	6.44 (6.24-6.71)	1.75 (1.26-2.35)	$83.36 (78.52-88.20)
2017	275,542	729 (696-760)	1252 (1,202-1,292)	160 (149-171)	3.23 (3.00-3.49)	6.37 (6.13-6.53)	1.64 (1.34-1.93)	$78.10 (75.40-80.64)

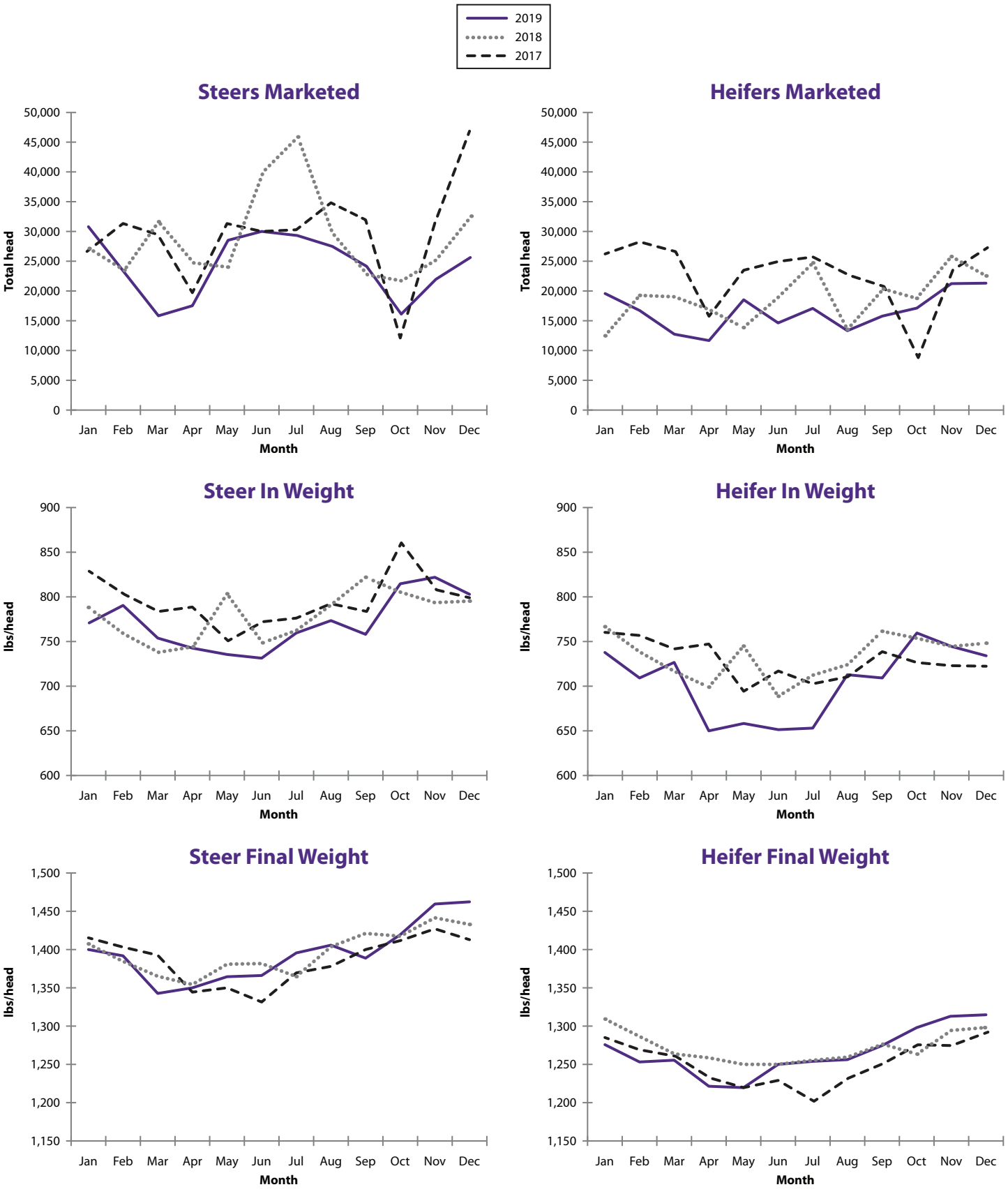
[1] Closeout figures are the means of individual monthly averages and include feed, yardage, processing, medication, and death loss and usually sold FOB the feedlot with a 4% pencil shrink. Interest charges normally are not included.

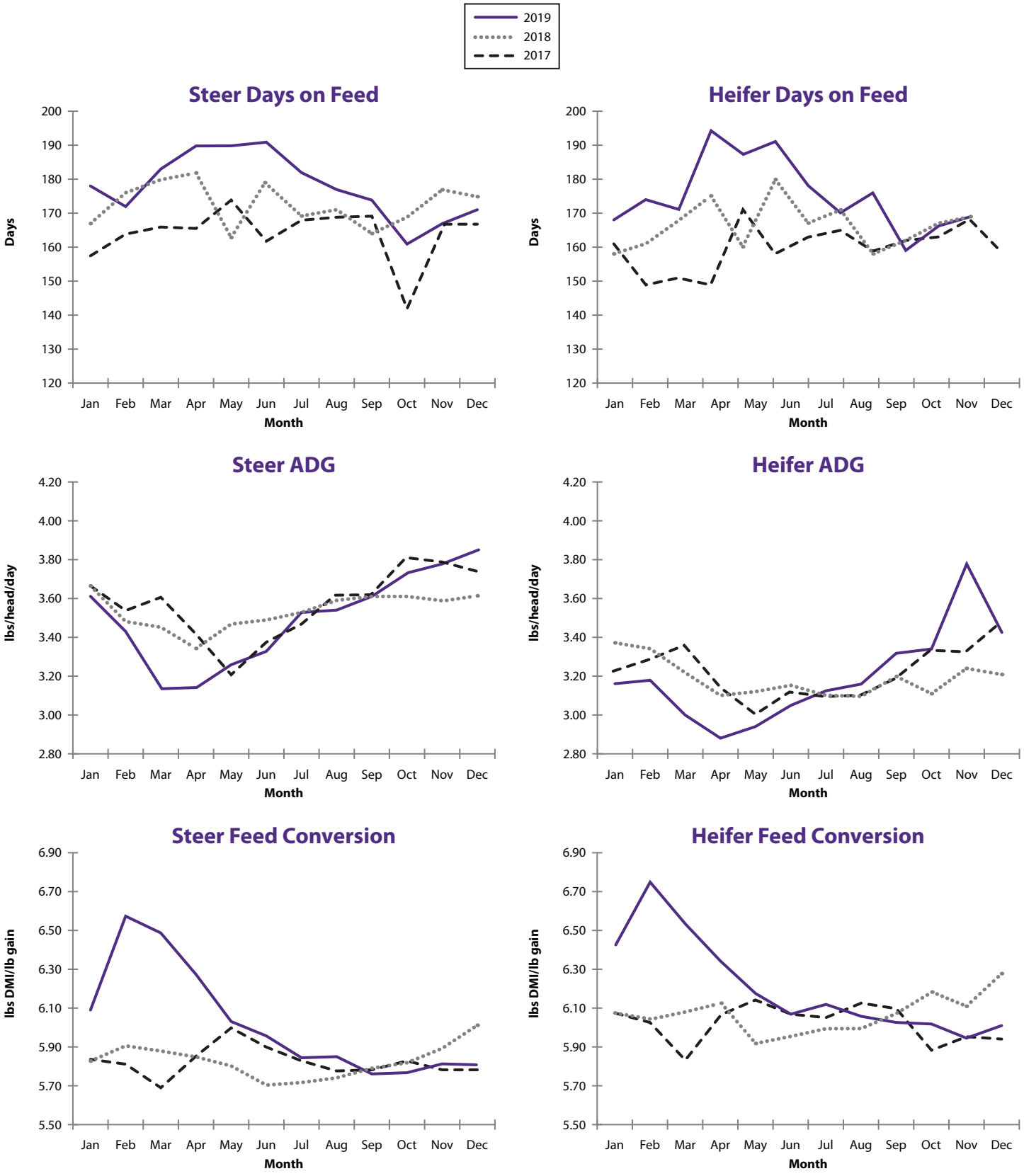
The number of heifers marketed decreased in 2019 with more than 26,900 fewer heifers being marketed in 2019 than 2018. Heifer in weights were slightly lower, averaging 704 lbs in 2019. Final weights of heifers were 7 lbs lower on average in 2019 at 1,265 lbs, compared to 1,272 lbs in 2018. Heifer days on feed increased to 175 days, a 9-day increase relative to the 166 days reported in 2018.

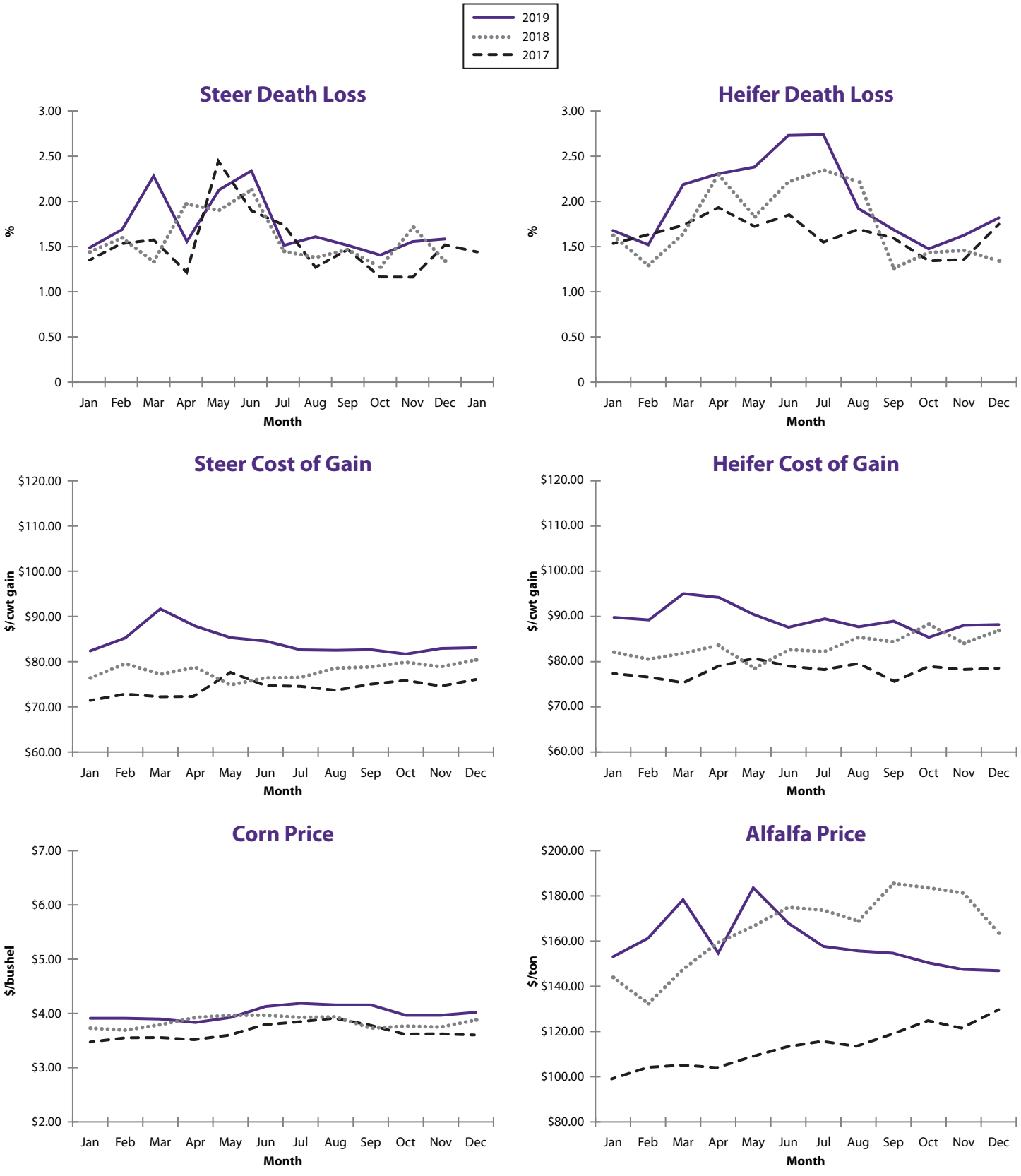
Heifer average daily gain was similar across years, but feed conversion increased relative to 2018 and 2017. Death loss increased to 2.01% relative to 1.75% reported in 2018 and the 1.64% death loss reported in 2017. Total cost of gain increased to $89.48/cwt. in 2019. Heifer cost of gain was $5.11/cwt greater on average than cost of gain for steers, with $89.48/cwt for heifers versus $84.37/cwt for steers.

Annual charts

The figures show reported monthly values for feedlot performance, cost of gain, and commodity prices for 2017, 2018, and 2019.

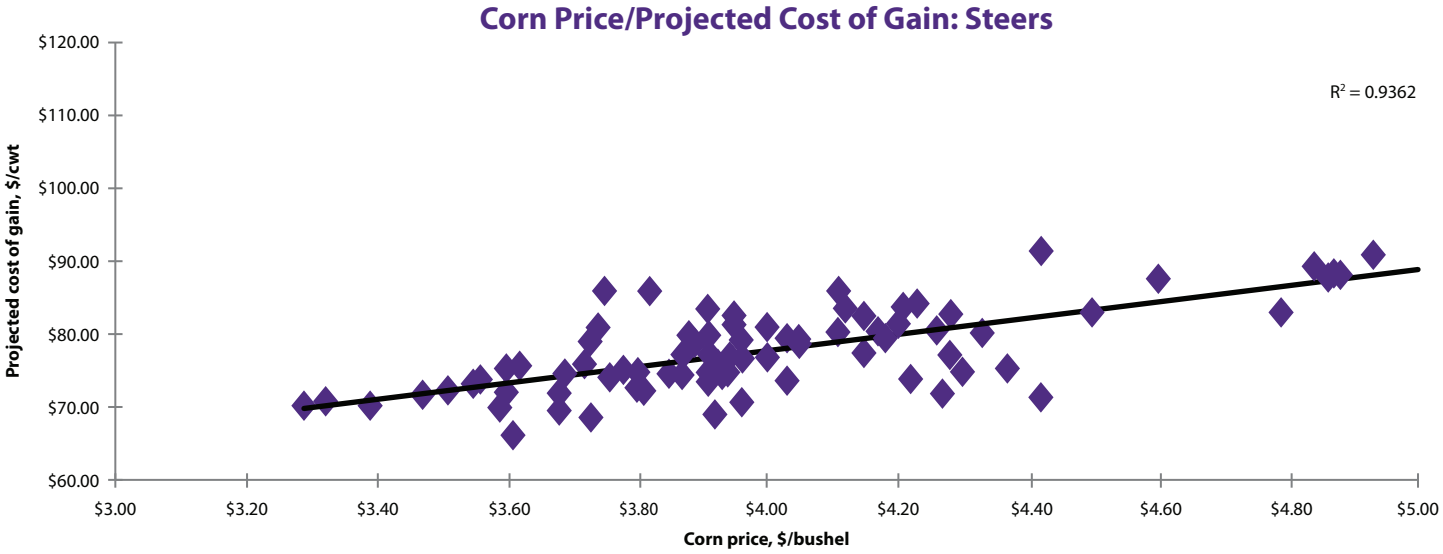


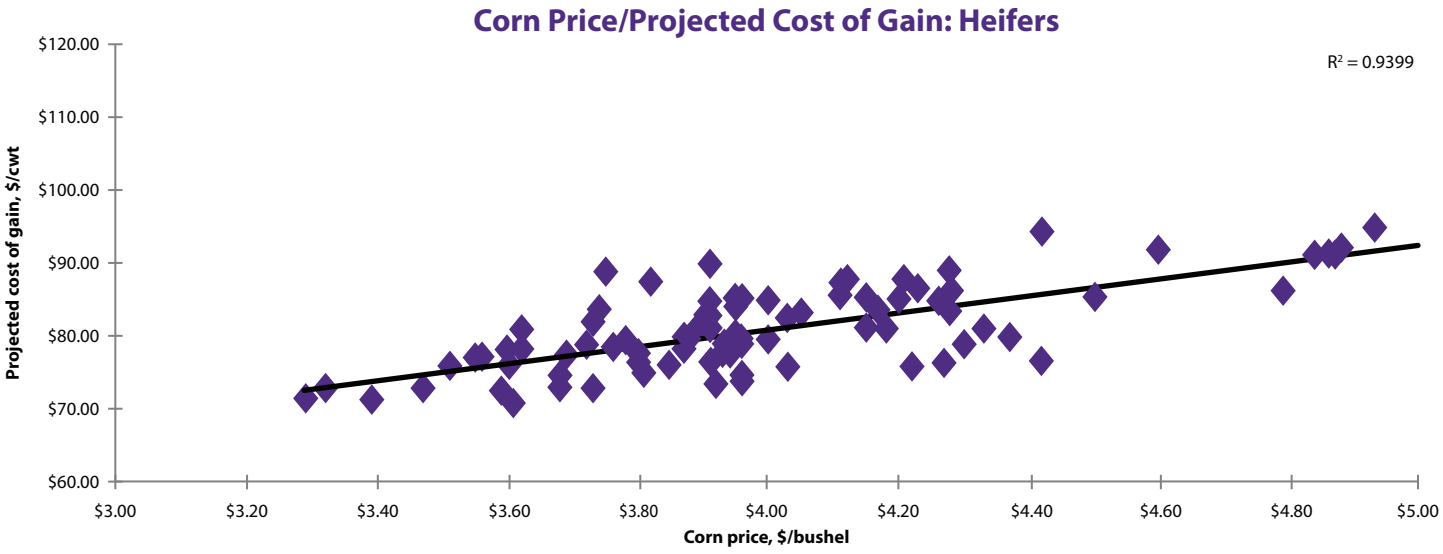

2019
2018
2017
Steer Days on Feed
Days
200
190
180
170
160
150
140
130
120
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Heifer Days on Feed
Days
200
190
180
170
160
150
140
130
120
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Steer ADG
lbs/head/day
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Heifer ADG
lbs/head/day
4.20
4.00
3.80
3.60
3.40
3.20
3.00
2.80
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Steer Feed Conversion
lbs DMI/lb gain
6.90
6.70
6.50
6.30
6.10
5.90
5.70
5.50
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Heifer Feed Conversion
lbs DMI/lb gain
6.90
6.70
6.50
6.30
6.10
5.90
5.70
5.50
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


2019
2018
2017
Steer Death Loss
%
3.00
2.50
2.00
1.50
1.00
0.50
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec Jan
Month
Heifer Death Loss
%
3.00
2.50
2.00
1.50
1.00
0.50
0
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Steer Cost of Gain
$/cwt gain
$120.00
$110.00
$100.00
$90.00
$80.00
$70.00
$60.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Heifer Cost of Gain
$/cwt gain
$120.00
$110.00
$100.00
$90.00
$80.00
$70.00
$60.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Corn Price
$/bushel
$7.00
$6.00
$5.00
$4.00
$3.00
$2.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month
Alfalfa Price
$/ton
$200.00
$180.00
$160.00
$140.00
$120.00
$100.00
$80.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

Ten-year projected cost of gain, corn price relationship

The graphs show the relationship between reported corn price and the projected cost of gain for steers and heifers for the past 10 years (2009-2019).





This relationship is expressed by the following formulas:

Projected Steer Cost of Gain ($/cwt) = $33.28 + ($11.16 x Corn Price).

Projected Heifer Cost of Gain ($/cwt) = $34.83 + ($11.57 x Corn Price).

This relationship can be used to forecast the projected cost of gain if the corn price is known. For example, when corn is $3.50/bushel, cost of gain for steers equals $72.34/cwt ($33.28 + $11.16 x $3.50). Based on this formula, cost of gain will increase $11.16/cwt for every $1.00 per bushel increase in the price of corn. The incremental cost of gain for heifers is slightly higher ($11.57 vs. $11.16) 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 ($33.28 and $34.83 for steers and heifers respectively) reflect other costs associated with feeding cattle (e.g., 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	$55.60	$57.97
$2.50	$61.18	$63.76
$3.00	$66.76	$69.54
$3.50	$72.34	$75.33
$4.00	$77.92	$81.11
$4.50	$83.50	$86.90
$5.00	$89.08	$92.68
$5.50	$94.66	$98.47
$6.00	$100.23	$104.25
$6.50	$105.81	$110.04
$7.00	$111.39	$121.61

Appreciation is expressed to these Kansas feed yards:

Brookover Ranch Feed Yard

Deseret Cattle Feeders

Hoxie Feed Yard

HyPlains Feed Yard

Poky Feeders

Pratt Feeders

For more information on *Focus on Feedlots* or to receive monthly reports, contact:

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