



Livestock Farm Management Update

March 20, 2002

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,
Kansas State University, March 20, 2002.

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Cattle Production Budgets and Returns

By Rodney Jones, Extension Livestock Production Economics

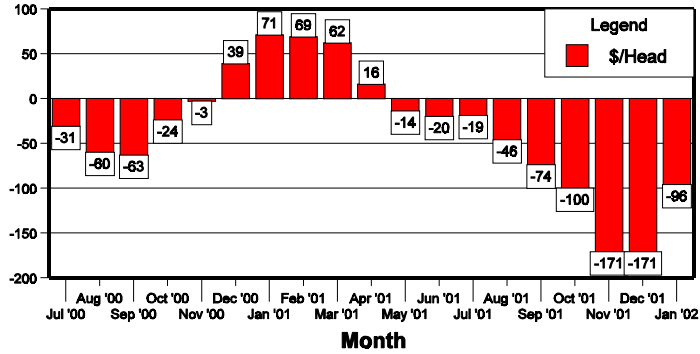
Based on this month's traditional cattle finishing budgets for 750 pound steers and 650 pound heifers, the expected break-even prices for March placements have decreased significantly relative to projections of the previous few months. The projected break-evens, for cattle expected to finish in about August, are in the \$67.50 to \$68.50 per cwt. range for steers and heifers. Average traditional weight feeder cattle prices have declined rapidly over the past few months. Feed grain prices declined over the past month, while hay and protein prices increased slightly. Feed conversions and average daily gains of March placed cattle are expected to be 3% to 4% better than annual averages. These improved performance expectations contribute to declining cost of gain projections, and ultimately are a factor in the declining break-even projections.

Combining the ration charge projection with March placement performance expectations results in a feeding cost of gain projection of \$44.70 per cwt. for traditional weight March steer placements, and \$47.58 per cwt. for traditional weight March heifer placements. I have lowered feeding cost of gain projections for cattle finished over the next several months, based on continued weak feed grain prices and exceptional winter feeding performance. The feeding cost of gain estimates depicted in the accompanying budgets are based on current feed prices and seasonal average performance. Alternative projections based on use-weighted futures based price projections for feed ingredients yield somewhat higher feeding cost of gain estimates. In addition to feed ingredients, yardage, processing, medication, and death loss are accounted for. Estimates are sensitive to changes in feed conversions, daily gains, grain prices, and hay prices. Feed conversions, grain prices, and hay

prices are positively related to feeding cost of gains. Based on spring performance estimates, each \$0.10 per bushel change in corn price changes feeding cost of gain by \$1.25 per cwt. Each \$10.00 per ton change in hay prices changes feeding cost of gain by \$0.48 per cwt. Feeding cost of gain changes by \$0.53 per cwt. for each 0.10 pound change in feed conversions and \$0.08 per cwt. for each 0.10 pound change in daily gains. Given the disparity between feeding cost of gain estimates based on current feed grain prices, and costs estimates based on projected future feed grain prices, risk averse feeders may want to "lock in" feed costs for summer feeding programs.

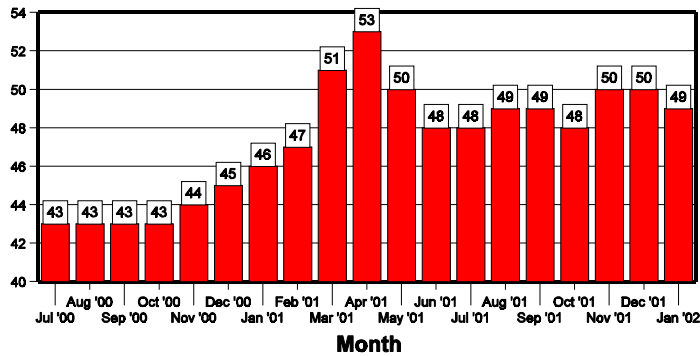
Calculated losses on January finished cattle came in strongly negative. The only "good" news can perhaps be found in the fact that calculated January returns were not quite as negative as I had projected a month ago, before all the data were available. The average January steer closeout returned about \$-95.58 per head, adding to the large losses throughout the fall of 2001. Current estimates suggest average returns of \$-56.00 per head on February closeouts, and average March finished cattle could lose between \$20.00 and \$30.00 per head. Earlier in March it appeared likely that April closeouts would generate positive returns for the average cattle finisher, based on futures based price projections. The rapid decline in the cattle futures price complex over the past few weeks now signals concern regarding the profit prospects of late spring and summer closeouts. Average break-evens for April finished cattle are projected to be around \$73.00 per cwt., declining to around the \$70.00 per cwt. level by June and July. Even considering these significantly lower break-evens, cash prices will need to be stronger than current futures based price forecasts would suggest for the average closeout to be profitable.

Monthly Returns for Finishing 700 to 800 Lb. Steers in Kansas



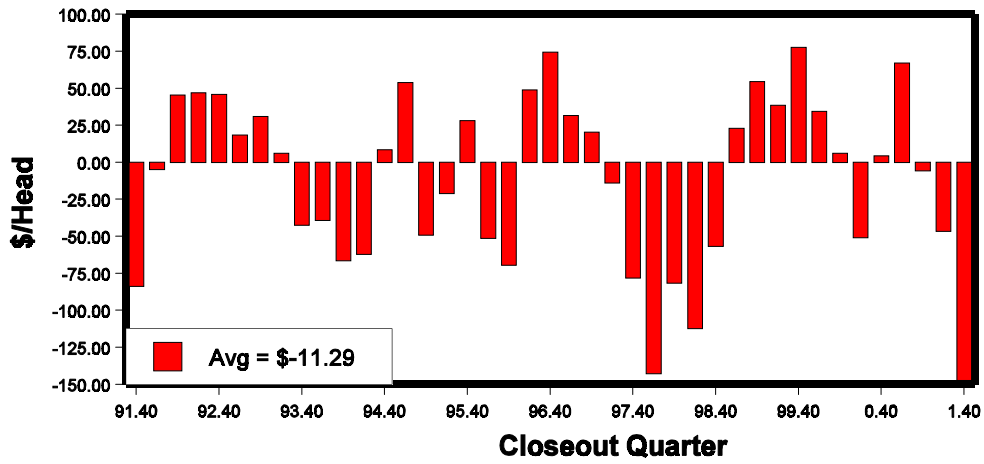
Source: KSU Cattle Return Series.

Monthly Feeding Cost of Gain 700 to 800 Lb. Steers in Kansas



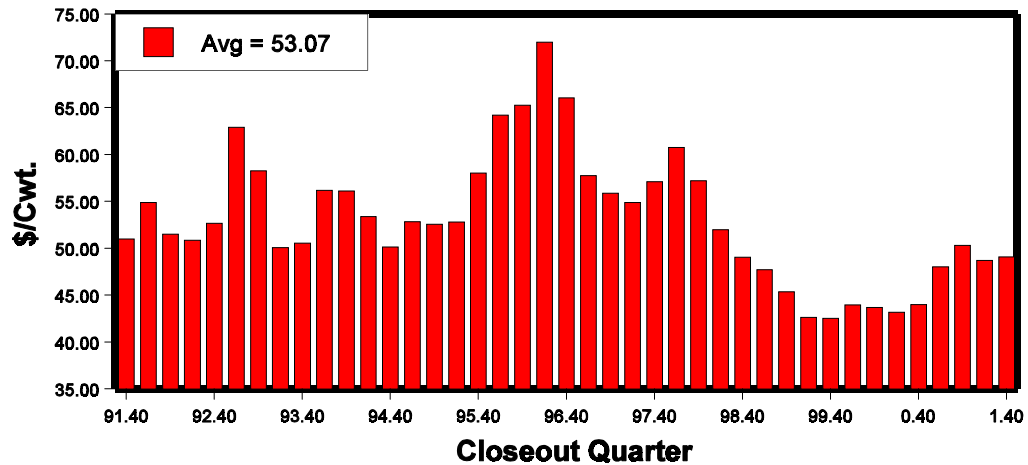
Source: KSU Cattle Return Series.

Quarterly Net Return for Finishing 700-800 Lb. Steers in Kansas



Source: KSU Cattle Return Series.

Quarterly Feeding Cost of Gain 700-800 Lb. Steers in Kansas



Source: KSU Cattle Return Series.

Commercial Feedlot Cattle Finishing Budget
March 2002 Placements (750 lb steers, 650 lb hfrs)

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) ¹	\$80.03	\$79.13
Interest rate	8.5%	8.5%
Ration charge (\$/ton) ²	\$100.18	\$100.18
Yardage charge	\$0.05	\$0.05
Beginning weight	750 lbs.	650 lbs.
Pay weight	1250 lbs.	1075 lbs.
Gain	500 lbs.	425 lbs.
Days on feed	147 days	146 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.39 lbs.	2.91 lbs.
Feed conversion (as fed)	7.92 lbs.	8.34 lbs.
Death loss (in conversion)	0.50%	0.50%
Cost Budgets	Steers	Heifers
Feeder		
1. Cost of feeder:	\$600.23	\$514.35
2. Interest on feeder:	\$ 20.62	\$ 17.49
Feed		
3. Total feed cost:	\$198.35	\$177.54
4. Interest on feed:	\$ 3.41	\$ 3.02
Other Costs		
5. Yardage Charge:	\$ 7.37	\$ 7.30
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$.37	\$.36
Breakeven selling price:	\$ 67.55	\$ 68.28
Total cost of gain/cwt:	\$ 48.82	\$ 51.70
Feeding cost of gain/cwt: ³	\$ 44.70	\$ 47.58

¹Feeder steer and heifer prices based on recent auction results at Winter Auction, Dodge City, Kansas.

²Ration charge of \$100.18 based on corn price of \$2.18/bu., milo price of \$3.32/cwt., alfalfa hay price of \$102.50/ton, supplement price of \$186.50/ton, and feed markup of \$20/ton. Corn price change of \$0.10/bu. changes ration cost \$1.80/ton. Milo price change of \$0.10/cwt. changes ration cost \$0.70/ton. Alfalfa hay price change of \$10/ton changes ration cost \$1.20/ton. Supplement price change of \$25/ton changes ration cost \$0.75/ton.

³Excludes interest on feeder.

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 750 lb. Steers

	Feeder purchase price				
	\$77.00	\$79.00	\$81.00	\$83.00	\$85.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$43.00	64.99	66.23	67.47	68.71	69.95
\$44.00	65.39	66.63	67.87	69.11	70.35
\$45.00	65.79	67.03	68.27	69.51	70.75
\$46.00	66.19	67.43	68.67	69.91	71.15
\$47.00	66.59	67.83	69.07	70.31	71.55
\$48.00	66.99	68.23	69.47	70.71	71.95
\$49.00	67.39	68.63	69.87	71.11	72.35

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$76.00	\$78.00	\$80.00	\$82.00	\$84.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$46.00	65.70	66.95	68.20	69.45	70.70
\$47.00	66.10	67.35	68.60	69.85	71.10
\$48.00	66.49	67.74	68.99	70.24	71.49
\$49.00	66.89	68.14	69.39	70.64	71.89
\$50.00	67.28	68.53	69.78	71.04	72.29
\$51.00	67.68	68.93	70.18	71.43	72.68
\$52.00	68.07	69.32	70.58	71.83	73.08

FEEDING COST OF GAIN FOR STEERS BY CLOSEOUT MONTH (\$/cwt.)

	% Change Previous Year	2002	2001	2000	1990-2000 Average
January	+ 5.6	49.08	46.44	43.11	53.49
February		50.00 ^P	46.97	43.76	55.45
March		50.00 ^P	50.69	44.97	55.96
April		49.00 ^P	52.64	44.55	54.70
May		47.50 ^P	50.08	43.29	53.42
June		46.50 ^P	48.20	43.20	51.56
July			48.42	43.01	50.29
August	+12.5		48.88	43.43	52.04
September	+13.2		48.77	43.10	51.07
October	+10.5		47.78	43.24	51.68
November	+13.5		49.98	44.05	51.84
December	+10.9		49.52	44.65	52.05

Source: Focus on Feedlots Newsletter, KSU Extension Animal Science and Cooperating Feedyards.

BREAKEVEN PRICES FOR FINISHING 700 TO 800 LB. STEERS (\$/cwt.)

	% Change Previous Year		2001	2000	1990-2000 Average
January	+ 3.5	75.49	72.93	65.68	71.42
February		76.05 ^P	72.93	67.47	71.84
March		75.67 ^P	74.90	68.15	71.65
April		73.08 ^P	76.74	69.61	71.27
May		71.00 ^P	76.16	71.27	71.00
June		69.85 ^P	74.85	71.72	70.21
July			72.47	69.99	69.50
August	+ 5.4		73.48	69.69	68.86
September	+ 6.5		74.39	69.82	68.54
October	+ 6.1		74.20	69.92	68.74
November	+ 6.8		77.46	72.56	70.60
December	+ 3.9		76.46	73.62	71.35

^P Values for this month are projected

Hog Production Budgets and Returns

The hog finishing budget projects the economic outcome of taking a 10 pound early weaned pig through a combination nursery and finishing phase. The total feeding time is projected to be 170 days, so pigs started in March would be expected to finish in September. Ten pound weaned pigs are priced into the nursery using a formula based on current milo prices, current soybean meal prices, and 6 month out hog futures prices. The calculated price for 10 lb. pigs in March decreased considerably from last month's calculation, to \$30.82 per pig. The decrease is due to the lower 6 month out hog futures price, and slightly higher soybean meal prices. Average Iowa direct weaned pig transfer prices also decreased somewhat over the past month, but are still significantly above the formula price. Alternative budget projections and sensitivity tables are included to assess the impact of alternative weaned pig prices on break-even projections.

The projected sale price needed to cover all costs associated with finishing formula priced early weaned pigs started on feed in March is \$41.04 per cwt. on a live weight basis, a reduction relative to the projection of last month. Pricing the weaned pig into the nursery-finish program at the mid-point of the recent Iowa reported cash transfer price (\$37.50) results in a projected break-even to cover all costs of \$44.03 per cwt. Cash bids for early weaned pigs in some cash transfer markets still reveal some apparent optimism regarding early fall hog prices.

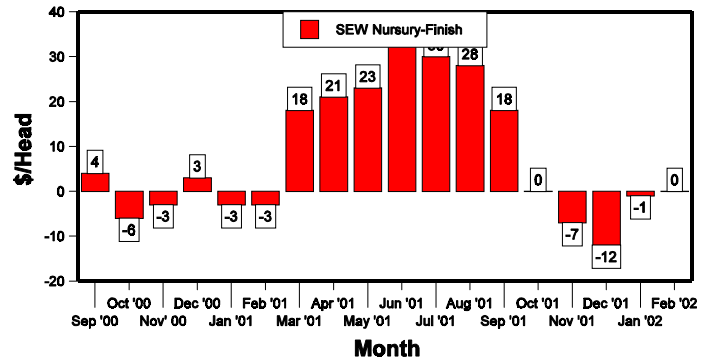
The example hog finishing budgets are calculated using a milo based feeding ration. Projected feed costs, based on current milo and supplement prices, are currently at

\$17.01 per cwt. of pork produced in the SEW nursery finish program. This is a slight increase from the feed cost projections of the last few months. Feed costs are sensitive to changes in milo and soybean meal prices. For example, a milo price change of \$0.10 per cwt. changes feed costs per cwt. by \$0.22. A soybean meal price change of \$10 per ton changes feed costs by \$0.28 per cwt. Soybean meal prices have increased somewhat over the past month, resulting in the raised feed cost projections.

Revised calculations of average returns to labor and management remained negative for hogs exiting Kansas SEW nursery-finish barns in January, however, returns were not as negative as earlier projected. Returns to labor and management averaged about \$-1.45 per pig for hogs finished in January. Current estimates suggest slightly positive returns to labor and management in February. Break-even prices to cover all costs for average producers are currently in the \$40.50 to \$41.00 per cwt. range on a live weight basis, but may increase later in the spring as higher valued weaned pigs begin to finish. Recent declines in futures based price projections have delayed the expected return to significant positive returns until early summer.

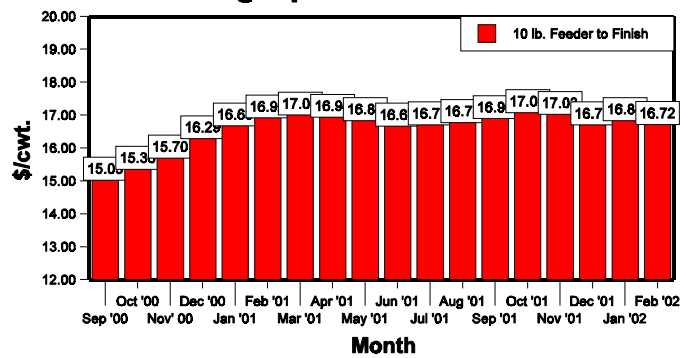
Projected break-evens for average Kansas farrow-to-finish producers are just under \$41.50 per cwt. on a live basis for pigs produced under current feed cost conditions. Futures based price projections suggest that average producers will earn modest profits, especially during the summer of 2002. Risk averse producers might consider current feed grain prices as opportunities to "lock in" low cost feeds for summer production.

Returns to Labor and Management Finishing Operations in Kansas



Source: KSU Swine Return Series.

Feed Costs Per Cwt. SEW Nursery Finishing Operations in Kansas



Source: KSU Swine Return Series.

SEW NURSERY- FINISHING BUDGET

March, 2002

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig ¹	\$30.82
Interest rate	9.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$3.32 / cwt.
Soybean meal price	\$161.50 / ton.

¹ Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

FEEDER	
1. Cost of weaned pig	\$30.82
2. Interest on weaned pig	\$ 1.29
FEED	
3. Grain	\$16.62
4. Soybean meal	\$10.42
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.79
OTHER VARIABLE COSTS	
8. Feed processing	\$ 2.99
9. Labor	\$ 2.88
10. Veterinary, drugs, and supplies	\$ 1.30
11. Utilities	\$ 0.50
12. Repairs	\$ 1.57
13. Miscellaneous	\$ 3.25
14. Interest on other variable costs	\$ 0.26
FIXED COSTS	
15. Buildings and equipment	\$11.97
Sale Price Needed to Cover Variable Costs	\$35.89
Sale Price Needed to Cover Total Costs	\$41.04
Feed Cost Per Cwt. of Pork Produced	\$17.01

SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$27.00	\$29.00	\$31.00	\$33.00	\$35.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$14.00	36.41	37.30	38.20	39.09	39.99
\$15.00	37.38	38.28	39.17	40.07	40.96
\$16.00	38.36	39.25	40.15	41.04	41.94
\$17.00	39.33	40.23	41.12	42.02	42.92
\$18.00	40.31	41.21	42.10	43.00	43.89
\$19.00	41.29	42.18	43.08	43.97	44.87
\$20.00	42.26	43.16	44.05	44.95	45.84

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$36.00	\$38.00	\$40.00	\$42.00	\$44.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$14.00	26.10	30.56	35.02	39.50	43.96
\$15.00	23.92	28.38	32.84	37.32	41.78
\$16.00	21.74	26.20	30.66	35.14	39.60
\$17.00	19.56	24.02	28.48	32.96	37.42
\$18.00	17.38	21.84	26.30	30.78	35.24
\$19.00	15.20	19.66	24.12	28.60	33.06
\$20.00	13.02	17.48	21.94	26.42	30.88