



Livestock Farm Management Update

January 14, 2002

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,
Kansas State University, January 14, 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 January placements have decreased significantly relative to projections of the previous few months. The projected break-evens, for cattle expected to finish in about June, are in the \$71.00 to \$72.00 per cwt. range for steers and heifers. Average traditional weight feeder cattle prices have declined somewhat in the face of large feedlot losses. Feed ingredient prices have remained consistent for the past several months. Performance expectations improve dramatically for cattle placed after the first of the year relative to fall placements. Both feed conversions and average daily gains of January placed cattle are expected to be about 1% better than annual averages, and improve even more for later spring placements.

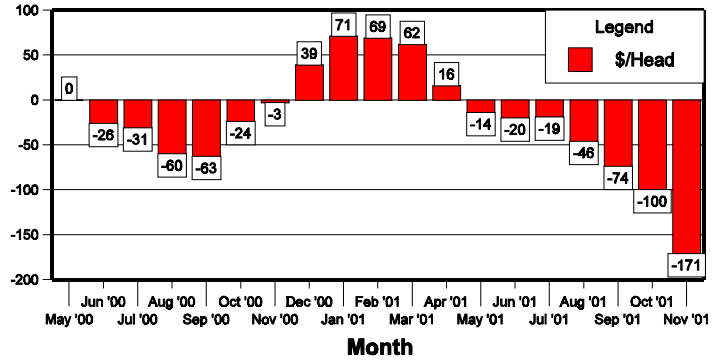
Combining the ration charge projection with January placement performance expectations results in a feeding cost of gain projection of \$47.89 per cwt. for traditional weight January steer placements, and \$50.20 per cwt. for traditional weight January heifer placements. These estimates represent declines of 15 to 20 % relative to the estimates of just a few months ago. The feeding cost of gain estimates depicted in the accompanying budgets are based on current feed prices and seasonal average performance. 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 winter performance estimates, each \$0.10 per bushel change in corn price changes feeding cost of gain by \$1.40 per cwt. Each \$10.00 per ton change

in hay prices changes feeding cost of gain by \$0.55 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. Unless feed ingredient prices increase dramatically, the feeding cost of gain projection will continue to decline into the spring placement months due to improving performance expectations.

Calculated losses on October and November finished cattle came in every bit as bad as projected. The average October steer closeout returned about \$-100.16 per head, and the average November steer closeout returned a dismal \$-171.36 per head. Current estimates suggest average returns of \$-150.00 per head on December closeouts, and losses in early January could average in the \$130.00 to \$140.00 per head range. Returns will improve, but continue in negative territory for the next few months. Current futures based price forecasts suggest that April prices may be closer to break-even levels, resulting in improved returns to cattle feeding by later in the spring. Current average break-even's are around \$77.00 per cwt., but will decline to around \$74.50 by April.

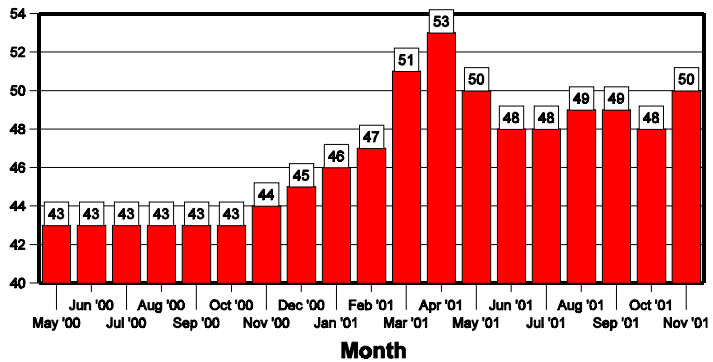
Winter months provide an the opportunity to carefully scrutinize all cattle enterprises from an economic perspective. For example, Kansas Standardized Performance Analysis (SPA) database summaries continue to reveal large differences in both production and costs among the state's cow-calf producers. Producers desiring assistance in evaluating the production and economic performance of their cattle enterprise, and comparisons with benchmarks in order to identify bottlenecks to profitability, can contact me through their local county extension office to find out more.

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



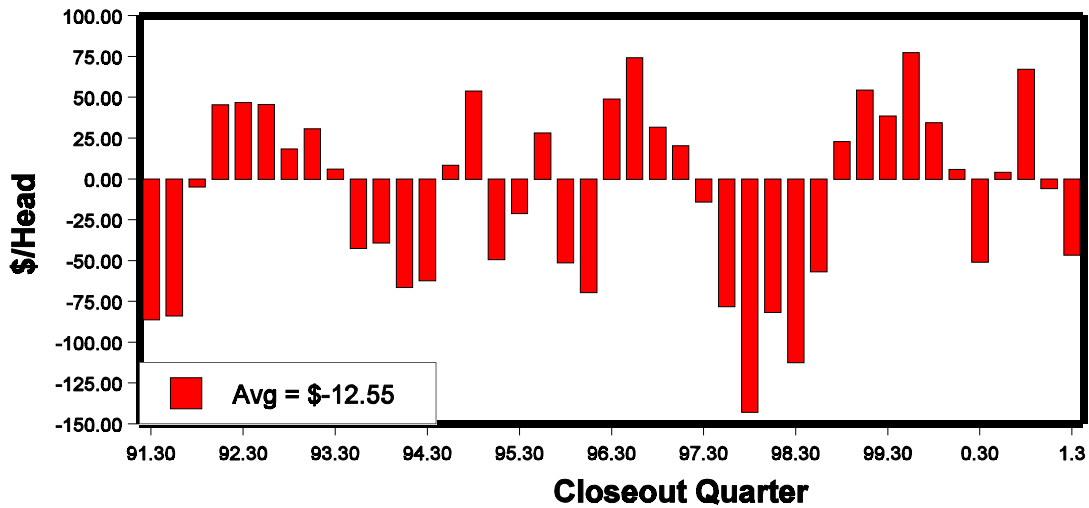
Source: KSU Cattle Return Series.

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



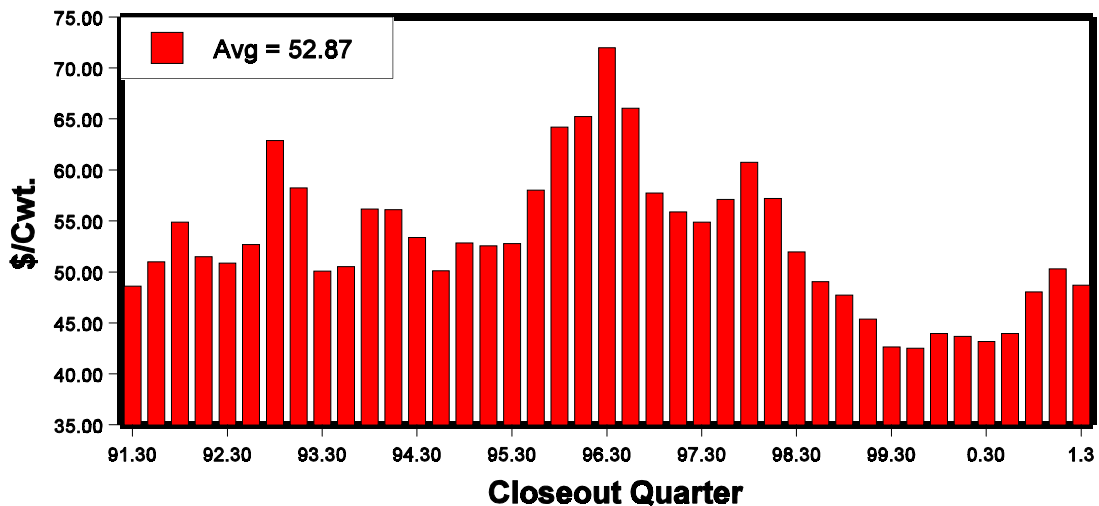
Source: KSU Cattle Return Series.

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
January 2002 Placements (750 lb steers, 650 lb hfrs)

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) ¹	\$83.59	\$83.25
Interest rate	8.5%	8.5%
Ration charge (\$/ton) ²	\$104.90	\$104.90
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	155 days	151 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.23 lbs.	2.82 lbs.
Feed conversion (as fed)	8.14 lbs.	8.44 lbs.
Death loss (in conversion)	0.50%	0.50%
Cost Budgets	Steers	Heifers
Feeder		
1. Cost of feeder:	\$626.93	\$541.13
2. Interest on feeder:	\$ 22.60	\$ 18.99
Feed		
3. Total feed cost:	\$213.47	\$188.14
4. Interest on feed:	\$ 3.85	\$ 3.30
Other Costs		
5. Yardage Charge:	\$ 7.74	\$ 7.54
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$.39	\$.38
Breakeven selling price:	\$ 71.12	\$ 71.95
Total cost of gain/cwt:	\$ 52.41	\$ 54.67
Feeding cost of gain/cwt: ³	\$ 47.89	\$ 50.20

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

²Ration charge of \$104.90 based on corn price of \$2.31/bu., milo price of \$3.43/cwt., alfalfa hay price of \$116.00/ton, supplement price of \$186.00/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				
	\$80.00	\$82.00	\$84.00	\$86.00	\$88.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$45.00	67.73	68.97	70.22	71.46	72.70
\$46.00	68.13	69.37	70.62	71.86	73.10
\$47.00	68.53	69.77	71.02	72.26	73.50
\$48.00	68.93	70.17	71.42	72.66	73.90
\$49.00	69.33	70.57	71.82	73.06	74.30
\$50.00	69.73	70.97	72.22	73.46	74.70
\$51.00	70.13	71.37	72.62	73.86	75.10

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$79.00	\$81.00	\$83.00	\$85.00	\$87.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$47.00	68.03	69.28	70.53	71.78	73.03
\$48.00	68.42	69.67	70.92	72.18	73.43
\$49.00	68.82	70.07	71.32	72.57	73.82
\$50.00	69.21	70.46	71.71	72.97	74.22
\$51.00	69.61	70.86	72.11	73.36	74.61
\$52.00	70.00	71.25	72.51	73.76	75.01
\$53.00	70.40	71.65	72.90	74.15	75.40

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

	% Change Previous Year	2002	2001	2000	1990-2000 Average
January		52.00 ^P	46.44	43.11	53.49
February		53.00 ^P	46.97	43.76	55.45
March		53.50 ^P	50.69	44.97	55.96
April		53.00 ^P	52.64	44.55	54.70
May			50.08	43.29	53.42
June	+11.6		48.20	43.20	51.56
July	+12.6		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			51.00 ^P	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		77.05 ^P	72.93	65.68
February		77.25 ^P	72.93	67.47
March		77.07 ^P	74.90	68.15
April		74.68 ^P	76.74	69.61
May			76.16	71.27
June	+ 4.4		74.85	71.72
July	+ 3.5		72.47	69.99
August	+ 5.4		73.48	69.69
September	+ 6.5		74.39	69.82
October	+ 6.1		74.20	69.92
November	+ 6.8		77.46	72.56
December			77.20 ^P	73.62

^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 January would be expected to finish in July. 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 January remained exactly the same as last month's calculation, at \$34.51 per pig. Iowa direct weaned pig transfer prices increased slightly over the past month, and remain 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 January is \$42.92 per cwt. on a live weight basis, the same as 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 (\$38.50) results in a projected break-even to cover all costs of \$44.70 per cwt. Our current estimations indicate that average weaned pig producers need nearly \$31.50 per 10 lb. pig to cover all costs, so both formula prices and average reported market transfer prices are still generating small profits for average weaned pig producers.

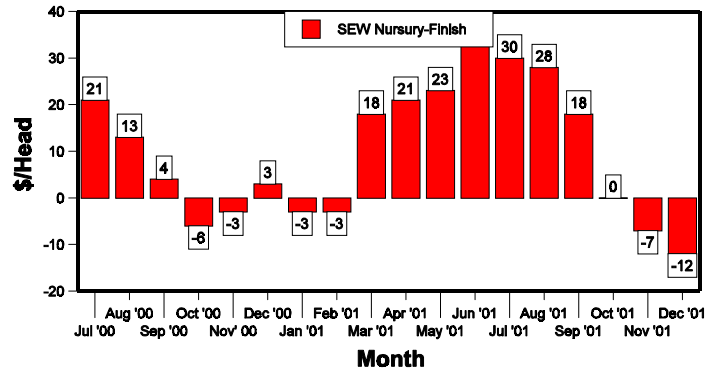
The example hog finishing budgets are calculated using a milo based feeding ration. Projected feed costs, based on current milo and supplement prices, are currently at

\$17.24 per cwt. of pork produced in the SEW nursery finish program. This is a very 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 increased slightly over the past month, resulting in the bumped up feed cost projections.

Calculated average returns to labor and management continued to decline for hogs exiting Kansas SEW nursery-finishing barns in November and December. Returns to labor and management averaged about \$-6.53 per pig for hogs finished in November, and averaged around \$-12.20 per pig for hogs finished in December. Current estimates suggest slightly negative returns to labor and management in January, with improving returns into the spring. Break-even prices to cover all costs for average producers are expected to be in the \$41.00 to \$41.50 per cwt. range on a live weight basis for the next few months.

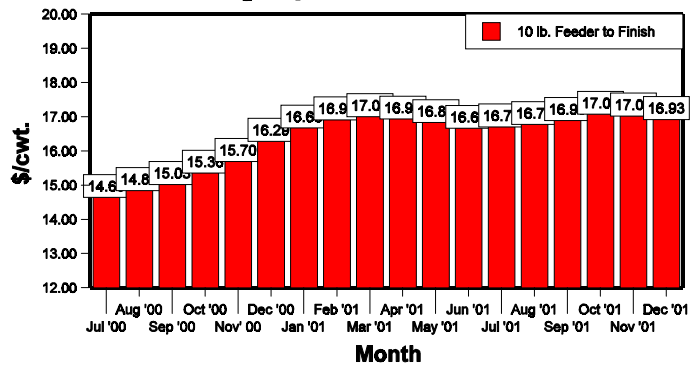
Fourth quarter production out of farrow-to-finish operations likely resulted in modest losses relative to total costs of production, as producers faced break-evens of around \$42.30 per cwt. on a live weight basis. Declining feed costs have reduced projected break-evens to under \$42.00 per cwt. on a live basis for early 2002. This improvement, coupled with modestly improving hog prices, should return farrow-to-finish producers to modest profitability early in 2002.

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

January, 2002

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig ¹	\$34.51
Interest rate	9.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$3.43 / cwt.
Soybean meal price	\$161.00 / ton.

¹ Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

FEEDER	
1. Cost of weaned pig	\$34.51
2. Interest on weaned pig	\$ 1.45
FEED	
3. Grain	\$17.17
4. Soybean meal	\$10.38
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.80
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	\$37.77
Sale Price Needed to Cover Total Costs	\$42.92
Feed Cost Per Cwt. of Pork Produced	\$17.24

SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$30.00	\$32.00	\$34.00	\$36.00	\$38.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$15.00	38.83	39.73	40.69	41.53	42.43
\$16.00	39.81	40.71	41.61	42.51	43.41
\$17.00	40.79	41.69	42.59	43.49	44.38
\$18.00	41.77	42.67	43.56	44.46	45.36
\$19.00	42.74	43.64	44.54	45.44	46.34
\$20.00	43.72	44.62	45.52	46.42	47.32
\$21.00	44.70	45.60	46.50	47.40	48.30

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$42.00	\$44.00	\$46.00	\$48.00	\$50.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$15.00	37.07	41.50	45.94	50.40	54.84
\$16.00	34.89	39.32	43.76	48.22	52.66
\$17.00	32.71	37.14	41.58	46.04	50.48
\$18.00	30.53	34.96	39.40	43.86	48.30
\$19.00	28.35	32.78	37.22	41.68	46.12
\$20.00	26.17	30.60	35.04	39.50	43.94
\$21.00	23.99	28.42	32.86	37.32	41.76