



## **Livestock Farm Management Update**

**May 29, 2002**

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,  
Kansas State University, May 29, 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 May placements are still well below the projections of a few months ago. The projected break-evens, for cattle expected to finish in about October, are in the \$64.50 to \$65.25 per cwt. range for steers and heifers. Average traditional weight feeder cattle prices remain in the mid \$70's, reflecting uncertainty in fed cattle markets and continued financial losses in the cattle feeding industry. Feed grain and protein prices remain at attractive levels, and hay prices have started to come down as some new crop hay becomes available. The overall ration charge projection is about the same as last month.

Combining the ration charge projection with late May placement performance expectations results in a feeding cost of gain projection of \$44.27 per cwt. for traditional weight May steer placements, and \$47.01 per cwt. for traditional weight May heifer placements. 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.

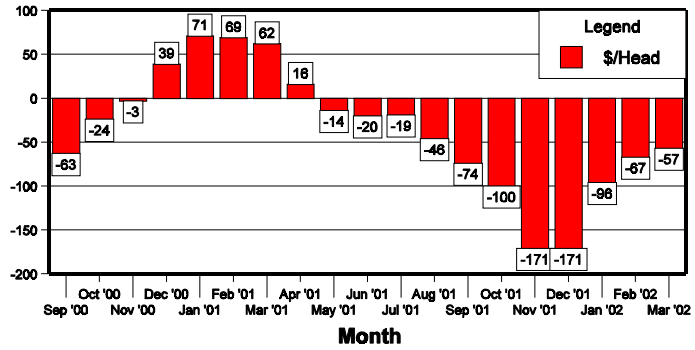
Calculated losses on March finished cattle came in somewhat more negative than earlier projected. The average March steer closeout returned about \$-56.75 per head, continuing the long time period of large

financial losses. Preliminary estimates suggest average returns of \$-105.00 per head on April closeouts, and early summer closeouts are currently projected to lose between \$85.00 and \$95.00 per head.

Continued drought conditions in the western U.S., including many parts of Kansas, have cow-calf producers facing difficult choices. Summer grazing resources are in very poor condition, suggesting other options are needed. For many producers these options are limited to 1) liquidating cows, 2) moving cows to locations further east where grazing resources are in better condition, or 3) exploring alternative feeding strategies. Rough estimates based on current feed prices suggest that pairs could be drylot summered on either a concentrate based diet, or a shipped in roughage based diet for around 20 to 30 % higher cost than recent average per cow summer pasture costs. Supplemental feeding to extend grazing resources may be an option for some producers. Shipping cows to a more favorable location is also a costly option, however, some producers may find it to be the best choice. Check out the Kansas Farm Bureau website ([www.kfb.org](http://www.kfb.org)) for a list of forage available, and producers seeking grass or hay.

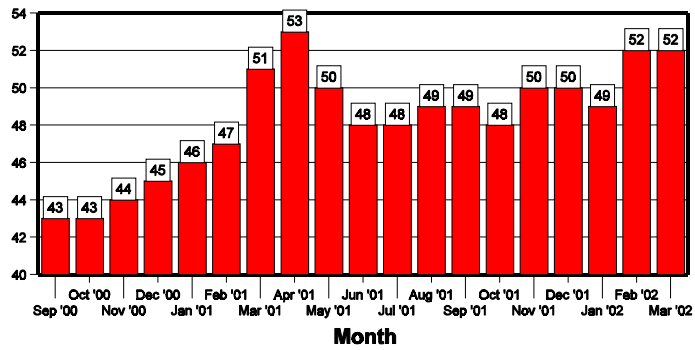
Which option is best depends on the individual situation. I have been a long time advocate of avoiding additional costs in the cow-calf enterprise, however, there are many individual producers who can justify a modest increase in summer feeding costs if fall calf prices return to recent levels. Other producers may find that their best alternative is to cull deeply, and plan to restock when conditions improve. Individual cost structure, facilities and resources available, age of the herd, and individual outlook regarding future calf prices are all factors that need to be considered in this difficult decision.

### 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.

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

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) <sup>1</sup>	\$75.50	\$74.50
Interest rate	8.5%	8.5%
Ration charge (\$/ton) <sup>2</sup>	\$98.39	\$98.39
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	150 days	148 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.33 lbs.	2.87 lbs.
Feed conversion (as fed)	7.97 lbs.	8.37 lbs.
Death loss (in conversion)	0.50%	0.50%
<b>Cost Budgets</b>	<b>Steers</b>	<b>Heifers</b>
<b>Feeder</b>		
1. Cost of feeder:	\$566.25	\$484.25
2. Interest on feeder:	\$ 19.80	\$ 16.70
<b>Feed</b>		
3. Total feed cost:	\$196.03	\$174.99
4. Interest on feed:	\$ 3.43	\$ 3.02
<b>Other Costs</b>		
5. Yardage Charge:	\$ 7.51	\$ 7.40
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$ .38	\$ .37
Breakeven selling price:	\$ 64.59	\$ 65.18
Total cost of gain/cwt:	\$ 48.23	\$ 50.94
Feeding cost of gain/cwt: <sup>3</sup>	\$ 44.27	\$ 47.01

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

<sup>2</sup>Ration charge of \$98.39 based on corn price of \$2.20/bu., milo price of \$3.23/cwt., alfalfa hay price of \$87.50/ton, supplement price of \$195.00/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.

<sup>3</sup>Excludes interest on feeder.

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 750 lb. Steers

	Feeder purchase price				
	\$71.00	\$73.00	\$75.00	\$77.00	\$79.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$42.00	60.89	62.13	63.37	64.62	65.86
\$43.00	61.29	62.53	63.77	65.02	66.26
\$44.00	61.69	62.93	64.17	65.42	66.66
\$45.00	62.09	63.33	64.57	65.82	67.06
\$46.00	62.49	63.73	64.97	66.22	67.46
\$47.00	62.89	64.13	65.37	66.62	67.86
\$48.00	63.29	64.53	65.77	67.02	68.26

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$70.00	\$72.00	\$74.00	\$76.00	\$78.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$44.00	61.18	62.43	63.68	64.93	66.18
\$45.00	61.58	62.83	64.08	65.33	66.58
\$46.00	61.97	63.22	64.47	65.72	66.98
\$47.00	62.37	63.62	64.87	66.12	67.37
\$48.00	62.76	64.01	65.26	66.51	67.77
\$49.00	63.16	64.41	65.66	66.91	68.16
\$50.00	63.55	64.80	66.05	67.31	68.56

**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	+11.0	52.12	46.97	43.76	55.45
March	+ 3.1	52.24	50.69	44.97	55.96
April		50.00 <sup>P</sup>	52.64	44.55	54.70
May		48.00 <sup>P</sup>	50.08	43.29	53.42
June		46.50 <sup>P</sup>	48.20	43.20	51.56
July		46.50 <sup>P</sup>	48.42	43.01	50.29
August		46.50 <sup>P</sup>	48.88	43.43	52.04
September			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	+ 5.3	76.77	72.93	67.47	71.84
March	+ 2.6	76.90	74.90	68.15	71.65
April		73.48 <sup>P</sup>	76.74	69.61	71.27
May		71.20 <sup>P</sup>	76.16	71.27	71.00
June		69.85 <sup>P</sup>	74.85	71.72	70.21
July		70.42 <sup>P</sup>	72.47	69.99	69.50
August		69.14 <sup>P</sup>	73.48	69.69	68.86
September			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

<sup>P</sup> 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 May would be expected to finish in November. 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 May decreased considerably from last month's calculation, to \$21.56 per pig. The continuing decline in the formula weaned pig price is due to continued weakness in the 6 month out hog futures price. Average Iowa direct weaned pig transfer prices also decreased significantly over the past month, and now average slightly below 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 May is \$36.94 per cwt. on a live weight basis. Pricing the weaned pig into the nursery-finish program at the mid-point of the recent Iowa reported cash transfer price (\$20.50) results in a projected break-even to cover all costs of \$36.46 per cwt. Finishing break-even projections are declining as weaned pig prices going into the programs are dropping. Weaned pig prices are now well below break-even levels for average farrowing operations.

The example hog finishing budgets are calculated using a milo based feeding ration. Continued low feed ingredient prices are helping to keep production costs low. Projected feed costs, based on current milo and supplement prices, are currently at \$17.05 per cwt. of live pork produced in the SEW nursery finish program. Projected feed

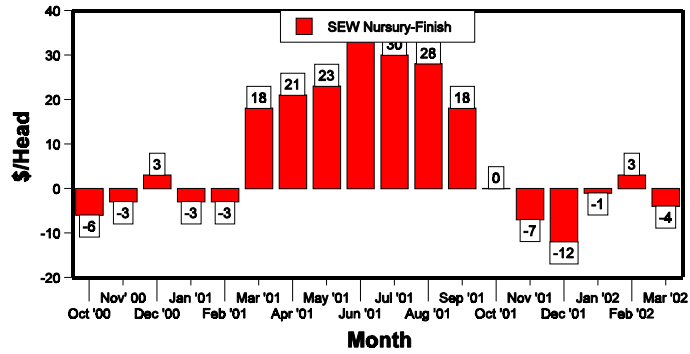
costs have remained fairly constant over the past few months. Feed costs are sensitive to changes in milo and soybean meal prices. For example, a milo price change of \$0.10 per cwt. changes feed costs per cwt. by \$0.22. A soybean meal price change of \$10 per ton changes feed costs by \$0.28 per cwt.

Returns to labor and management averaged about \$-3.63 per pig for hogs exiting Kansas SEW nursery-finishing barns in March. These returns were based on average finished hog prices of close to \$37.75 per cwt. on a live basis. Current calculations suggest that average returns declined in April and May as hog prices broke sharply. Returns to labor and management for the next several months will likely average in the \$-15.00 to \$-25.00 per head range. Break-even prices to cover all costs for average producers are currently in the low \$40's on a live weight basis. Break-evens will not decline significantly until fall, when lower valued pigs begin to finish.

Similarly, projected break-evens to cover all costs for average Kansas farrow-to-finish producers are currently around \$42.00 per cwt. on a live basis for pigs produced under current feed cost conditions.

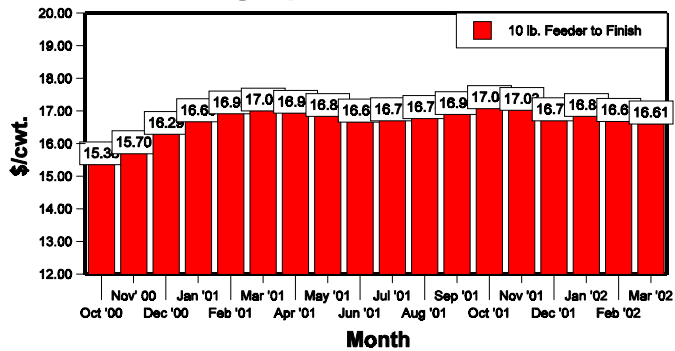
Futures based price projections suggest difficult financial times for hog producers over the next several months. Prices are projected to dip well below values needed to cover even cash variable costs (low to mid \$30's on a live basis for nursery-finish producers, low \$30's on a live basis for average farrow-to-finish producers) in the late summer and early fall. Not only will it be difficult to replace facilities and equipment, but operating funds will be squeezed as well.

### 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

May, 2002

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig <sup>1</sup>	\$21.56
Interest rate	9.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$3.23 / cwt.
Soybean meal price	\$170.00 / ton.

<sup>1</sup> Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

<b>FEEDER</b>	
1. Cost of weaned pig	\$21.56
2. Interest on weaned pig	\$ 0.90
<b>FEED</b>	
3. Grain	\$16.17
4. Soybean meal	\$10.97
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.80
<b>OTHER VARIABLE COSTS</b>	
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
<b>FIXED COSTS</b>	
15. Buildings and equipment	\$11.97
Sale Price Needed to Cover Variable Costs	\$31.79
Sale Price Needed to Cover Total Costs	\$36.94
Feed Cost Per Cwt. of Pork Produced	\$17.05

SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$18.00	\$20.00	\$22.00	\$24.00	\$26.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$14.00	32.38	33.27	34.17	35.06	35.96
\$15.00	33.35	34.25	35.14	36.04	36.93
\$16.00	34.33	35.22	36.12	37.02	37.91
\$17.00	35.31	36.20	37.10	37.99	38.89
\$18.00	36.28	37.18	38.07	38.97	39.86
\$19.00	37.26	38.15	39.05	39.94	40.84
\$20.00	38.23	39.13	40.02	40.92	41.81

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$26.00	\$28.00	\$30.00	\$32.00	\$34.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$14.00	3.75	8.22	12.86	17.16	21.62
\$15.00		6.04	10.50	14.98	19.44
\$16.00		3.86	8.32	12.80	17.26
\$17.00			6.14	10.62	15.08
\$18.00			3.96	8.44	12.90
\$19.00				6.26	10.72
\$20.00				4.08	8.54