



## **Livestock Farm Management Update**

**July 5, 2001**

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,  
Kansas State University, July 5, 2001.

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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 late June placements increased slightly from the projections of the previous month. The projected break-evens, for cattle expected to finish in about November, are in the \$75.00 to \$76.00 per cwt. range for heifers and steers. Both average feeder steer and average feeder heifer prices increased somewhat from the previous month, as feeder supplies remain tight. Performance expectations remain favorable for summer placements. Feed conversions and average daily gains of June placed cattle are expected to be 4 to 5% better than the annual average.

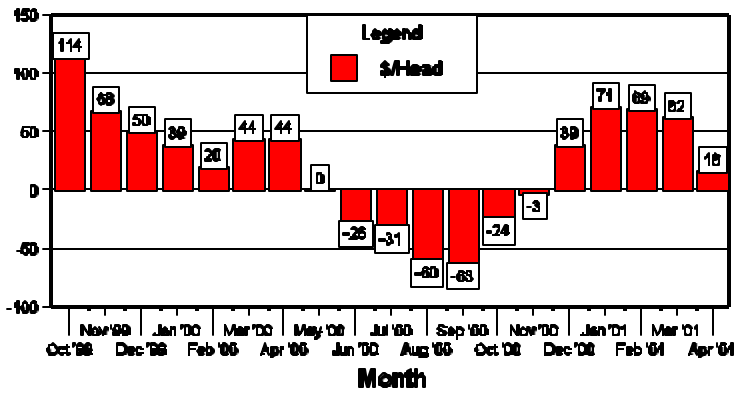
Due to a slight increase in supplement prices, the estimated ration charge increased slightly from last month. Combining the ration charge projection with June placement performance expectations results in a feeding cost of gain projection of \$43.88 per cwt. for June steer placements, and \$46.29 per cwt. for June heifer placements. The feeding cost of gain estimates depicted in the accompanying budgets are based on current feed prices and seasonal average performance, and are now slightly lower than "futures based" feeding cost of gain projections that assume feed is purchased as needed throughout the feeding period. 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 summer performance estimates, each \$0.10 per bushel change in corn price changes feeding cost of gain by \$1.24 per cwt. Each \$10.00 per ton change in hay prices changes feeding cost of gain by \$0.50

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.

The final survey information is in, and actual average returns to Kansas April steer closeouts were somewhat disappointing, at \$16.19 per head. Unfavorable winter weather reduced average daily gains and pushed the average feeding cost of gain up to higher than anticipated levels, resulting in a higher than anticipated average break-even for April steer closeouts of \$76.74 per cwt. During the same time period, cash fed cattle prices retreated from their March highs. Preliminary projections suggest that the average May steer closeout just about broke- even, however, if the adverse late winter weather impacted May closeouts as much as it impacted April closeouts actual average returns could have been well below zero. It is unlikely that the adverse performance will linger into the June and July closeouts, however, the recent declines in fed cattle prices suggest that it may be difficult to generate positive returns on early summer finished cattle.

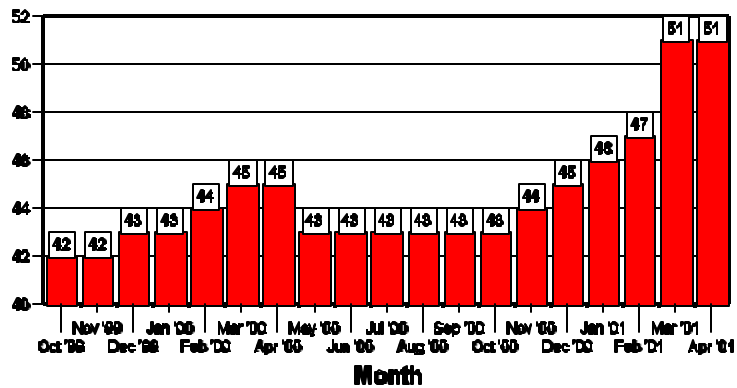
It is a little early to make final decisions regarding cattle exiting most summer grazing programs. Assuming average performance on grass, lighter weight steers coming off of short season grazing programs likely have break-evens in the very low \$90's. Current feeder cattle markets suggest that there is some profit to be realized to the grazing enterprise for these average producers. Furthermore, it appears difficult to project a profit in a retained ownership feeding phase. This scenario could reverse quickly, however, over the next month or so if feeder cattle prices decline in response to fed cattle price declines and negative cattle feeding margins.

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



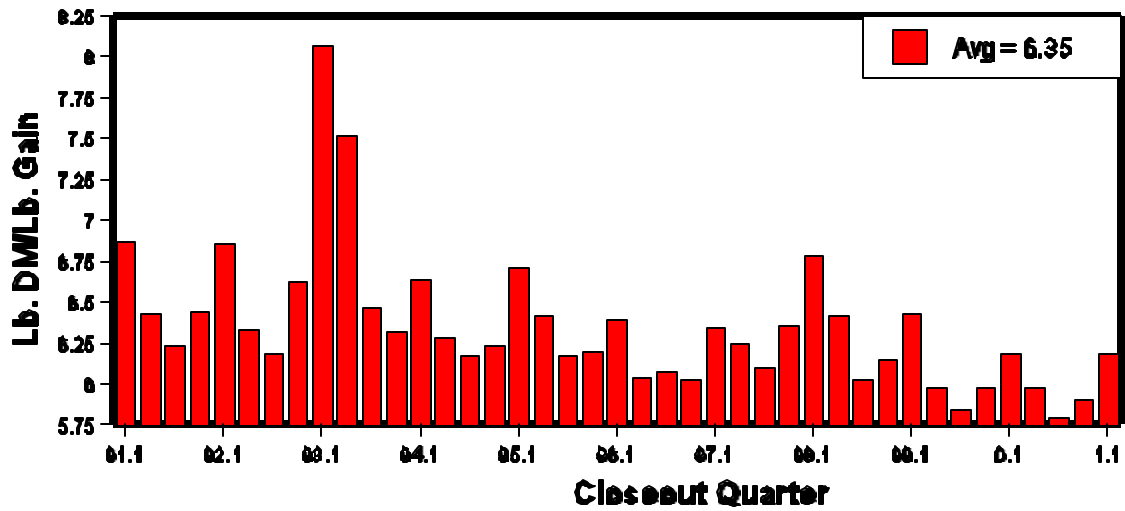
Source: KSU Cattle Return Series.

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



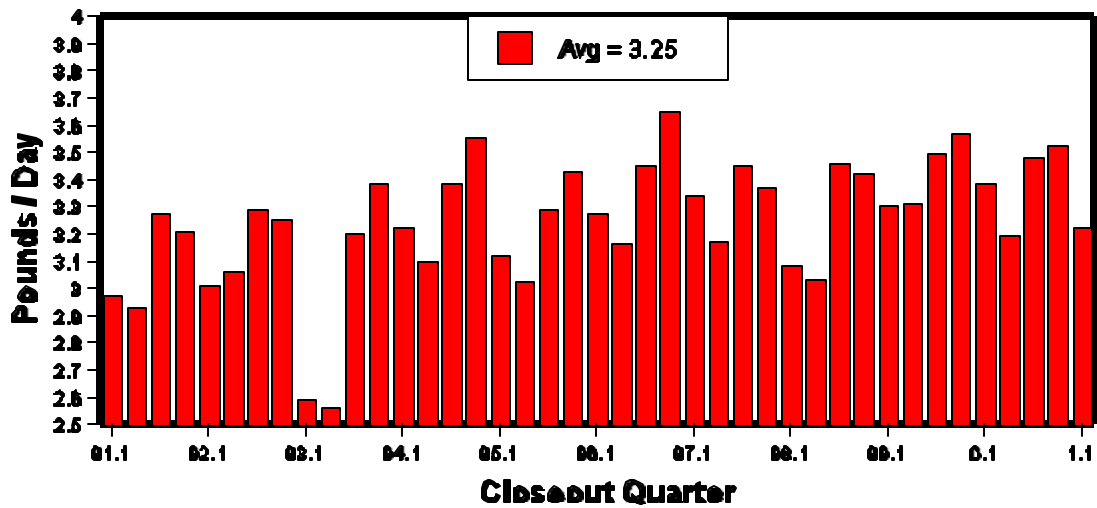
Source: KSU Cattle Return Series.

## Quarterly Feed Conversion Finishing 700-800 Lb. Steers in Kansas



Source: KSU Cattle Return Series.

## Quarterly Average Daily Gain Finishing 700-800 Lb. Steers in Kansas



Source: KSU Cattle Return Series.

**Commercial Feedlot Cattle Finishing Budget**  
**June 2001 Placements (750 lb steers, 650 lb hfrs)**

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) <sup>1</sup>	\$93.93	\$90.53
Interest rate	9.0%	9.0%
Ration charge (\$/ton) <sup>2</sup>	\$97.74	\$97.74
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	148 days	143 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.37 lbs.	2.97 lbs.
Feed conversion (as fed)	7.94 lbs.	8.29 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:	\$704.48	\$588.45
2. Interest on feeder:	\$ 25.77	\$ 20.76
<b>Feed</b>		
3. Total feed cost:	\$194.02	\$172.18
4. Interest on feed:	\$ 3.55	\$ 3.04
<b>Other Costs</b>		
5. Yardage Charge:	\$ 7.42	\$ 7.15
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$ .39	\$ .37
Breakeven selling price:	\$ 75.97	\$ 74.97
Total cost of gain/cwt:	\$ 49.03	\$ 51.18
Feeding cost of gain/cwt: <sup>3</sup>	\$ 43.88	\$ 46.29

<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 \$97.74 based on corn price of \$2.10/bu., milo price of \$3.21/cwt., alfalfa hay price of \$97.50/ton, supplement price of \$198.80/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				
	\$88.00	\$90.00	\$92.00	\$94.00	\$96.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$41.00	71.13	72.38	73.62	74.86	76.11
\$42.00	71.53	72.78	74.02	75.26	76.51
\$43.00	71.93	73.18	74.42	75.66	76.91
\$44.00	72.33	73.58	74.82	76.06	77.31
\$45.00	72.73	73.98	75.22	76.46	77.71
\$46.00	73.13	74.38	75.62	76.86	78.11
\$47.00	73.53	74.78	76.02	77.26	78.51

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$86.00	\$88.00	\$90.00	\$92.00	\$94.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$44.00	71.23	72.48	73.73	74.99	76.24
\$45.00	71.63	72.88	74.13	75.38	76.63
\$46.00	72.02	73.27	74.52	75.78	77.03
\$47.00	72.42	73.67	74.92	76.17	77.42
\$48.00	72.81	74.06	75.32	76.57	77.82
\$49.00	73.21	74.46	75.71	76.96	78.21
\$50.00	73.60	74.85	76.11	77.36	78.61

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

	% Change Previous Year	2001	2000	1999	1990-1999 Average
January	+ 7.7	46.44	43.11	47.65	53.10
February	+ 7.3	46.97	43.76	47.94	55.35
March	+12.7	50.69	44.97	47.66	55.99
April	+18.2	52.64	44.55	47.94	53.86
May		47.50 <sup>P</sup>	43.29	45.56	53.26
June		46.00 <sup>P</sup>	43.20	42.62	51.19
July		45.50 <sup>P</sup>	43.01	42.30	50.24
August		45.00 <sup>P</sup>	43.43	43.15	50.82
September		45.00 <sup>P</sup>	43.10	42.41	51.09
October		45.00 <sup>P</sup>	43.24	42.19	51.15
November		45.50 <sup>P</sup>	44.05	42.04	51.69
December			44.65	43.37	52.48

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	1999	1990-1999 Average
January	+11.0	72.93	65.68	61.92	72.34
February	+ 8.1	72.93	67.47	60.39	72.48
March	+ 9.9	74.90	68.15	61.51	72.03
April	+10.2	76.74	69.61	61.63	71.63
May		75.14 <sup>P</sup>	71.27	59.71	71.28
June		73.93 <sup>P</sup>	71.72	62.21	69.67
July		71.81 <sup>P</sup>	69.99	63.05	69.67
August		72.69 <sup>P</sup>	69.69	61.90	68.61
September		74.01 <sup>P</sup>	69.82	61.29	68.48
October		74.20 <sup>P</sup>	69.92	60.70	68.68
November		74.94 <sup>P</sup>	72.56	64.73	70.52
December			73.62	65.02	71.26

<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 June would be expected to finish in December. 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 late June increased considerably from last month, to \$31.74 per pig. Iowa direct weaned pig transfer prices increased somewhat over the past month as well, and are averaging only slightly 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 June is \$41.67 per cwt. on a live weight basis, up somewhat from 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 (\$32.00) results in a projected break-even to cover all costs of \$41.79 per cwt. Early weaned pig producers currently need about \$30.00 per pig to cover all costs, so current formula and spot market prices are covering break-evens.

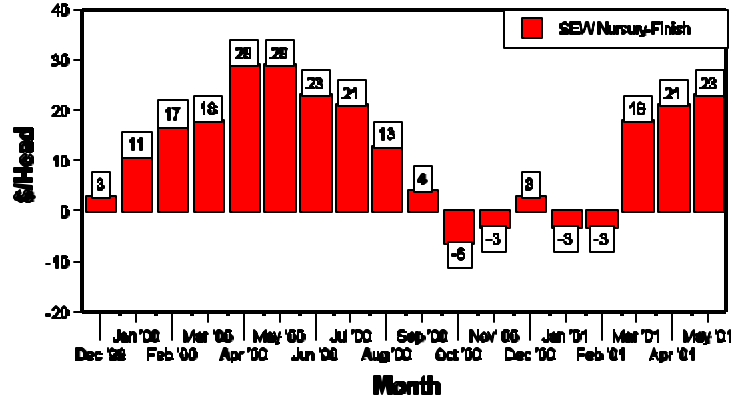
The example hog finishing budgets are calculated using a milo based feeding ration. Projected feed costs, based on current milo and supplement prices, are currently at \$17.12 per cwt. of pork produced in the SEW nursery finish program. This represents another very slight increase from the feed

cost projection of last month. 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. Meal prices have continued to increase over the past month, resulting in the slightly higher feed cost projection.

Calculated average returns to labor and management remained positive for hogs exiting Kansas SEW nursery-finishing barns in May, averaging about \$23.24 per head. All indications suggest a continuation of these strong positive returns for the next several months. Break-even prices to cover all costs for average producers remain around \$42.00 per cwt. on a live weight basis. Given these break-even levels, recent cash sale prices should be resulting in returns to labor and management of \$20 to \$30 per pig sold for average nursery finish producers over the next few months. Returns are still expected to decline later in the year, however, recent strength in lean hog futures prices suggests that returns in the fall and early winter may be better than earlier projected.

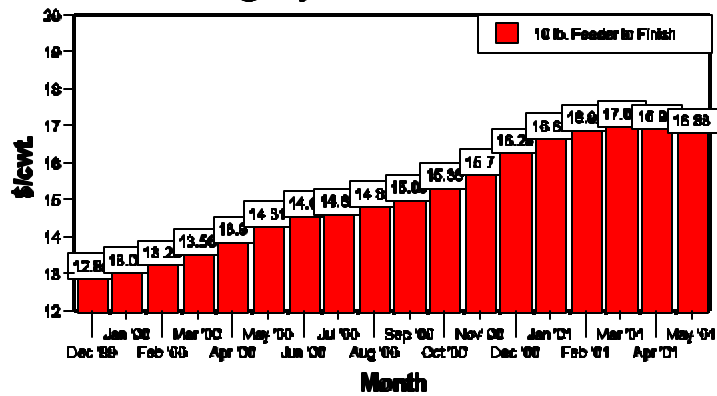
Break-evens to cover all costs for average farrow-to-finish producers remain around \$41.75 per cwt. on a live weight basis. Given recent cash hog prices, significant positive returns are accruing to average farrow-to-finish producers as well.

## 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

June, 2001

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig <sup>1</sup>	\$31.74
Interest rate	10.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$3.21 / cwt.
Soybean meal price	\$173.80 / ton.

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

### COST BUDGET FOR FINISHING PIGS

#### FEEDER

1. Cost of weaned pig	\$31.74
2. Interest on weaned pig	\$ 1.48

#### FEED

3. Grain	\$16.07
4. Soybean meal	\$ 11.21
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.89

#### 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	\$ 0.29

#### FIXED COSTS

15. Buildings and equipment	\$11.97
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Sale Price Needed to Cover Variable Costs	\$36.53
Sale Price Needed to Cover Total Costs	\$41.67

Feed Cost Per Cwt. of Pork Produced	\$17.12
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SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$28.00	\$30.00	\$32.00	\$34.00	\$36.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$14.00	36.95	37.85	38.75	39.65	40.55
\$15.00	37.93	38.83	39.73	40.63	41.52
\$16.00	38.91	39.81	40.70	41.60	42.50
\$17.00	39.88	40.78	41.68	42.58	43.48
\$18.00	40.86	41.76	42.66	43.56	44.46
\$19.00	41.84	42.74	43.64	44.54	45.44
\$20.00	42.82	43.72	44.62	45.52	46.42

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$38.00	\$40.00	\$42.00	\$44.00	\$44.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$14.00	30.35	34.80	39.25	43.70	48.14
\$15.00	28.17	32.62	37.07	41.52	45.96
\$16.00	25.99	30.44	34.89	39.34	43.78
\$17.00	23.81	28.26	32.71	37.16	41.60
\$18.00	21.63	26.08	30.53	34.98	39.42
\$19.00	19.45	23.90	28.35	32.80	37.24
\$20.00	17.27	21.72	26.17	30.62	35.06