



## **Livestock Farm Management Update**

**October 3 2002**

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,  
Kansas State University, October 3, 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 late September placements are consistent with the projections of last month. The projected break-evens, for cattle expected to finish in about February, are in the \$72.50 to \$73.50 per cwt. range for heifers and steers. Average traditional weight feeder cattle prices have backed off slightly in recent weeks, but still remain surprisingly strong, with recent price quotes often near \$80.00 per cwt. for steers. Performance expectations decline dramatically for September and October placements. For example, both feed conversions and average daily gains for October placements are expected to be 8% to 9% worse than annual averages.

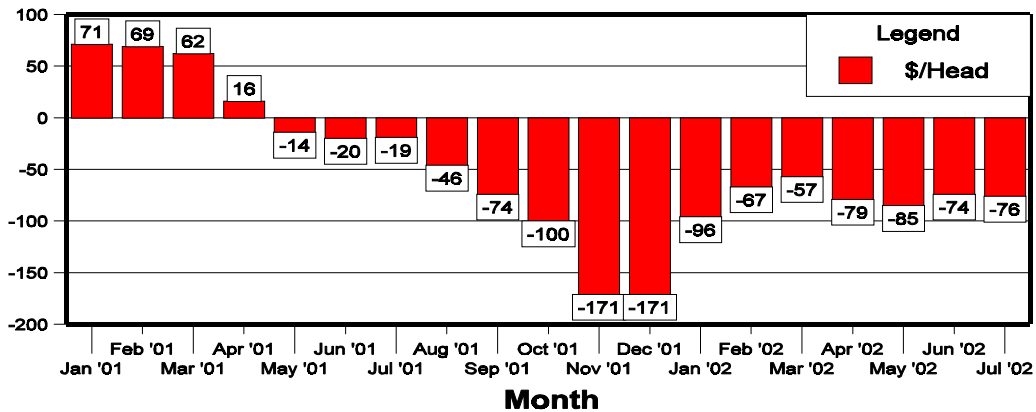
Combining the ration charge projection with late September placement performance expectations results in a feeding cost of gain projection of \$60.07 per cwt. for traditional weight September steer placements, and \$62.85 per cwt. for traditional weight September heifer placements. These are dramatic increases from recent projections, and are driven by current feed prices and seasonal performance expectations. Alternative projections based on use-weighted futures based price projections for feed ingredients yield slightly lower feeding cost of gain estimates. Risk averse producers may want to take advantage of harvest dips to "lock in" feed ingredient prices, reducing the risk of higher than anticipated feeding costs. In addition to feed ingredients, yardage, processing, medication, and death loss are accounted for in feeding cost projections. Estimates are most sensitive to changes in feed conversions, daily gains, grain prices, and hay prices. To illustrate the risk associated with feed price

uncertainty, each \$0.10 per bushel change in corn price changes feeding cost of gain by \$1.24 per cwt. In addition, each \$10.00 per ton change in hay price changes feeding cost of gain by \$0.49 per cwt.

The average July steer closeout returned about \$-76.00 per head, consistent with expectations. August closeouts likely yielded similar economic results. Average losses are expected to continue through the fall, though equity losses will not be as severe. Current projections suggest break-evens will remain in the very high \$60's to low \$70's through the end of the year. Futures based price expectations range from the mid \$60's early in the fall, to the higher \$60's around the end of the year. Additional feed ingredient price increases or weather related performance setbacks in the fall of 2002 could drive feeding costs even higher and widen expected negative margins. Feeder cattle prices have weakened slightly, but will need to decline even further before positive returns can be projected.

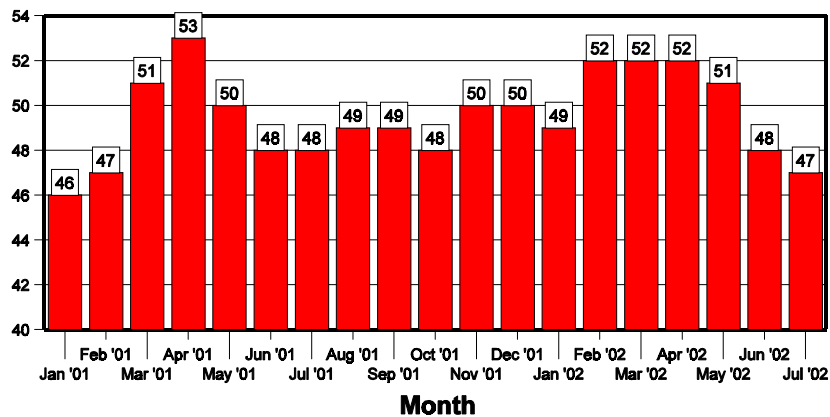
There is little evidence that lighter calf prices have declined much yet this fall in the face of rising feed prices, and uncertain feeder cattle and fed cattle price forecasts. Based on recent prices it is very difficult to project positive returns to confined feeding programs. Producers who do not have the competitive advantage of either fall / winter grazing resources, or lower valued feed ingredients may find it difficult to reap a positive return to calf ownership programs. Typically, calf prices decline going into October and November. A price decline could make a longer term ownership strategy more attractive. Watch local markets carefully for buying opportunities, and carefully evaluate the calf ownership decision this fall.

## 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**  
**September 2002 Placements (750 lb steers, 650 lb hfrs)**

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) <sup>1</sup>	\$79.30	\$76.00
Interest rate	8.5%	8.5%
Ration charge (\$/ton) <sup>2</sup>	\$120.84	\$120.84
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	168 days	162 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.98 lbs.	2.63 lbs.
Feed conversion (as fed)	9.01 lbs.	9.35 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:	\$594.75	\$494.00
2. Interest on feeder:	\$ 23.24	\$ 18.59
<b>Feed</b>		
3. Total feed cost:	\$272.20	\$240.10
4. Interest on feed:	\$ 5.32	\$ 4.52
<b>Other Costs</b>		
5. Yardage Charge:	\$ 8.39	\$ 8.08
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$ .44	\$ .42
Breakeven selling price:	\$ 73.47	\$ 72.53
Total cost of gain/cwt:	\$ 64.72	\$ 67.22
Feeding cost of gain/cwt: <sup>3</sup>	\$ 60.07	\$ 62.85

<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 \$120.84 based on corn price of \$2.80/bu., milo price of \$4.48/cwt., alfalfa hay price of \$112.00/ton, supplement price of \$198.00/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				
	\$75.00	\$77.00	\$79.00	\$81.00	\$83.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$56.00	69.16	70.41	71.65	72.90	74.15
\$57.00	69.56	70.81	72.05	73.30	74.55
\$58.00	69.96	71.21	72.45	73.70	74.95
\$59.00	70.36	71.61	72.85	74.10	75.35
\$60.00	70.76	72.01	73.25	74.50	75.75
\$61.00	71.16	72.41	73.65	74.90	76.15
\$62.00	71.56	72.81	74.05	75.30	76.55

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$72.00	\$74.00	\$76.00	\$78.00	\$80.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$58.00	68.10	69.36	70.61	71.87	73.12
\$59.00	68.50	69.75	71.01	72.26	73.52
\$60.00	68.89	70.15	71.40	72.66	73.91
\$61.00	69.29	70.54	71.80	73.05	74.31
\$62.00	69.68	70.94	72.19	73.45	74.70
\$63.00	70.08	71.33	72.59	73.84	75.10
\$64.00	70.48	71.73	72.99	74.24	75.49

**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	- 1.4	51.99	52.64	44.55	54.70
May	+ 1.0	50.58	50.08	43.29	53.42
June	- 1.3	47.56	48.20	43.20	51.56
July	- 3.6	46.66	48.42	43.01	50.29
August		48.50 <sup>P</sup>	48.88	43.43	52.04
September		50.50 <sup>P</sup>	48.77	43.10	51.07
October		52.00 <sup>P</sup>	47.78	43.24	51.68
November		53.50 <sup>P</sup>	49.98	44.05	51.84
December		54.50 <sup>P</sup>	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	- 3.4	74.15	76.74	69.61	71.27
May	- 5.2	72.22	76.16	71.27	71.00
June	- 7.1	69.56	74.85	71.72	70.21
July	- 4.8	69.02	72.47	69.99	69.50
August		69.94 <sup>P</sup>	73.48	69.69	68.86
September		68.70 <sup>P</sup>	74.39	69.82	68.54
October		68.84 <sup>P</sup>	74.20	69.92	68.74
November		69.39 <sup>P</sup>	77.46	72.56	70.60
December		70.41 <sup>P</sup>	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 September would be expected to finish in March of 2003. 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 September is \$27.37 per pig, up somewhat from last month. Average Iowa direct weaned pig transfer prices remain somewhat 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 September is \$42.26 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 (\$23.00) results in a projected break-even to cover all costs of \$40.31 per cwt. Increasing weaned pig prices resulting from increasing futures based price forecasts for hogs in early 2003 are driving projected break-evens higher.

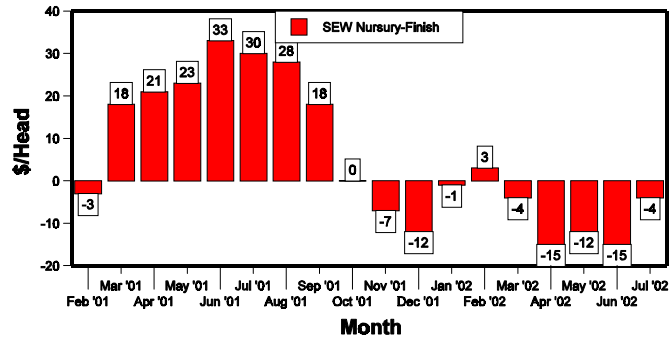
The example hog finishing budgets are calculated using a milo based feeding ration. Increasing feed ingredient prices are impacting break-even projections. Projected feed costs, based on current milo and supplement prices, are currently at \$19.95 per cwt. of live pork produced in the SEW nursery finish program. This projection represents a slight decrease from the estimate of last month due to somewhat lower soybean meal price projections.

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 \$-4.00 per pig for hogs exiting Kansas SEW nursery-finishing barns in July. Rising feed prices, and rapidly declining hog prices, have driven late summer profitability measures downward. The final numbers are not yet available, however, average nursery-finish producers likely fell \$25.00 to \$30.00 per head short of covering all costs in August and September. Though losses are expected to continue through the fall, losses may not be as severe as earlier projected. Increasing futures based price forecasts now suggest losses in the \$20.00 per head area for late fall production, as opposed to the \$40.00 per head loss projections of last month. In addition, it now appears likely that positive margins may return in early 2003.

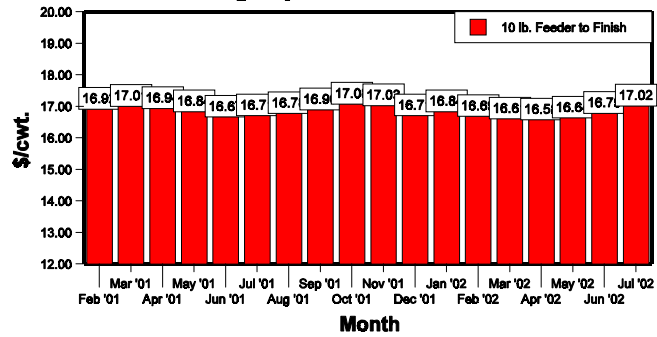
Projected break-evens to cover all costs for average Kansas farrow-to-finish producers are around \$45.00 per cwt. on a live basis. Variable costs of production for average producers can be covered at around \$36.00 per cwt. live basis. Both current hog prices, and futures based price forecasts for the fall, suggest that economic losses will continue for producers at all levels of the pork production chain. Recent price movements do, however, suggest the possibility that losses may not be as severe as predicted last month, and producers may be back in a position of at least covering variable costs by early spring of 2003.

### 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  
, 2002

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig <sup>1</sup>	\$27.37
Interest rate	8.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$4.48 / cwt.
Soybean meal price	\$173.00 / ton.

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

COST BUDGET FOR FINISHING PIGS

<b>FEEDER</b>	
1. Cost of weaned pig	\$27.37
2. Interest on weaned pig	\$ 1.02
<b>FEED</b>	
3. Grain	\$22.42
4. Soybean meal	\$11.16
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.83
<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	\$ 0.23
<b>FIXED COSTS</b>	
15. Buildings and equipment	\$11.97
Sale Price Needed to Cover Variable Costs	\$37.11
Sale Price Needed to Cover Total Costs	\$42.26
Feed Cost Per Cwt. of Pork Produced	\$19.95

SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$23.00	\$25.00	\$27.00	\$29.00	\$31.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$18.00	38.43	39.22	40.21	41.10	41.99
\$19.00	39.40	40.29	41.18	42.07	42.96
\$20.00	40.37	41.26	42.16	43.05	43.94
\$21.00	41.35	42.24	43.13	44.02	44.91
\$22.00	42.32	43.21	44.10	44.99	45.89
\$23.00	43.29	44.19	45.08	45.97	46.86
\$24.00	44.27	45.16	46.05	46.94	47.83

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$33.00	\$35.00	\$37.00	\$39.00	\$41.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$18.00	10.80	15.30	19.79	24.28	28.76
\$19.00	8.62	13.12	17.61	22.10	26.58
\$20.00	6.44	10.94	15.43	19.92	24.40
\$21.00	4.26	8.76	13.25	17.74	22.22
\$22.00	2.08	6.58	11.07	15.56	20.04
\$23.00		4.40	8.89	13.38	17.86
\$24.00		2.22	6.71	11.20	15.68