



Livestock Farm Management Update

April 1, 2003

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,
Kansas State University, April 1, 2003.

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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 March placements remained consistent with last month's projections. The projected break-evens, for cattle expected to finish in about August, are in the \$69.50 to \$70.00 per cwt. range for steers and heifers. Performance expectations for spring placements are considerably better than for fall placements. For example, feed conversions and average daily gains for March placements are expected to be 3% to 4% better than annual averages.

The ration charge projection continues to decline relative to earlier projections. Feedgrain and hay markets have been surprisingly weak, given the weather and production uncertainty. Combining the ration charge projection with March placement performance expectations results in a feeding cost of gain projection of \$49.16 per cwt. for traditional weight March steer placements, and \$52.28 per cwt. for traditional weight March heifer placements. 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, based on performance expectations for steers each \$0.10 per bushel change in corn price changes feeding cost of gain by \$1.25 per cwt. In addition, each \$10.00 per ton change in hay price changes feeding cost of gain by \$0.49 per cwt. Risk averse feeders who are concerned about the possibility of higher feed prices as the summer unfolds may want to consider forward pricing a portion of feed needs for later in the year.

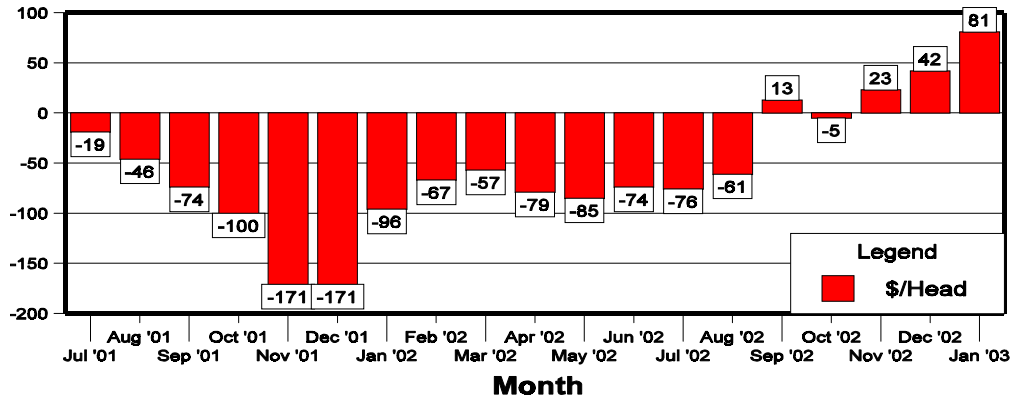
Call options appear to be a reasonably priced alternative for insuring against feed price rallies.

The average January steer closeout returned an average of about \$81.50 per head. February finished cattle likely returned close to \$100 per head on average. Cattle feeders are positioned to realize profits of \$30 to \$40 per head on April closeouts as well, however, returns are likely to decline as fed cattle prices dip going into early summer.

Lighter calf prices have rebounded somewhat in recent weeks, presumably in part due to demand for cattle to place in summer grazing programs. The accompanying budget projections suggest that 550 lb. steers purchased at recent prices (mid \$90's) will have break-evens relative to all costs in the mid \$80's. Lighter cattle exiting early intensive stocking programs will naturally have higher expected break-evens than cattle remaining on pastures for the full season that reach heavier weights. Performance during the grazing season is a primary determinant of the ultimate break-even.

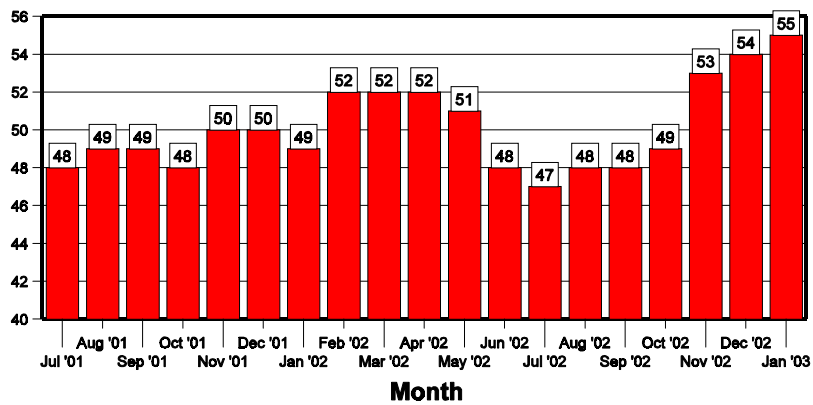
The ongoing war, threats of terrorist activity, and continued sluggishness in the economy are weighing on futures based cattle price projections. The unfolding of these factors over the next several months, in addition to weather through the spring and summer, will impact the ultimate profitability of cattle ownership programs. Producers who are concerned about the negative impact that uncontrollable factors could have on the economic outcome of cattle ownership programs might want to consider establishing some price protection in the form of "put options", while leaving the potential for price improvement open if events unfold in a way that is positive for the cattle industry.

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



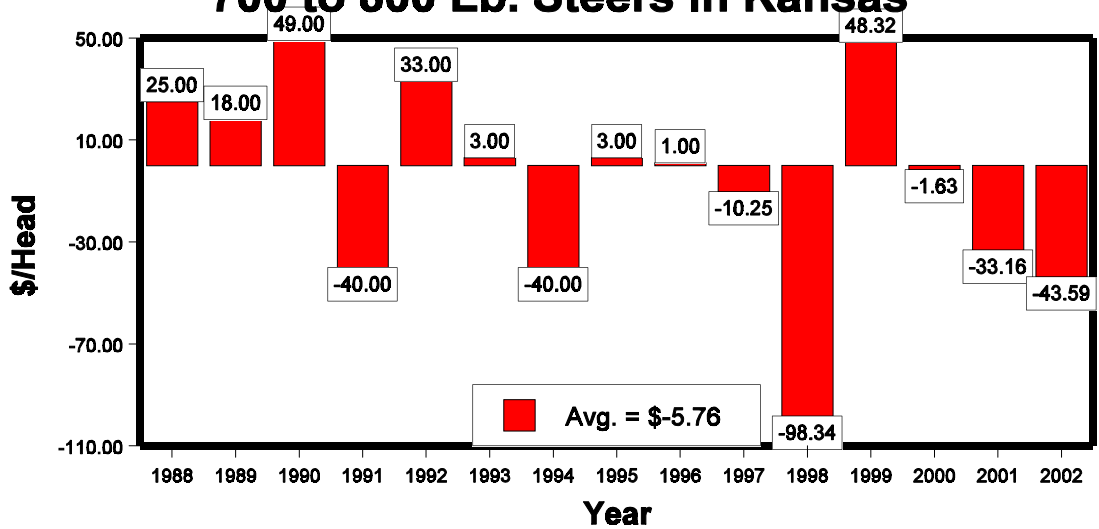
Source: KSU Cattle Return Series.

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



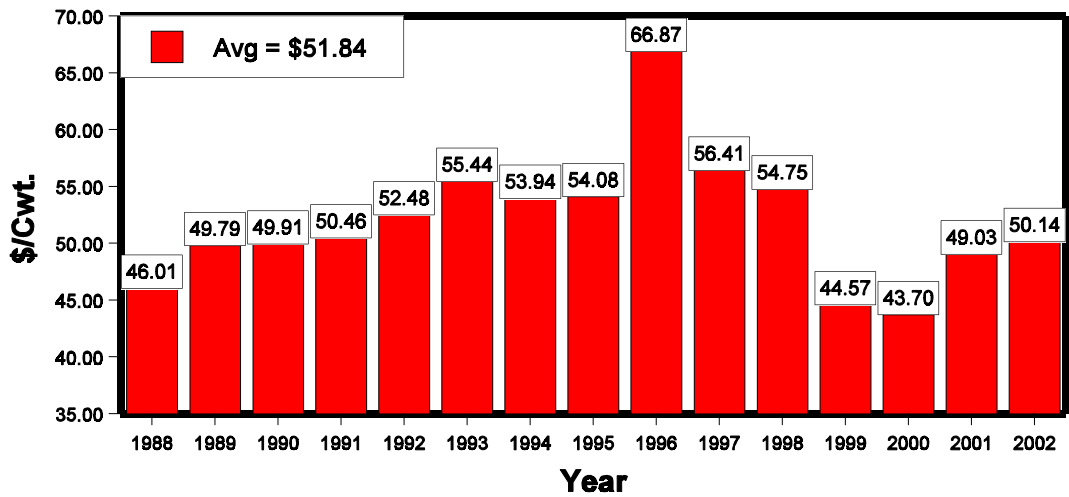
Source: KSU Cattle Return Series.

Annual Net Return for Finishing 700 to 800 Lb. Steers in Kansas



Source: KSU Cattle Return Series.

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



Source: KSU Cattle Return Series.

Commercial Feedlot Cattle Finishing Budget
March 2003 Placements (750 lb steers, 650 lb hfrs)

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) ¹	\$80.56	\$78.65
Interest rate	8.0%	8.0%
Ration charge (\$/ton) ²	\$111.38	\$111.38
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:	\$604.20	\$511.23
2. Interest on feeder:	\$ 19.53	\$ 16.36
Feed		
3. Total feed cost:	\$220.52	\$197.39
4. Interest on feed:	\$ 3.56	\$ 3.16
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.:	\$.35	\$.34
Breakeven selling price:	\$ 69.56	\$ 69.75
Total cost of gain/cwt:	\$ 53.07	\$ 56.13
Feeding cost of gain/cwt: ³	\$ 49.17	\$ 52.28

¹Feeder steer and heifer prices based on recent auction results at major Kansas sale barns.

²Ration charge of \$111.38 based on corn price of \$2.56/bu., milo price of \$4.09/cwt., alfalfa hay price of \$90.00/ton, supplement price of \$204.50/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.)				
\$47.00	66.49	67.73	68.97	70.21	71.45
\$48.00	66.89	68.13	69.37	70.61	71.85
\$49.00	67.29	68.53	69.57	71.01	72.25
\$50.00	67.69	68.93	70.17	71.41	72.65
\$51.00	68.09	69.33	70.57	71.81	73.05
\$52.00	68.49	69.73	70.97	72.21	73.45
\$53.00	68.89	70.13	71.37	72.61	73.85

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$75.00	\$77.00	\$79.00	\$81.00	\$83.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$50.00	66.57	67.82	69.06	70.31	71.56
\$51.00	66.96	68.21	69.46	70.71	71.96
\$52.00	67.36	68.61	69.85	71.10	72.35
\$53.00	67.75	69.00	70.25	71.50	72.75
\$54.00	68.15	69.40	70.65	71.89	73.14
\$55.00	68.54	69.79	71.04	72.29	73.54
\$56.00	68.94	70.19	71.44	72.68	73.93

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

	% Change Previous Year	2003	2002	2001	1990-2001 Average
January	+12.0	54.99	49.08	46.44	52.63
February		55.50 ^P	52.12	46.97	54.48
March		55.00 ^P	52.24	50.69	55.04
April		53.00 ^P	51.99	52.64	53.85
May		52.00 ^P	50.58	50.08	52.57
June		51.00 ^P	47.56	48.20	50.86
July			46.66	48.42	49.68
August	- 1.6		48.05	48.88	51.32
September	- 1.7		47.96	48.77	50.41
October	+ 2.9		49.16	47.78	50.98
November	+ 5.3		52.64	49.98	51.19
December	+ 8.4		53.69	49.52	51.43

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	2003	2002	2001	1990-2001 Average
January	- 5.0	71.69	75.49	72.93	70.94
February		72.50 ^P	76.77	72.93	71.48
March		72.63 ^P	76.90	74.90	71.36
April		72.95 ^P	74.15	76.74	71.13
May		73.59 ^P	72.22	76.16	71.02
June		71.10 ^P	69.56	74.85	70.34
July			69.02	72.47	69.54
August	- 7.7		67.80	73.48	68.93
September	-13.2		64.55	74.39	68.65
October	-11.3		65.83	74.20	68.84
November	-11.8		68.35	77.46	70.76
December	- 9.2		69.42	76.46	71.54

^P Values for this month are projected

2003 Flint Hills Grazing Budgets

Assumptions	Season-Long	Early Intensive
In Date	May 1	May 1
In Weight	550 lbs.	550 lbs.
Purchase Price	\$95.00	\$95.00
Interest Rate	8.0 %	8.0 %
Grazing Charge Per Head	\$58.80	\$47.80
Daily Gain ¹	1.60 lbs.	2.0 lbs.
Total Gain Per Head ¹	240 lbs.	180 lbs.
Acres Per Head	4.0	2.5
Total Gain Per Acre ¹	57.0 lbs.	67.6 lbs.
Death Loss	1.5 %	1.5 %
Shrink	3.0 %	3.0 %
Out Weight	790 lbs.	730 lbs.
Out Date	Oct 1	Aug 1
Cost Budgets		
FEEDER AND GRASS		
1. Cost of Feeder	\$522.50	\$522.50
2. Grazing Charge	\$ 58.80	\$ 47.80
OTHER COSTS		
3. Vitamins and Minerals	\$ 4.50	\$ 2.25
4. Vet., Drugs, Supplies	\$ 12.00	\$ 9.00
5. Labor	\$ 6.00	\$ 4.00
6. Miscellaneous	\$ 24.45	\$ 19.22
7. Int. on Feeder and Other Costs	\$ 19.12	\$ 9.38
Breakeven Selling Price	\$ 83.19	\$ 85.41

¹ Total gain per head, and total gain per acre have been adjusted for shrink and death loss.

Full Season Grazing
Sensitivity Analysis of Breakeven Prices

Daily Gain	Sale Weight	Purchase Price for 550 lb. Steer			
		\$93.00	\$95.00	\$97.00	\$99.00
-----Breakeven Prices ¹ -----					
1.40	760	84.96	86.48	88.00	89.51
1.50	775	83.31	84.80	86.29	87.78
1.60	790	81.73	83.19	84.65	86.11
1.70	805	80.21	81.64	83.08	84.51
1.80	820	78.74	80.15	81.56	82.96
1.90	835	77.33	78.71	80.09	81.47
2.00	850	75.96	77.32	78.68	80.04

¹ Break-even projections are adjusted for shrink and death loss.

Early Intensive Grazing
Sensitivity Analysis of Breakeven Prices

Grazing Charge per head	Purchase Price for 550 lb. Steer			
	\$93.00	\$95.00	\$97.00	\$99.00
-----Breakeven Prices ¹ -----				
\$42.00	83.04	84.60	86.15	87.71
\$44.00	83.32	84.88	86.43	87.99
\$46.00	83.60	85.16	86.71	88.27
\$48.00	83.88	85.44	86.99	88.55
\$50.00	84.16	85.72	87.28	88.83
\$52.00	84.45	86.00	87.56	89.11
\$54.00	84.73	86.28	87.84	89.39

¹ Break-even projections are adjusted for shrink and death loss.

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 is \$30.38 per pig, a reduction from the calculation of last month. Average Iowa direct weaned pig transfer prices have declined as well over the past month and remain well below the calculated 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 \$42.84 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 (\$23.25) results in a projected break-even to cover all costs of \$39.66 per cwt. Pigs placed in a nursery-finish program now are being placed against a futures based price forecast in the low \$40's on a live weight basis.

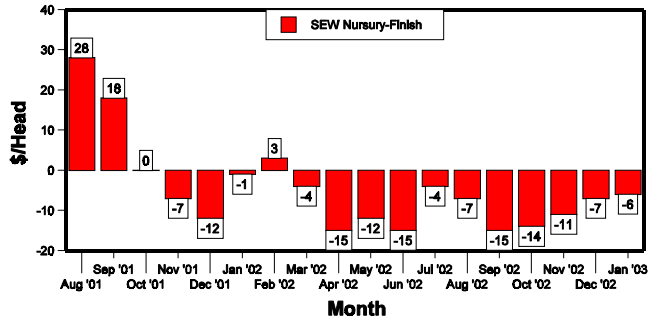
The example hog finishing budgets are calculated using a milo based feeding ration. Projected feed costs, based on current milo and supplement prices, are currently at \$19.18 per cwt. of live pork produced in the SEW nursery finish program.

Feed costs are primarily impacted by 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. As has been suggested for the past few months, the potential for a significant rally in feedgrain prices if drought conditions persist suggests that risk averse producers might consider "locking in" feedgrain prices for a portion of future needs. Call options appear to be reasonably priced given the current risk.

As expected, returns to labor and management averaged about \$-5.92 per pig for hogs exiting Kansas SEW nursery-finish barns in January. Preliminary calculations suggest that even larger losses were incurred in late February and March. Each month it seems that the projected return to profitability is delayed. Even though hog prices are expected to improve into summer, break-evens needed to cover costs will increase as well as higher priced weaned pigs work their way through the system. Specific returns attributed to nursery-finish operations may be dictated by how weaned pigs were purchased or valued into those programs.

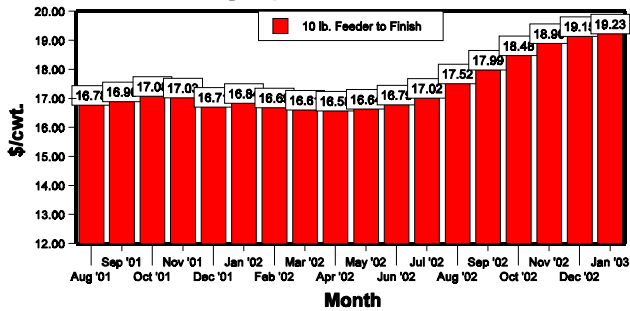
Average farrow-to-finish producers can cover variable costs in the mid \$30's, but need prices in the low to mid \$40's to cover all costs of production. World uncertainty (war, terrorist events, the sluggish economy) and continued drought that would drive up feed prices are primary risks facing hog producers through the remainder 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
March, 2003

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig ¹	\$30.38
Interest rate	8.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$4.09 / cwt.
Soybean meal price	\$179.50 / ton.

¹ Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

FEEDER	
1. Cost of weaned pig	\$30.38
2. Interest on weaned pig	\$ 1.13
FEED	
3. Grain	\$20.47
4. Soybean meal	\$11.58
5. Vitamins and minerals	\$ 8.74
6. Starter	\$ 1.93
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	\$ 0.23
FIXED COSTS	
15. Buildings and equipment	\$11.97
Sale Price Needed to Cover Variable Costs	\$37.70
Sale Price Needed to Cover Total Costs	\$42.84
Feed Cost Per Cwt. of Pork Produced	\$19.18

SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$25.00	\$27.00	\$29.00	\$31.00	\$33.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$17.00	38.34	39.23	40.13	41.02	41.91
\$18.00	39.32	40.21	41.10	41.99	42.88
\$19.00	40.29	41.18	42.07	42.96	43.86
\$20.00	41.26	42.16	43.05	43.94	44.83
\$21.00	42.24	43.13	44.02	44.91	45.80
\$22.00	43.21	44.10	44.99	45.89	46.78
\$23.00	44.19	45.08	45.97	46.86	47.75

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$38.00	\$40.00	\$42.00	\$44.00	\$46.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$17.00	24.22	28.71	33.20	37.68	42.18
\$18.00	22.04	26.53	31.02	35.50	40.00
\$19.00	19.86	24.35	28.84	33.32	37.82
\$20.00	17.68	22.17	26.66	31.14	35.64
\$21.00	15.50	19.99	24.48	28.96	33.46
\$22.00	13.32	17.81	22.30	26.78	31.28
\$23.00	11.14	15.63	20.12	24.60	29.10