



Livestock Farm Management Update

February 28, 2003

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,
Kansas State University, February 28, 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 February placements have decreased once again relative to the projections of recent months. The projected break-evens, for cattle expected to finish in about July, are in the \$68.50 to \$69.50 per cwt. range for steers and heifers. This represents a decrease of around \$7.00 per cwt. in the break-even projection in the past few months. Traditional weight feeder cattle prices continue to decrease as price expectations decline for summer finished cattle. Performance expectations for late winter placements improve considerably relative to fall placements. For example, feed conversions for February placements are expected to be 2% to 4% better than annual averages.

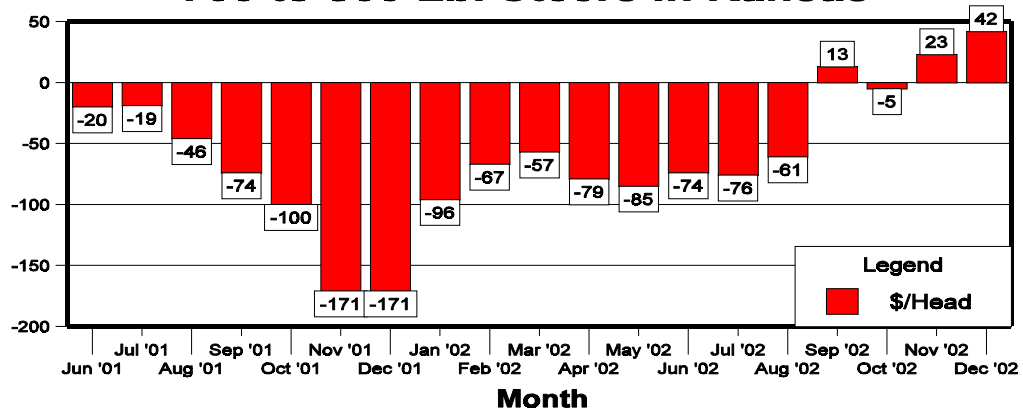
The ration charge projection continues to decline relative to earlier fall projections. Feedgrain and hay markets have been surprisingly weak, given the weather and production uncertainty. Combining the ration charge projection with February placement performance expectations results in a feeding cost of gain projection of \$50.35 per cwt. for traditional weight February steer placements, and \$53.83 per cwt. for traditional weight February heifer placements. Feed cost projections continue to decline relative to earlier estimates for late spring finished cattle. 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 winter 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. At the current time the implied volatility in the corn market is about average, so options are reasonably priced.

As expected, the average December steer closeout returned an average of about \$41.80 per head. Preliminary projections suggest much larger profits for early 2003 closeouts. Depending on individual pen factors, and the particular week the cattle were sold, January and February finished cattle likely returned \$70 to \$100 per head positive returns. If current price projections hold, cattle feeders are positioned to realize profits of \$50 to \$90 per head on March and April closeouts as well. Break-evens for current closeouts are averaging around \$72.50 per cwt., increasing to around \$73.50 per cwt. by late April or May.

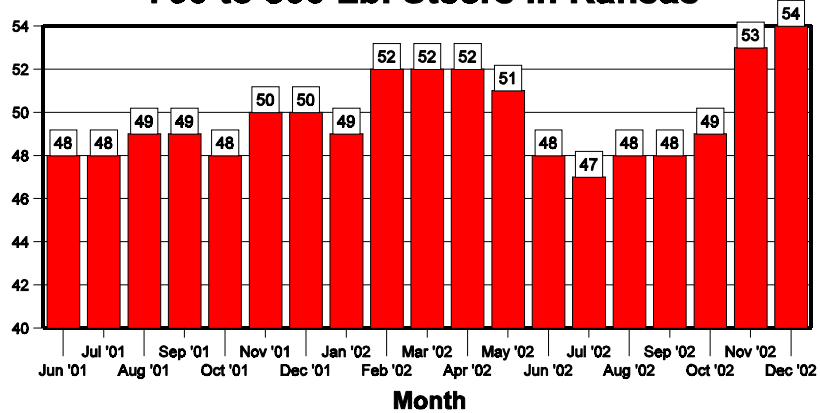
Supply numbers suggest a seasonal price decline into the summer, however break-evens will decline as well with lower valued feeder cattle working through the system. Looking ahead to late summer and the fall of 2003 there is a significant element of world uncertainty that must be factored into any profitability projections. The threat of war, 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.

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
February 2003 Placements (750 lb steers, 650 lb hfrs)

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) ¹	\$78.18	\$76.91
Interest rate	8.0%	8.0%
Ration charge (\$/ton) ²	\$113.98	\$113.98
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	149 days	148 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.35 lbs.	2.86 lbs.
Feed conversion (as fed)	7.94 lbs.	8.41 lbs.
Death loss (in conversion)	0.50%	0.50%
Cost Budgets	Steers	Heifers
Feeder		
1. Cost of feeder:	\$586.35	\$499.92
2. Interest on feeder:	\$ 19.18	\$ 16.28
Feed		
3. Total feed cost:	\$226.24	\$203.69
4. Interest on feed:	\$ 3.70	\$ 3.32
Other Costs		
5. Yardage Charge:	\$ 7.46	\$ 7.43
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$.35	\$.35
Breakeven selling price:	\$ 68.58	\$ 69.30
Total cost of gain/cwt:	\$ 54.16	\$ 57.66
Feeding cost of gain/cwt: ³	\$ 50.35	\$ 53.83

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

²Ration charge of \$113.98 based on corn price of \$2.61/bu., milo price of \$4.27/cwt., alfalfa hay price of \$92.50/ton, supplement price of \$210.00/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				
	\$76.00	\$78.00	\$80.00	\$82.00	\$84.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$48.00	66.29	67.53	68.77	70.01	71.25
\$49.00	66.69	67.93	69.17	70.41	71.65
\$50.00	67.09	68.33	69.57	70.81	72.05
\$51.00	67.49	68.73	69.97	71.21	72.45
\$52.00	67.89	69.13	70.37	71.61	72.85
\$53.00	68.29	69.53	70.77	72.01	73.25
\$54.00	68.69	69.93	71.17	72.41	73.65

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$74.00	\$76.00	\$78.00	\$80.00	\$82.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$51.00	66.36	67.61	68.86	70.11	71.36
\$52.00	66.76	68.01	69.26	70.51	71.75
\$53.00	67.16	68.40	69.65	70.90	72.15
\$54.00	67.55	68.80	70.05	71.30	72.55
\$55.00	67.95	69.19	70.44	71.69	72.94
\$56.00	68.34	69.59	70.84	72.09	73.34
\$57.00	68.74	69.99	71.23	72.48	73.73

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

	% Change Previous Year	2003	2002	2001	1990-2001 Average
January		54.50 ^P	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			47.56	48.20	50.86
July	- 3.6		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		71.75 ^P	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			69.56	74.85	70.34
July	- 4.8		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

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 February would be expected to finish in August. 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 February is \$32.34 per pig, consistent with the calculation of last month. Average Iowa direct weaned pig transfer prices have declined considerably over the past month to the point where the average is now well below the calculated formula price. Sluggish hog market projections are apparently impacting weaned pig cash transfer prices. 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 February is \$44.26 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 (\$25.40) results in a projected break-even to cover all costs of \$41.17 per cwt. Pigs placed in a nursery-finish program now are being placed against a futures based price forecast in the mid \$40's on a live weight basis, suggesting the potential for modest economic profits.

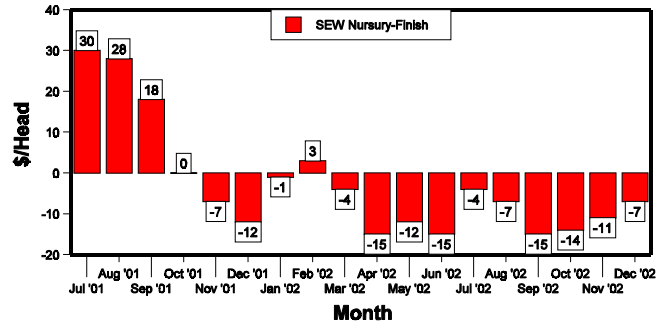
The example hog finishing budgets are calculated using a milo based feeding ration. Projected feed costs, based on current milo and supplement prices, are currently at \$19.74 per cwt. of live pork produced in the SEW nursery finish program. This projection is consistent with the previous few month's estimates. Cash milo prices

continue to decline, while soybean meal prices have increased somewhat in recent weeks. 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. The options alternatives appear to be reasonably priced given the current risk.

As expected, returns to labor and management averaged about \$-6.70 per pig for hogs exiting Kansas SEW nursery-finish barns in December. Early estimates suggest similar results for January and February. Returns are expected to slowly improve into the spring. Break-evens for average nursery-finish producers will average in the low \$40's per cwt. on a live weight basis for the next few months, and will increase to the mid \$40's as higher priced weaned pigs work their way through the system by May and June of 2003. Each month it seems that the projected return to profitability is delayed. Current futures based hog price forecasts suggest that prices will be at or slightly above break-even levels for average producers by late spring.

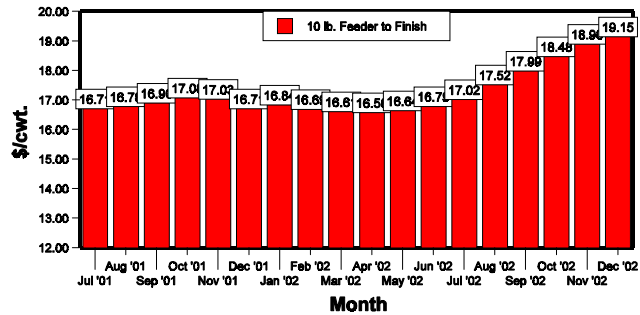
Average farrow-to-finish producers have break-evens in the low \$40's on a live weight basis for the foreseeable future. Futures based price forecasts suggest that positive net returns will return to these producers later in the spring as well. World uncertainty (war, terrorist events, the sluggish economy) 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

February, 2003

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig ¹	\$32.34
Interest rate	8.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$4.27 / cwt.
Soybean meal price	\$185.00 / ton.

¹Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

FEEDER	
1. Cost of weaned pig	\$32.34
2. Interest on weaned pig	\$ 1.20
FEED	
3. Grain	\$21.37
4. Soybean meal	\$11.93
5. Vitamins and minerals	\$ 8.74
6. Starter	\$ 1.93
7. Interest on feed	\$ 0.82
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	\$39.12
Sale Price Needed to Cover Total Costs	\$44.26
Feed Cost Per Cwt. of Pork Produced	\$19.74

SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$27.00	\$29.00	\$31.00	\$33.00	\$35.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$17.00	39.23	40.13	41.02	41.91	42.80
\$18.00	40.21	41.10	41.99	42.88	43.77
\$19.00	41.18	42.07	42.96	43.86	44.75
\$20.00	42.16	43.05	43.94	44.83	45.72
\$21.00	43.13	44.02	44.91	45.80	46.69
\$22.00	44.10	44.99	45.89	46.78	47.67
\$23.00	45.08	45.97	46.86	47.75	48.64

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$40.00	\$42.00	\$44.00	\$46.00	\$48.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$17.00	28.71	33.20	37.68	42.18	46.66
\$18.00	26.53	31.02	35.50	40.00	44.48
\$19.00	24.35	28.84	33.32	37.82	42.30
\$20.00	22.17	26.66	31.14	35.64	40.12
\$21.00	19.99	24.48	28.96	33.46	37.94
\$22.00	17.81	22.30	26.78	31.28	35.76
\$23.00	15.63	20.12	24.60	29.10	33.58