



Livestock Farm Management Update

August 30 2002

Prepared By Rodney Jones, Associate Professor / Extension Livestock Production Economist,
Kansas State University, August 30, 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 August placements have increased dramatically relative to the projections of last month. The projected break-evens, for cattle expected to finish in about January, are in the \$72.00 to \$73.00 per cwt. range for steers and heifers. Average traditional weight feeder cattle prices remain surprisingly strong, with recent price quotes often above \$80.00 per cwt. It is difficult to reconcile strength in feeder cattle prices with the following three factors: 1) the huge equity losses in the cattle feeding sector over the past 18 months; 2) rising feed ingredient prices; and 3) declining performance expectations for cattle placed over the next few months. The performance of August placements is expected to be close to annual averages, however, both average daily gains and feed conversions typically worsen for early fall placements.

Combining the ration charge projection with late August placement performance expectations results in a feeding cost of gain projection of \$54.75 per cwt. for traditional weight August steer placements, and \$58.45 per cwt. for traditional weight August heifer placements. These are dramatic (around 10%) increases from recent projections, and are based on current feed prices and seasonal average performance. Alternative projections based on use-weighted futures based price projections for feed ingredients yield even higher feeding cost of gain estimates. Risk averse producers may want to "lock in" feed ingredient prices to reduce the risk of higher than anticipated feeding costs. 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 May steer closeout returned about \$-74.50 per head, adding to the continuous period of severe financial losses that has now lasted well over a year. Preliminary estimates suggest average returns of \$-75.00 to \$-90.00 per head through August. Losses are now 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 will need to retreat before positive returns can be projected.

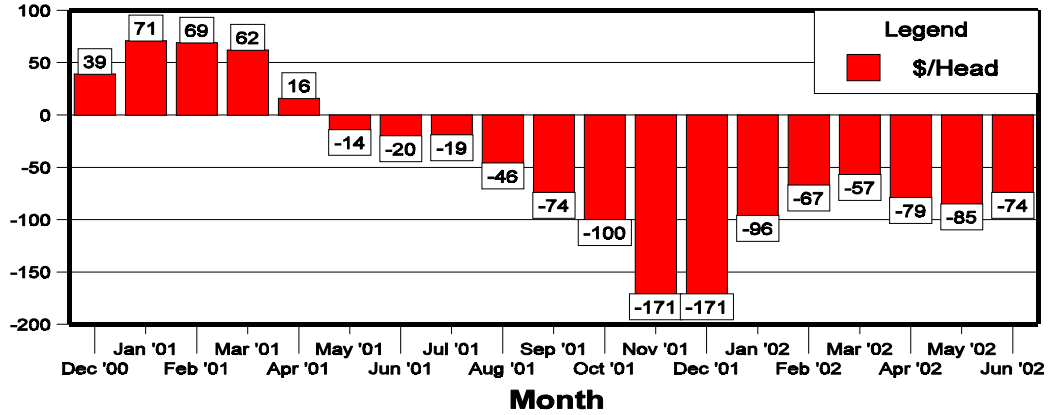
Similarly, based on current calf prices it is very difficult to project positive returns to any retained ownership backgrounding or confined feeding program. Abnormally large (\$-25.00 to \$-35.00) per head losses are projected for virtually any proposed ownership program. See last month's *Livestock Management Update* for a detailed discussion of some common options, and the

projected economic results for average producers. Calf prices have remained relatively strong in the face of rising feed prices, and uncertain feeder cattle and fed cattle price forecasts. There are some possible explanations for the unusually large disparity between average break-even projections and futures based price forecasts for early 2003 for retained ownership programs. First, other regions in the country have been blessed with sufficient moisture, heightening the prospects for fall and winter grazing programs on cool season forages. These programs result in lower cost-of-gain projections than drylot confined feeding programs under current feed price conditions, and justify higher prices for calves that can be placed in those growing programs. In addition, there appear to be a significant number of calf and feeder cattle buyers who believe that futures based price forecasts for early 2003 cattle prices are “too low”, justifying somewhat higher bids for feeder cattle and calves. Finally, there are a lot of producers who have an abundance of silage available (due to salvaging a drought stressed crop) with a fairly low “opportunity value”. Feed resources of this type can sometimes be priced into budget projections at lower values than the comparable feed ingredients that are typically assumed, resulting in more attractive economic outcomes and the ability to “bid up” calf prices. These factors may provide enough support to calf prices this fall that it will be difficult for producers who do not have the competitive advantage of either fall / winter grazing resources, or lower valued feed ingredients to reap a positive return to calf ownership programs. Watch local markets carefully for buying opportunities, and carefully evaluate the calf ownership decision this fall.

This year it is especially difficult to predict the economic fate of the cow-calf producer in Kansas. While lower than year ago levels, fall calf prices remain high enough to generate some level of positive returns (at least over variable costs) for the average producer under normal circumstances. For many Kansas producers, however, circumstances have been anything but normal. Cow maintenance costs under drought conditions can increase quickly, and by a large magnitude. Due to the wide disparity in resource availability across the state, the range in cow-calf returns will be even larger than we see in more normal years. In situations where crop residue and other low cost fall and winter forage is in very short supply, managers need to carefully scrutinize the cow ownership decision. See last month’s *Livestock Management Update* for a complete discussion of the difficult management choices facing cow-calf producers in drought stricken areas.

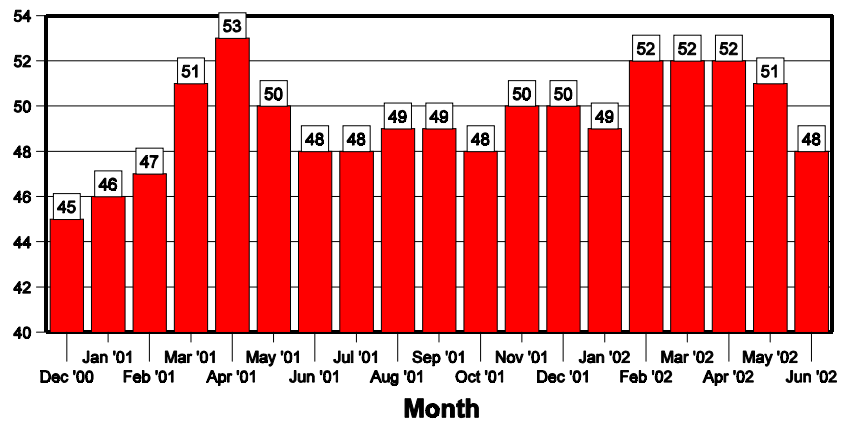
Continued dry conditions, and the associated impact on the overall cattle cycle, will provide management challenges to many, and opportunities to others. To assist producers in making tough management choices, timely livestock marketing and management information can be found at www.agecon.ksu.edu/livestock. Spreadsheet templates to help producers develop budget projections, as well as previous issues of the *Livestock Management Update*, can be found at www.agecon.ksu.edu/rdjones.

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
August 2002 Placements (750 lb steers, 650 lb hfrs)

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) ¹	\$80.85	\$79.75
Interest rate	8.5%	8.5%
Ration charge (\$/ton) ²	\$121.59	\$121.59
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	146 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.38 lbs.	2.91 lbs.
Feed conversion (as fed)	8.15 lbs.	8.63 lbs.
Death loss (in conversion)	0.50%	0.50%
Cost Budgets	Steers	Heifers
Feeder		
1. Cost of feeder:	\$606.38	\$518.38
2. Interest on feeder:	\$ 20.89	\$ 17.63
Feed		
3. Total feed cost:	\$247.73	\$222.97
4. Interest on feed:	\$ 4.27	\$ 3.79
Other Costs		
5. Yardage Charge:	\$ 7.40	\$ 7.30
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$.37	\$.36
Breakeven selling price:	\$ 72.08	\$ 72.97
Total cost of gain/cwt:	\$ 58.93	\$ 62.60
Feeding cost of gain/cwt: ³	\$ 54.75	\$ 58.45

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

²Ration charge of \$121.59 based on corn price of \$2.85/bu., milo price of \$4.42/cwt., alfalfa hay price of \$110.00/ton, supplement price of \$214.00/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.)				
\$51.00	67.57	68.81	70.05	71.29	72.54
\$52.00	67.97	69.21	70.45	71.69	72.94
\$53.00	68.37	69.61	70.85	72.09	73.34
\$54.00	68.77	70.01	71.25	72.49	73.74
\$55.00	69.17	70.41	71.65	72.89	74.14
\$56.00	69.57	70.81	72.05	73.29	74.54
\$57.00	69.97	71.21	72.45	73.69	74.94

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.)				
\$55.00	68.64	69.89	71.14	72.39	73.64
\$56.00	69.03	70.28	71.53	72.78	74.03
\$57.00	69.43	70.68	71.93	73.18	74.43
\$58.00	69.82	71.07	72.32	73.57	74.82
\$59.00	70.22	71.47	72.72	73.97	75.22
\$60.00	70.61	71.86	73.11	74.36	75.61
\$61.00	71.01	72.26	73.51	74.76	76.01

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		48.50 ^P	48.42	43.01	50.29
August		50.00 ^P	48.88	43.43	52.04
September		51.50 ^P	48.77	43.10	51.07
October		53.00 ^P	47.78	43.24	51.68
November		54.00 ^P	49.98	44.05	51.84
December			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		69.56	74.85	71.72	70.21
July		71.22 ^P	72.47	69.99	69.50
August		70.54 ^P	73.48	69.69	68.86
September		69.10 ^P	74.39	69.82	68.54
October		69.24 ^P	74.20	69.92	68.74
November		69.59 ^P	77.46	72.56	70.60
December			76.46	73.62	71.35

^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 August would be expected to finish in February 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 August is \$23.01 per pig, down slightly 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. Average weaned pig prices (both formula and cash) remain well below break-even levels for average farrowing operations, which are increasing due to higher feed prices.

The projected sale price needed to cover all costs associated with finishing formula priced early weaned pigs started on feed in August is \$40.73 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 (\$19.50) results in a projected break-even to cover all costs of \$39.16 per cwt. These projections are higher than the projections of recent months due to increasing feed prices.

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

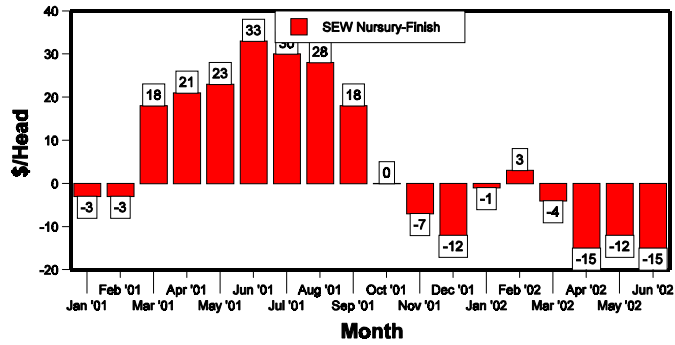
supplement prices, are currently at \$20.28 per cwt. of live pork produced in the SEW nursery finish program. This projection represents another significant increase over the estimates from a few months ago.

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 \$-15.00 per pig for hogs exiting Kansas SEW nursery-finishing barns in June. Rising feed prices, and rapidly declining hog prices, have forced me to revise my late summer profitability projections downward. It now appears that average nursery-finish producers could fall \$25.00 to \$40.00 per head short of covering all costs throughout much of the fall.

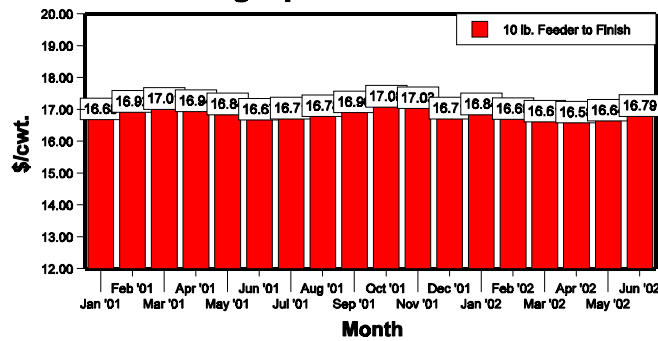
Projected break-evens to cover all costs for average Kansas farrow-to-finish producers are increasing as well. Based on current feed prices, break-evens are around \$45.50 per cwt. on a live basis for average producers. Both current hog prices, and futures based price forecasts for the fall, have declined significantly in recent weeks increasing both the likelihood and the magnitude of economic losses for pork producers at all levels of the pork production system.

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

August, 2002

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig ¹	\$23.01
Interest rate	9.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$4.42 / cwt.
Soybean meal price	\$189.00 / ton.

¹ Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

FEEDER	
1. Cost of weaned pig	\$23.01
2. Interest on weaned pig	\$ 0.96
FEED	
3. Grain	\$22.12
4. Soybean meal	\$12.19
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.95
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	\$ 0.26
FIXED COSTS	
15. Buildings and equipment	\$11.97
Sale Price Needed to Cover Variable Costs	\$35.59
Sale Price Needed to Cover Total Costs	\$40.73
Feed Cost Per Cwt. of Pork Produced	\$20.28

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.)				
\$16.00	36.29	37.18	38.08	38.97	39.87
\$17.00	37.26	38.16	39.05	39.95	40.84
\$18.00	38.24	39.13	40.03	40.92	41.82
\$19.00	39.21	40.11	41.00	41.90	42.79
\$20.00	40.19	41.09	41.98	42.88	43.77
\$21.00	41.17	42.06	42.96	43.85	44.75
\$22.00	42.14	43.04	43.93	44.83	45.72

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				
\$16.00			3.95	8.43	12.89
\$17.00			1.77	6.25	10.71
\$18.00				4.07	8.53
\$19.00				1.89	6.35
\$20.00					4.17
\$21.00					1.99
\$22.00					