



Livestock Farm Management Update

January, 2001

Prepared By Rodney Jones, Assistant Professor / Extension Livestock Production Economist,
Kansas State University, January 29, 2001.

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Cattle Production Budgets and Returns

By Rodney Jones, Extension Livestock Production Economics

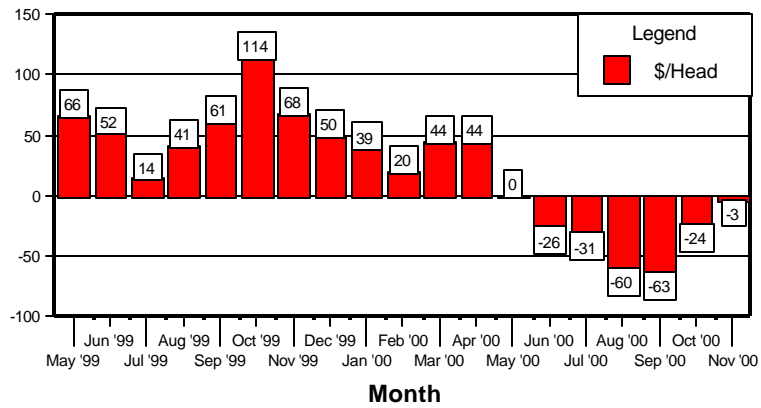
Based on this month's traditional cattle finishing budgets for 750 pound steers and 650 pound heifers, the expected break-even prices for late January placements decreased significantly from the projections of the previous month. The projected break-evens, for cattle expected to finish in about June, are in the \$73.50 to \$74.00 per cwt. range for steers and heifers. Feeder cattle prices declined somewhat from the previous month, and feed ingredient prices declined as well. Performance expectations for January placements are only slightly below annual averages, as we are entering the time of year when performance expectations improve significantly.

Cash feedgrain prices declined by about 10% relative to last month. Hay and supplement prices remain high, as concerns regarding hay supplies continue. The estimated ration charge declined nearly 6% relative to last month, following strong increases the previous two months. Combining the ration charge projection with January placement performance expectations results in a feeding cost of gain projection of \$47.65 per cwt. for January steer placements, and \$50.20 per cwt. for January 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 consistent with "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 winter performance estimates, each \$0.10 per bushel change in corn price changes feeding cost of gain by \$1.36 per cwt. Each \$10.00 per ton change in hay prices changes feeding cost of gain by \$0.54 per cwt. Feeding cost of gain changes by \$0.56 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. Feeders may want to consider pricing future feedgrain needs on market dips, especially for the summer months.

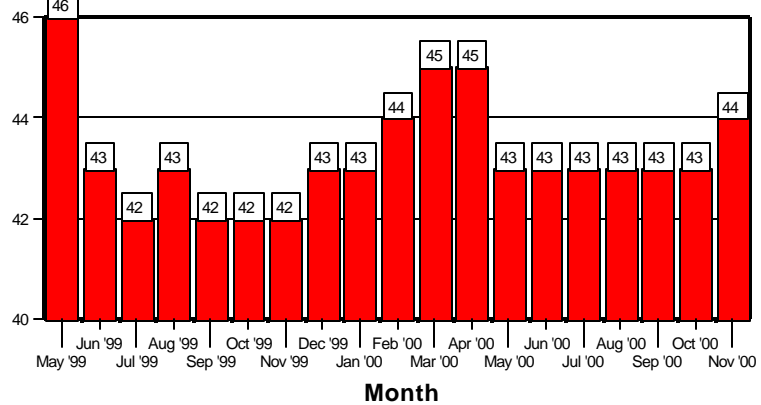
Average cattle feeders just about broke even on November closeouts. For example, the average November steer closeout in Kansas generated a loss of about \$2.90 per head. The modest losses resulted from an average break-even price of \$72.56 combined with a monthly average selling price of \$72.33. Cattle finished late in the month of November were more likely to generate positive returns, as cash prices increased throughout the month. Preliminary estimates suggest modest profits on December closeouts, and positive returns continuing into January. Break-evens on current closeouts are averaging in the \$73.50 to \$74.50 range. Unfavorable winter weather could result in actual feed conversions coming in worse than anticipated, raising the actual break-evens on spring closeouts and reducing the potential for profits.

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
January 2001 Placements (750 lb steers, 650 lb hfrs)

Assumptions	Steers	Heifers
Cost of feeder (\$/cwt.) ¹	\$87.08	\$85.63
Interest rate	9.8%	9.8%
Ration charge (\$/ton) ²	\$102.90	\$102.90
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	158 days	153 days
Shrink	4.0%	4.0%
Pay weight to pay weight:		
average daily gain	3.17 lbs.	2.77 lbs.
Feed conversion (as fed)	8.22 lbs.	8.57 lbs.
Death loss (in conversion)	0.50%	0.50%
Cost Budgets	Steers	Heifers
Feeder		
1. Cost of feeder:	\$653.10	\$556.60
2. Interest on feeder:	\$ 27.52	\$ 22.81
Feed		
3. Total feed cost:	\$211.46	\$187.40
4. Interest on feed:	\$ 4.45	\$ 3.84
Other Costs		
5. Yardage Charge:	\$ 7.89	\$ 7.67
6. Processing Charge:	\$ 7.00	\$ 7.00
8. Vet, drugs, supplies:	\$ 7.00	\$ 7.00
9. Interest on other V.C.:	\$.46	\$.44
Breakeven selling price:	\$ 73.51	\$ 73.74
Total cost of gain/cwt:	\$ 53.16	\$ 55.57
Feeding cost of gain/cwt: ³	\$ 47.65	\$ 50.20

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

²Ration charge of \$102.90 based on corn price of \$2.15/bu., milo price of \$3.54/cwt., alfalfa hay price of \$116.00/ton, supplement price of \$191.60/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				
	\$83.00	\$85.00	\$87.00	\$89.00	\$91.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$47.00	70.70	71.95	73.20	74.45	75.70
\$48.00	71.10	72.35	73.60	74.85	76.10
\$49.00	71.50	72.75	74.00	75.25	76.50
\$50.00	71.90	73.15	74.40	75.65	76.90
\$51.00	72.30	73.55	74.80	76.05	77.30
\$52.00	72.70	73.95	75.20	76.45	77.70
\$53.00	73.10	74.35	75.60	76.85	78.10

Commercial Feedlot

Sensitivity Analysis of Breakeven Prices for 650 lb. Heifers

	Feeder purchase price				
	\$82.00	\$84.00	\$86.00	\$88.00	\$90.00
Feeding Cost of Gain (\$/cwt.)	-----Breakeven Price----- (\$/cwt.)				
\$50.00	71.38	72.64	73.90	75.16	76.42
\$51.00	71.78	73.04	74.29	75.55	76.81
\$52.00	72.17	73.43	74.69	75.95	77.21
\$53.00	72.57	73.83	75.08	76.34	77.60
\$54.00	72.96	74.22	75.48	76.74	78.00
\$55.00	73.36	74.62	75.88	77.13	78.39
\$56.00	73.75	75.01	76.27	77.53	78.79

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

	% Change Previous Year	2001	2000	1999	1990-1999 Average
January		47.50 ^P	43.11	47.65	53.10
February		50.00 ^P	43.76	47.94	55.35
March		51.00 ^P	44.97	47.66	55.99
April		50.50 ^P	44.55	47.94	53.86
May		50.00 ^P	43.29	45.56	53.26
June		48.50 ^P	43.20	42.62	51.19
July			43.01	42.30	50.24
August	+ 0.6		43.43	43.15	50.82
September	+ 1.6		43.10	42.41	51.09
October	+ 2.4		43.24	42.19	51.15
November	+ 4.8		44.05	42.04	51.69
December			44.50 ^P	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		73.33 ^P	65.68	61.92	72.34
February		73.90 ^P	67.47	60.39	72.48
March		74.28 ^P	68.15	61.51	72.03
April		75.12 ^P	69.61	61.63	71.63
May		76.17 ^P	71.27	59.71	71.28
June		74.46 ^P	71.72	62.21	69.67
July			69.99	63.05	69.67
August	+12.5		69.69	61.90	68.61
September	+13.9		69.82	61.29	68.48
October	+15.2		69.92	60.70	68.68
November	+12.1		72.56	64.73	70.52
December			73.73 ^P	65.02	71.26

^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 January would be expected to finish in July. 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 January remained about the same as last month, at \$33.96 per pig. The formula pig price is about \$4.50 per pig lower than the mid point of the recent reported Iowa direct weaned pig transfer 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 January is \$43.19 per cwt. on a live weight basis, a significant decline from last month's projection. Pricing the weaned pig into the nursery-finish program at the mid-point of the recent Iowa reported cash transfer price (\$38.45) results in a projected break-even to cover all costs of \$45.21 per cwt. At current input prices, average farrow-to-weaned pig producers need about \$24.21 per pig to cover variable costs, and about \$31.74 per pig to cover all costs of production, so both the formula price and the traded market weaned pig price are yielding modest profits for farrowing operators..

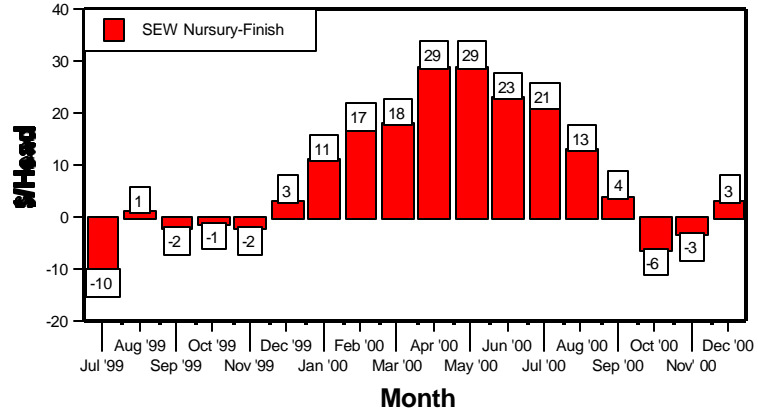
The example hog finishing budgets are calculated using a milo based feeding ration. Projected feed costs, based on current milo and supplement prices, are currently at

\$17.65 per cwt. of pork produced in the SEW nursery finish program. This projection represents a significant decline from recent months. 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. Prices of both of these feed ingredients have declined significantly over the past month. The recent feed ingredient price declines might be viewed as a "window of opportunity" to price future feed ingredient needs at attractive values. Producers may especially want to consider pricing summer feed needs on market dips.

Calculated average returns to labor and management turned positive for hogs exiting Kansas SEW nursery-finishing barns in December, at about \$3.36 per head. Break-even prices to cover all costs for average producers are currently around \$40.00 per cwt. on a live weight basis, and appear likely to remain at that level for the foreseeable future. Futures based price projections suggest positive returns to labor and management through early 2001.

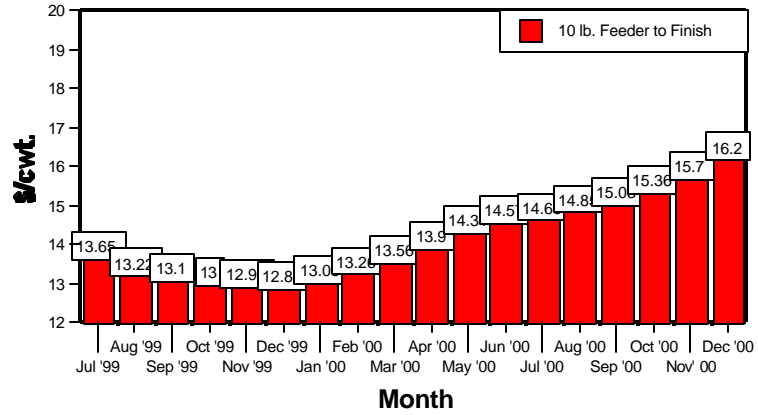
Average Kansas farrow-to-finish producers needed slightly over \$41.00 per cwt. to cover all costs on 4th quarter production. Quarterly average sale prices were slightly under \$40.00 per cwt. on a live weight basis, resulting in modest losses of around \$6.00 per head relative to total costs of production. Projections for early 2001 have been revised to reflect lower feed prices. Break-evens to cover all costs for average farrow-to-finish producers will likely be around \$42.00 per cwt. for early 2001 production.

Returns to Labor and Management Finishing Operations in Kansas



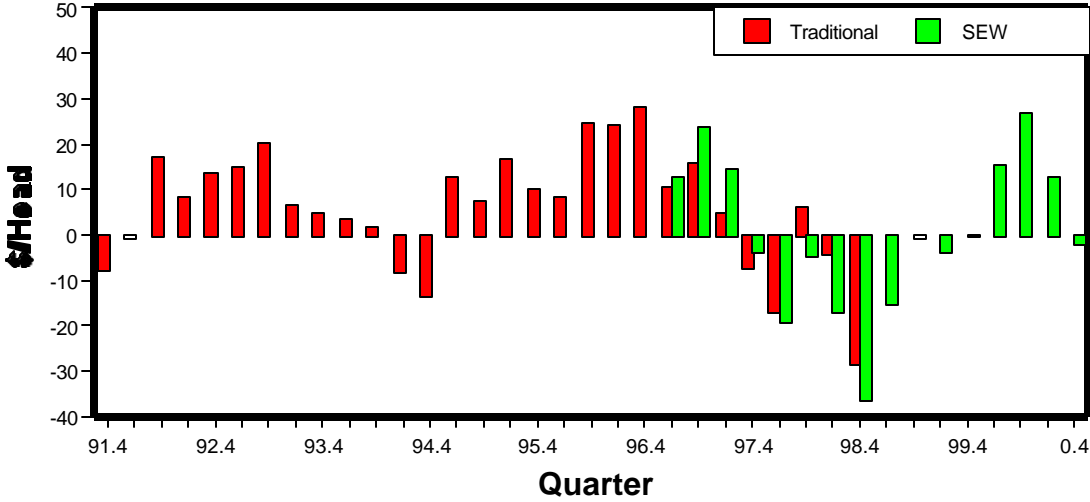
Source: KSU Swine Return Series.

Feed Costs Per Cwt. SEW Nursery Finishing Operations in Kansas



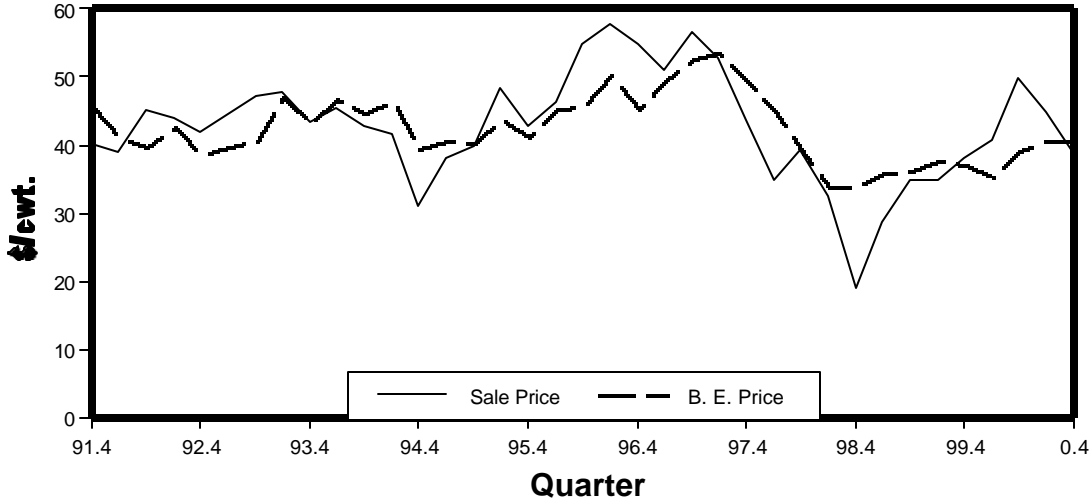
Source: KSU Swine Return Series.

Quarterly Returns to Labor & Management For Kansas Hog Finishers



Source: KSU Swine Return Series.

Average Sale Price & Breakeven Price For Kansas Hog Finishers



SEW NURSERY- FINISHING BUDGET

January, 2001

Assumptions	Barrows and Gilts
Initial weight of weaned pig	10 lbs.
Cost of weaned pig ¹	\$33.96
Interest rate	10.0 %
Feed conversion	3.00 lbs.
Death loss	5.00 %
Milo price	\$3.54 / cwt.
Soybean meal price	\$166.60 / ton.

¹ Weaned pig prices based on KSU formula.

COST BUDGET FOR FINISHING PIGS

FEEDER

1. Cost of weaned pig	\$33.96
2. Interest on weaned pig	\$ 1.58

FEED

3. Grain	\$17.72
4. Soybean meal	\$10.75
5. Vitamins and minerals	\$ 8.41
6. Starter	\$ 2.45
7. Interest on feed	\$ 0.92

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	\$38.04
Sale Price Needed to Cover Total Costs	\$43.19

Feed Cost Per Cwt. of Pork Produced	\$17.65
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SEW Nursery-Finishing

Sensitivity Analysis of Break-even Sale Price

	Purchase Price for 10 Lb. Weaned Pig				
	\$30.00	\$32.00	\$34.00	\$36.00	\$38.00
Feed Cost Per Cwt.	Break-even Sale Price for Market Hog (\$/cwt.)				
\$16.00	39.81	40.71	41.61	42.51	43.41
\$17.00	40.79	41.69	42.59	43.49	44.38
\$18.00	41.77	42.67	43.56	44.46	45.36
\$19.00	42.74	43.64	44.54	45.44	46.34
\$20.00	43.72	44.62	45.52	46.42	47.32
\$21.00	44.70	45.60	46.50	47.40	48.30
\$22.00	45.68	46.58	47.48	48.38	49.28

SEW Nursery-Finishing

Sensitivity Analysis of Maximum Weaned Pig Price

	Expected Sale Price for Market Hogs				
	\$42.00	\$44.00	\$46.00	\$48.00	\$50.00
Feed Cost Per Cwt.	Maximum Purchase Price for 10 lb. Weaned Pig				
\$16.00	34.88	39.35	43.78	48.24	52.69
\$17.00	32.70	37.17	41.60	46.06	50.51
\$18.00	30.52	34.99	39.42	43.88	48.33
\$19.00	28.34	32.81	37.24	41.70	46.15
\$20.00	26.16	30.63	35.06	39.52	43.97
\$21.00	23.98	28.45	32.88	37.34	41.79
\$22.00	21.80	26.27	30.70	36.16	39.61