

ESTIMATED COSTS AND RETURNS FOR FEEDER CATTLE AND FEEDER PIGS BOUGHT APRIL 2, 2001

Ration or hog price	STEER CALF		HEIFER CALF		YEARLING STEER		YEARLING HEIFER		HOG FEEDING	
	Silage	Hay	Silage	Hay	Silage	Hay	Silage	Hay	Live base	Lean base
Selling date	25-Nov-01		23-Oct-01		3-Sep-01		23-Aug-01		04-Aug-01	
Selling weight (shrunk) ¹	1150 lb.		1050 lb.		1250 lb.		1125 lb.		250 lb.	
Purchase cost (\$)	108.00 /cwt.		99.00 /cwt.		88.00 /cwt.		85.00 /cwt.		54.00 /hd.	
Purchase weight (lb.)	550		525		750		725		50	
Days on feed, average daily gain	237	2.53	204	2.57	154	3.25	143	2.80	124	1.61
Cost information										
Corn fed (bu.)	48	67	47	59	52	63	43	54	10.4	
Corn silage fed (ton)	2.45	XX	1.9	XX	1.5	XX	1.26	XX	XX	
Hay (ton)	XX	0.6	XX	0.5	XX	0.35	XX	0.27	XX	
Supplement fed (lb.) ²	192	192	168	168	116	116	117	117	138	
Death loss (% of feeder value)	1	1	1	1	0.75	0.75	0.75	0.75	4	
Interest rate (%)	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	
Labor (hrs.)	3	3	2.5	2.5	2	2	2	2	0.75	
Marketing & misc. cost (\$)	14	14	13	13	16	16	12	12	2	
Vet & med cost (\$)	10	10	10	10	8	8	6	6	1.5	
Operating cost (\$)	14	14	12	12	9	9	9	9	2	
Fixed cost (\$)	24	24	20	20	15	15	15	15	12	
Total feed costs (\$)	140.69	175.09	128.51	152.41	123.20	142.15	102.11	119.16	39.76	
Total costs (\$)	869.45	904.94	760.88	785.43	882.19	901.52	806.75	824.13	121.93	
Breakeven selling price (\$/cwt.)	\$75.60	\$78.69	\$72.46	\$74.80	\$70.57	\$72.12	\$71.71	\$73.26	\$48.77	\$65.91
Est. cash selling price (\$/cwt.)	\$74.00	\$74.00	\$72.00	\$72.00	\$71.00	\$71.00	\$71.00	\$71.00	\$47.00	\$63.30
Returns to labor & FC (\$/hd.)	\$29.55	-\$5.94	\$35.12	\$10.57	\$36.31	\$16.98	\$23.00	\$5.62	\$13.57	\$13.57
Returns to fixed costs (\$/hd.)	\$5.55	-\$29.94	\$15.12	-\$9.43	\$20.31	\$0.98	\$7.00	-\$10.38	\$7.57	\$7.57
Profit with cash market (\$/hd.)	-\$18.45	-\$53.94	-\$4.88	-\$29.43	\$5.31	-\$14.02	-\$8.00	-\$25.38	-\$4.43	-\$4.43
Est. hedged selling price (\$/cwt.)	\$74.18	\$74.18	\$72.65	\$72.65	\$71.38	\$71.38	\$71.46	\$71.46	\$47.17	\$63.52
Returns to labor & FC (\$/hd.)	\$31.65	-\$3.83	\$41.90	\$17.35	\$41.03	\$21.70	\$28.15	\$10.78	\$13.99	\$13.99
Returns to fixed costs (\$/hd.)	\$7.65	-\$27.83	\$21.90	-\$2.65	\$25.03	\$5.70	\$12.15	-\$5.22	\$7.99	\$7.99
Profit with hedge (\$/hd.)	-\$16.35	-\$51.83	\$1.90	-\$22.65	\$10.03	-\$9.30	-\$2.85	-\$20.22	-\$4.01	-\$4.01

ASSUMPTIONS

Corn price for most cattle:	\$1.75 /bu.	Silage:	\$13.74 /ton	Calf supplement:	\$0.12 /lb.
Corn price for yrling hfrs & hogs:	\$1.70 /bu.	Hay price:	\$58.00 /ton	Yearling supplement:	\$0.10 /lb.
Labor charge:	\$8.00 /hr.			Hog supplement:	\$0.16 /lb.

¹Three percent shrink for cattle.

²Includes minerals.

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STEER CALF ON CORN SILAGE

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$70.00	\$72.00	\$74.00	\$76.00	\$78.00
\$1.45	96.21	100.11	104.00	107.90	111.80
\$1.60	94.95	98.85	102.74	106.64	110.54
\$1.75	93.69	97.59	101.49	105.38	109.28
\$1.90	92.44	96.33	100.23	104.12	108.02
\$2.05	91.18	95.07	98.97	102.87	106.76

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$104.00	\$106.00	\$108.00	\$110.00	\$112.00
\$1.45	72.26	73.29	74.31	75.34	76.37
\$1.60	72.91	73.93	74.96	75.99	77.01
\$1.75	73.55	74.58	75.60	76.63	77.66
\$1.90	74.20	75.22	76.25	77.28	78.30
\$2.05	74.84	75.87	76.90	77.92	78.95

HEIFER CALF ON CORN SILAGE

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$68.00	\$70.00	\$72.00	\$74.00	\$76.00
\$1.45	89.62	93.38	97.14	100.90	104.66
\$1.60	88.33	92.09	95.84	99.60	103.36
\$1.75	87.03	90.79	94.55	98.31	102.06
\$1.90	85.74	89.49	93.25	97.01	100.77
\$2.05	84.44	88.20	91.96	95.71	99.47

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$95.00	\$97.00	\$99.00	\$101.00	\$103.00
\$1.45	68.96	70.02	71.09	72.15	73.21
\$1.60	69.65	70.71	71.77	72.84	73.90
\$1.75	70.34	71.40	72.46	73.53	74.59
\$1.90	71.03	72.09	73.15	74.22	75.28
\$2.05	71.72	72.78	73.84	74.91	75.97

STEER CALF ON HAY

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$70.00	\$72.00	\$74.00	\$76.00	\$78.00
\$1.45	91.20	95.09	98.99	102.88	106.78
\$1.60	89.44	93.34	97.23	101.13	105.02
\$1.75	87.68	91.58	95.48	99.37	103.27
\$1.90	85.93	89.82	93.72	97.61	101.51
\$2.05	84.17	88.07	91.96	95.86	99.75

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$104.00	\$106.00	\$108.00	\$110.00	\$112.00
\$1.45	74.83	75.86	76.89	77.91	78.94
\$1.60	75.74	76.76	77.79	78.82	79.84
\$1.75	76.64	77.66	78.69	79.72	80.74
\$1.90	77.54	78.57	79.59	80.62	81.65
\$2.05	78.44	79.47	80.49	81.52	82.55

HEIFER CALF ON HAY

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$68.00	\$70.00	\$72.00	\$74.00	\$76.00
\$1.45	85.89	89.65	93.41	97.17	100.92
\$1.60	84.27	88.02	91.78	95.54	99.30
\$1.75	82.64	86.40	90.15	93.91	97.67
\$1.90	81.01	84.77	88.53	92.29	96.04
\$2.05	79.39	83.14	86.90	90.66	94.42

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$95.00	\$97.00	\$99.00	\$101.00	\$103.00
\$1.45	70.94	72.01	73.07	74.14	75.20
\$1.60	71.81	72.87	73.94	75.00	76.07
\$1.75	72.67	73.74	74.80	75.87	76.93
\$1.90	73.54	74.60	75.67	76.73	77.80
\$2.05	74.41	75.47	76.53	77.60	78.66

YEARLING STEER ON CORN SILAGE

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$67.00	\$69.00	\$71.00	\$73.00	\$75.00
\$1.45	81.80	84.98	88.16	91.34	94.51
\$1.60	80.79	83.97	87.14	90.32	93.50
\$1.75	79.78	82.95	86.13	89.31	92.49
\$1.90	78.76	81.94	85.12	88.30	91.48
\$2.05	77.75	80.93	84.11	87.29	90.47

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$84.00	\$86.00	\$88.00	\$90.00	\$92.00
\$1.45	66.78	68.04	69.30	70.56	71.82
\$1.60	67.42	68.68	69.94	71.20	72.45
\$1.75	68.06	69.32	70.57	71.83	73.09
\$1.90	68.70	69.95	71.21	72.47	73.73
\$2.05	69.33	70.59	71.85	73.11	74.37

YEARLING HEIFER ON CORN SILAGE

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$67.00	\$69.00	\$71.00	\$73.00	\$75.00
\$1.40	77.10	80.07	83.04	86.01	88.98
\$1.55	76.24	79.21	82.17	85.14	88.11
\$1.70	75.37	78.34	81.31	84.27	87.24
\$1.85	74.50	77.47	80.44	83.41	86.37
\$2.00	73.64	76.60	79.57	82.54	85.51

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$81.00	\$83.00	\$85.00	\$87.00	\$89.00
\$1.40	67.85	69.20	70.54	71.89	73.24
\$1.55	68.43	69.78	71.13	72.48	73.82
\$1.70	69.02	70.36	71.71	73.06	74.41
\$1.85	69.60	70.95	72.30	73.64	74.99
\$2.00	70.18	71.53	72.88	74.23	75.58

YEARLING STEER ON HAY

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$67.00	\$69.00	\$71.00	\$73.00	\$75.00
\$1.45	79.77	82.95	86.13	89.31	92.48
\$1.60	78.54	81.72	84.90	88.08	91.26
\$1.75	77.32	80.50	83.67	86.85	90.03
\$1.90	76.09	79.27	82.45	85.63	88.81
\$2.05	74.86	78.04	81.22	84.40	87.58

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$84.00	\$86.00	\$88.00	\$90.00	\$92.00
\$1.45	68.06	69.32	70.58	71.84	73.10
\$1.60	68.83	70.09	71.35	72.61	73.87
\$1.75	69.61	70.86	72.12	73.38	74.64
\$1.90	70.38	71.64	72.89	74.15	75.41
\$2.05	71.15	72.41	73.67	74.92	76.18

YEARLING HEIFER ON HAY

Maximum price to pay for feeder (\$/cwt.)and earn \$20 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$67.00	\$69.00	\$71.00	\$73.00	\$75.00
\$1.40	75.26	78.22	81.19	84.16	87.13
\$1.55	74.17	77.13	80.10	83.07	86.04
\$1.70	73.08	76.05	79.01	81.98	84.95
\$1.85	71.99	74.96	77.92	80.89	83.86
\$2.00	70.90	73.87	76.84	79.80	82.77

Slaughter price needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$81.00	\$83.00	\$85.00	\$87.00	\$89.00
\$1.40	69.09	70.44	71.79	73.14	74.48
\$1.55	69.83	71.17	72.52	73.87	75.22
\$1.70	70.56	71.91	73.26	74.60	75.95
\$1.85	71.29	72.64	73.99	75.34	76.69
\$2.00	72.03	73.38	74.72	76.07	77.42

HOG FEEDING

Maximum price to pay for feeder (\$/hd.) and earn \$10 profit/head

Corn Price	Slaughter price (\$/cwt.)				
	\$43.00	\$45.00	\$47.00	\$49.00	\$51.00
\$1.40	34.19	38.85	43.51	48.17	52.83
\$1.55	32.72	37.38	42.04	46.69	51.35
\$1.70	31.24	35.90	40.56	45.22	49.88
\$1.85	29.76	34.42	39.08	43.74	48.40
\$2.00	28.28	32.94	37.60	42.26	46.92

Slaughter price (live) needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$50.00	\$52.00	\$54.00	\$56.00	\$58.00
\$1.40	45.78	46.64	47.50	48.36	49.22
\$1.55	46.42	47.28	48.14	48.99	49.85
\$1.70	47.05	47.91	48.77	49.63	50.49
\$1.85	47.69	48.55	49.40	50.26	51.12
\$2.00	48.32	49.18	50.04	50.90	51.76

Slaughter price (lean) needed to cover all costs (\$/cwt.)

Corn Price	Feeder price (\$/cwt.)				
	\$50.00	\$52.00	\$54.00	\$56.00	\$58.00
\$1.40	61.87	63.03	64.19	65.35	66.51
\$1.55	62.73	63.89	65.05	66.21	67.37
\$1.70	63.59	64.75	65.91	67.07	68.23
\$1.85	64.44	65.60	66.76	67.92	69.08
\$2.00	65.30	66.46	67.62	68.78	69.94

Explanation of tables

The summary table with nine different livestock budgets is based on assumptions from Iowa State University. The breakeven selling price needed covers all costs. The hedged selling price is the selling price based on the futures market on the feeder purchase date adjusted for the basis, interest on the margin, and transactions costs. Returns to labor and fixed costs equal the income based on the hedged price minus all costs except labor and fixed costs. Returns to fixed costs equals the previous number minus the labor charge (hours of labor times the labor charge per hour). Profit equals the income based on the hedged price minus all costs. Hog prices exclude premiums/discounts.

The silage value uses the opportunity cost of harvesting as cash grain. A 2000 harvest price of \$1.40 is multiplied by 140 bushels per acre. From this number is subtracted the grain harvesting and trucking to town costs. Extra nutrient removal from silage, silage harvesting, and silage storage costs are then added. The resulting number is divided by 19.4 tons of silage per acre to give opportunity cost of the silage per ton. To account for five percent storage losses, this number is divided by 0.95. Silage prices averaged when cattle fed from two silage crops.

Each livestock budget has two sensitivity tables. The first shows the maximum that can be paid for a feeder and earn a desired profit (\$20/head for cattle and \$10 per head for hogs). After selecting a slaughter price and a corn price, the number at the intersection is the maximum that can be paid for the feeder and earn the desired return.

The other sensitivity table shows the breakeven slaughter price needed to cover all costs except the desired return. After selecting a feeder price and a corn price, the number at the intersection is the slaughter price needed to cover all costs.