

NC STATE UNIVERSITY

BEEF FINISHING: Estimated revenue, operating expenses, prorated ownership expenses and breakeven values for 80 head of 800 lb feeder steers finished on a high energy ration, on feed 160 days with a daily gain of 2.5 lb.

Budget 21-6
Jul-08

Category	Description	Unit	Price	Quantity	Value	Your Farm
OPERATING INPUTS						
Feeder Cattle, steers	80 head at 800 lbs.	Cwt.	\$103.00	640.0	\$65,920	_____
Feeder Cattle, heifers		Cwt.	\$0.00	0.0	\$0	_____
Pasture ^a		Acre	\$0.00	0.0	\$0	_____
Concentrate/supplement	20 lbs./hd/day	Ton	\$275.00	125.4	\$34,496	_____
Concentrate/supplement		Ton	\$0.00	0.0	\$0	_____
Implant, deworm, fly control		Hd.	\$10.00	78.4	\$784	_____
Facilities Repair	% of initial investment	%	1.0%	43,800	\$219	_____
Equipment operating ^b	From Table 2				\$1,185	_____
Sales Com. & transport		Hd.	\$25.00	78.4	\$1,960	_____
Annual operating capital ^c	Interest rate, annual	%	7.50%	84,262	\$2,770	_____
TOTAL OPERATING COSTS					\$107,335	_____
PRORATED FIXED COSTS^d						
Facilities, From Table 1					\$2,165	_____
Machinery & equipment, From Table 1					\$1,917	_____
Pasture establishment, From Table 1 ^a		Acre	\$0.00	0	\$0	_____
TOTAL OWNERSHIP COSTS					\$4,082	_____
LABOR COSTS						
Machinery operator labor	From Table 2				\$658	_____
Livestock labor	Work, check cattle, etc.	\$/hr.	\$9.00	20	\$180	_____
TOTAL LABOR COST					\$838	_____
TOTAL COST					\$112,254	_____
GROSS REVENUE^d						
Fed Cattle, Steers	78.4 head at 1,176 lb ^e	Cwt.	\$110.00	922.0	\$101,418	_____
Fed Cattle, Heifers		Cwt.	\$0.00	0.0	\$0	_____
TOTAL REVENUE					\$101,418	_____
RETURNS OVER OPERATING EXPENSES					-\$5,916	_____
RETURNS TO LAND, OVERHEAD, LABOR, AND MANAGEMENT					-\$9,998	_____
RETURNS TO LAND, OVERHEAD AND MANAGEMENT					-\$10,836	_____
COST SUMMARY						
Average sales price required to recover operating costs, \$/cwt. based on pay weight					\$116.42	_____
Average sales price required to recover total cost, \$/cwt. based on pay weight					\$121.75	_____
Cost per pound of gain, \$/cwt. based on pay weight					\$164.32	_____

^a Feeding on pasture may substitute for a covered feeding facility. Use NCSU forage budgets to develop costs.

^b Fuel, lube, repairs, etc.

^c Interest calculated on full cattle purchase cost and 1/2 of other costs except sales expense.

^d The prorated share of the annual cost of the facilities is applied to each batch of cattle finished.

^e Cattle prices vary and are affected by the cattle cycle, time of year, weight, frame, fleshiness, breed, and market.

^e 2% death loss. Sale weight is 1200 lb. less 2% shrink = 1,176 lbs/head.

BEEF FINISHING

Table 1. Initial investment in specialized equipment, annual ownership expenses and ownership expenses per batch of feeder cattle finished.

NUMBER OF BATCHES OF CATTLE FINISHED PER YEAR = 2.0

Category	Life	Initial Cost	Salvage Value	Depreciation ^a	Interest ^b	Tax & Ins. ^c	Annual Total	Share to Enterprise	Share to Enterprise	Cost per Batch
	Years	\$	\$	\$	\$	\$	\$	%	\$	\$
Interest and tax rates==>					7.5%	1.4%				
Facilities:										
Covered Facility	30	36,000	3,200	1,093	1,470	504	3,067	100%	3,067	1,534
Feed Bunks ^d	3	1,800	120	560	72	25	657	100%	657	329
Corral & Chute	20	6,000	300	285	236	84	605	100%	605	303
Other facilities	10	0	0	0	0	0	0	100%	0	0
Feeding cattle:										
Tractor	15	20,500	5,330	1,011	969	287	2,267	100%	2,267	1,133
+ Feeding Equipment	15	12,000	3,000	600	563	168	1,331	100%	1,331	665
Other cattle operations										
Tractor/ATV/Pickup	10	17,400	4,350	1,305	816	244	2,364	10%	236	118
+ Other equipment	10	0	0	0	0	0	0	0%	0	0
TOTAL										4,082

^a Depreciation = (Initial cost - Salvage value) / years of life

^b Interest on average value of investment = ((Initial cost + Salvage value) / 2) X interest rate specified

^c Property taxes and insurance on facilities and equipment = Initial cost X specified property tax plus insurance rate

^d 12 bunks @ \$150.00 each

Table 2. Operating expense for machinery and equipment per batch of cattle finished

Operation and Item	Horse Power	Repairs & Maint. ^a	Repairs & Maint.	Share to Batch	Est. Fuel Use	Fuel Cost	Fuel & Lube ^b	Hours of Use/Batch	Total Op. Cost/Batch	Labor Cost ^c	Total Expense
		%	\$/Year	\$	Gals/hr	\$	\$/Hour	Hours	\$/Batch	\$/Batch	\$/Batch
Fuel cost per gallon & Labor cost per hour ==>											
						4.00				9.40	
Tractor	55	2%	410	205.00	2.42	9.68	11.13	60.0	872.92	564.00	1,437
+ Feeding Equipment		3%	360	180.00	0	0.00	0.00	60.0	180.00		180
Tractor/ATV/Pickup	0	2%	348	17.40	2.5	10.00	11.50	10.0	132.40	94.00	226
+ Other equipment	0	2%	0	0.00	0	0.00	0.00	10.0	0.00		0
TOTAL									1,185	658	1,843

^a Repairs and maintenance costs are calculated as a % of the initial cost in Table 1. Percentages are higher for equipment that is bought used.

^b Fuel cost is based on engine horsepower plus lube costs estimated as 15% of the fuel cost.

^c Labor cost or charge includes an additional 15% allowance for inspection, equipment adjustments, cleaning up, travel, etc. Include labor that does not require equipment as "Livestock labor" directly in the budget, e.g, working cattle, checking cattle.

Table 3. SENSITIVITY ANALYSIS

This table shows the returns to land, overhead and management (a measure of profit) under various assumptions about costs and returns. Specifically, the cost and returns shown in the enterprise budget on the first page are believed to be fairly representative of conditions in North Carolina. However, there is a wide variation in farm performance from one farm to another and costs and cattle prices can change rapidly from year-to-year. The table shows the effects of returns that are 10 percent higher and lower than for the base budget. Similarly, the table also shows the effects of total costs that are 10 percent higher and lower than in the base budget.

RETURNS TO LAND, OVERHEAD AND MANAGEMENT:

		REVENUE		
		-10% Lower	Base Budget	10% Higher
COST	-10%	-\$9,753	\$389	\$10,531
	Base	-\$20,978	-\$10,836	-\$694
	10%	-\$32,203	-\$22,062	-\$11,920

