

BEEF COW-CALF: Estimated revenue, operating expenses, annual ownership expenses, and returns to land, overhead and management for 50 cows on 100 acres of a conventionally fertilized cool season perennial grass/ladino clover pasture, rotationally grazed.

Budget 20-1
Dec 2013

Category	Description	Unit	Price	Quantity	Value	Comments
OPERATING INPUTS						
Permanent pasture ^a	2.0 acre/cow	Acre	\$116.46	100.0	\$11,646	
Permanent pasture	Perennial crop	Acre	\$0.00	0.0	\$0	
Temporary pasture	Annual crops	Acre	\$0.00	0.0	\$0	
Temporary pasture	Annual crops	Acre	\$0.00	0.0	\$0	
Supplemental feed	Hay, mixed feed, etc.	Hd.	\$250.00	50.0	\$12,500	
Minerals	.15 lb/hd/day	Lb.	\$0.30	2,738	\$821	
Vaccines, fly control, etc.	Calves	Hd.	\$10.00	44.0	\$440	
Implant	1 time/head	Hd.	\$1.00	22.0	\$22	
Breeding	50 head	Hd.	\$60.00	50.0	\$3,000	
Replacements	6 head/yr.	Hd.	\$1,300.00	6.0	\$7,800	
Vet & Medical	50 head	Hd.	\$15.00	50.0	\$750	
Fence & Water Repair	% of initial investment	%	8.0%	48,770	\$3,902	
Facilities Repair	% of initial investment	%	1.0%	8,000	\$80	
Equipment operating	From Table 2				\$1,064	
Sales Com. & transport		Hd.	\$27.50	50.0	\$1,375	
Annual operating capital ^b	Interest rate, annual	\$	5.5%	15,189	\$835	
TOTAL OPERATING COSTS					\$44,235	
OWNERSHIP COSTS						
Fencing, facilities, cows					\$9,299	
Machine & equipment					\$1,553	
Pasture establishment	Depreciation and interest				\$3,604	
TOTAL OWNERSHIP COSTS					\$14,457	
LABOR COSTS						
Machinery operator labor, From Table 2					\$1,080	
Livestock labor	Work, check cattle	\$/hr.	\$12.00	175	\$2,100	
TOTAL LABOR COST					\$3,180	
TOTAL COST					\$61,872	
GROSS REVENUE^c						
Steers	22 head @ 575 lb.	Cwt.	\$152.00	126.50	\$19,228	
Heifers	22 head @ 525 lb.	Cwt.	\$144.00	115.50	\$16,632	
Cull cows	6 head @ 1,200 lb.	Cwt.	\$80.00	72.00	\$5,760	
TOTAL REVENUE					\$41,620	
RETURNS OVER OPERATING EXPENSES					(\$2,615.01)	
RETURNS TO LAND, OVERHEAD, LABOR, & MANAGEMENT					(\$17,071.87)	
RETURNS TO LAND, OVERHEAD & MANAGEMENT					(\$20,251.87)	
RETURNS TO LAND, OVERHEAD & MANAGEMENT PER COW					(\$405.04)	
RETURNS TO LAND, OVERHEAD & MANAGEMENT PER ACRE					(\$202.52)	

^a Annual operating costs are taken from Budget 87-2. Assumes annual stocking rate of 2 acres/cow.

^b Interest calculated on one-half of operating input costs, except sales expense.

^c Revenues assume a weaned calf crop of 88% of cows exposed. Weight is sale weight after shrink.

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

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Table 1. Investment in specialized facilities & equipment and pro-rated share of annual ownership expenses

Category	Life	Initial Cost	Salvage Value	Depreciation ^a	Interest ^b	Tax & Ins. ^c	Total DITI	Share to Enterprise ^d	Share to Enterprise
	Years	\$	\$	\$	\$	\$	\$	%	\$
Interest and Tax Rates==>					5.50%	1.40%			
Facilities:									
Perimeter Fence	25	21,400	0	856	589	300	1,744	100.0%	1,744
Perm. Internal Fence	25	14,935	0	597	411	209	1,217	100.0%	1,217
Temp. electric fence	3	250	0	83	7	4	94	100.0%	94
Water Supply	10	12,185	0	1,219	335	171	1,724	100.0%	1,724
Corral & Chute	20	8,000	300	385	228	112	725	100.0%	725
Other facilities	1	0	0	0	0	0	0	0.0%	0
Hay feeding:									
Tractor	15	23,150	6,019	1,142	802	324	2,268	25.0%	567
+ bale spear		500	130	25	17	7	49	100.0%	49
Pasture & livestock management:									
Tractor	15	23,150	6,019	1,142	802	324	2,268	10.0%	227
+ bushhog	15	4,225	1,099	208	146	59	414	100.0%	414
Pickup or 4-wheeler	10	12,000	3,000	900	413	168	1,481	20.0%	296
Other self propelled	1	0	0	0	0	0	0	0.0%	0
Other equipment	1	0	0	0	0	0	0	0.0%	0
Pasture establishment ^e	15	33,323	0	2,222	916	467	3,604	100.0%	3,604
Beef Cows ^f	10	55,000	55,000	--	3,025	770	3,795	100.0%	3,795
TOTAL									14,457

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

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

^c Property taxes and insurance on facilities and equipment = Initial investment X tax + insurance rates specified.

^d Assets may be shared among enterprises. Initial investment costs may be eligible for cost share funding.

^e Pasture establishment costs are from Budget 87-1, N.C. Enterprise Budget Guidelines

^f Beef cows are not depreciated. Cost of maintaining the herd are captured through replacement purchases and cull cow sales.

Table 2. Operating expense for machinery and equipment

Operation and Item	Horse Power	Repairs & Maint. ^a	Repairs & Maint.	Share to Enterprise	Est. Fuel Use	Fuel Cost	Fuel & Lube ^b	Hours of Use/Year	Total Op. Cost/Year	Labor Cost ^c	Total Expense
		%	\$/Year	\$	Gals/hr	\$	\$/Hour	Hours	\$	\$	\$
Fuel cost per gallon & Labor cost per hour ==>>>						3.75				12.00	
Tractor	55	2%	463.00	115.75	2.42	9.08	10.44	30.0	428.84	360.00	789
+ bale spear		1%	5.00	5.00	0	0.00	0.00	30.0	5.00		5
Tractor	55	2%	463.00	46.30	2.42	9.08	10.44	10.0	150.66	120.00	271
+ bushhog		1%	0.00	0.00	0	0.00	0.00	10.0	0.00		0
Pickup or 4-wheeler		2%	240.00	48.00	2.0	7.50	8.63	50.0	479.25	600.00	1,079
Other self propelled		1%	0.00	0.00	0	0.00	0.00	0.0	0.00	0.00	0
Other equipment		1%	0.00	0.00	0	0.00	0.00	0.0	0.00		0
TOTAL									1,064	1,080	2,144

^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 the reported 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, moving fence, 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 fairly representative believed to be of conditions in North Carolina. However, there is a wide variation in farm 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.

RETURNS TO LAND, OVERHEAD AND MANAGEMENT:

		REVENUE		
		-10% Lower	Base Budget	10% Higher
	-10%	-\$18,227	-\$14,065	-\$9,903
COST	Base	-\$24,414	-\$20,252	-\$16,090
	+ 10%	-\$30,601	-\$26,439	-\$22,277