

2015 Cow-Calf Budget

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The cow-calf budget was developed to assist Tennessee cattle producers in estimating the cost of production and net return to land and management. This budget should be considered a template or guide to estimating expenses and revenues, and it should not be considered representative of all circumstances. Users of this budget are encouraged to enter information into the budget that reflects their individual situation and production practices. Using information most closely related to a particular operation will improve the decision making process.

Disclaimer: Significant variability in inputs, prices, and production practices exist across operations and from region to region. The information contained in this budget relies on estimates and assumptions specific to Tennessee. This budget should not be construed as a reflection of all circumstances across the state as regional variability does exist. To improve the value of this budget, users are encouraged to use inputs, prices, production practices and management that are employed on their specific operation.

Estimated Returns and Expenses for Beef Cow-Calf Operation in Tennessee

Item	Unit	Quantity	Price	\$/Cow	\$/Herd
Revenue					
Cull Cows	lb	_____	\$_____	\$_____	\$_____
Heifer Calves	lb	_____	\$_____	\$_____	\$_____
Steer Calves	lb	_____	\$_____	\$_____	\$_____
Total Revenue				\$_____	\$_____
Variable Expenses					
Pasture Production	acre	_____	\$_____	\$_____	\$_____
Hay Production	acre	_____	\$_____	\$_____	\$_____
Purchased Hay per Cow	ton	_____	\$_____	\$_____	\$_____
Bull (Pasture and Hay) ¹	\$	_____	\$_____	\$_____	\$_____
Supplemental Feed	head	_____	\$_____	\$_____	\$_____
Salt and Mineral	lb	_____	\$_____	\$_____	\$_____
Vet & Med	head	_____	\$_____	\$_____	\$_____
Reproduction (Artificial Insemination) ²	head	_____	\$_____	\$_____	\$_____
Other Expenses	head	_____	\$_____	\$_____	\$_____
Labor	hours	_____	\$_____	\$_____	\$_____
Production Expenses				\$_____	\$_____
Interest	\$	\$_____	%_____	\$_____	\$_____
Marketing	head	_____	\$_____	\$_____	\$_____
Land Rent	acre	_____	\$_____	\$_____	\$_____
Total Variable Expenses				\$_____	\$_____
Returns to Variable Expenses				\$_____	\$_____
Fixed Expenses					
Livestock Facilities & Equipment	head	_____	\$_____	\$_____	\$_____
Pasture and Hay Machinery/Equipment	head	_____	\$_____	\$_____	\$_____
Purchased Breeding Stock	head	_____	\$_____	\$_____	\$_____
Purchased Heifers, (not bred)	head	_____	\$_____	\$_____	\$_____
Miscellaneous Overhead ³	head	_____	\$_____	\$_____	\$_____
Total Fixed Expenses				\$_____	\$_____
Total Expenses				\$_____	\$_____
Net Return to Land and Management				\$_____	\$_____

2015 Estimated Returns and Expenses for Beef Cow-Calf Operation in Tennessee

Item	Unit	Quantity	Price	\$/Cow	Herd Total \$
Revenue¹					
Cull Cows	lb	1200	\$ 1.05	\$ 201.60	\$ 10,080.00
Heifer Calves	lb	520	\$ 2.35	\$ 317.72	\$ 15,886.00
Steer Calves	lb	550	\$ 2.50	\$ 605.00	\$ 30,250.00
Total Revenue				\$ 1,124.32	\$ 56,216.00
Variable Expenses					
Pasture Production	acre	2.00	\$ 128.14	\$ 256.28	\$ 12,814.20
Hay Production	acre	0.90	\$ 197.58	\$ 177.82	\$ 8,891.19
Purchased Hay per Cow	ton	0.00	\$ 80.00	\$ -	\$ -
Bull (Pasture and Hay) ²	\$	1.7	\$ 434.11	\$ 29.52	\$ 1,475.97
Supplemental Feed	head	1	\$ 27.68	\$ 27.68	\$ 1,383.75
Salt and Mineral	lb	91	\$ 0.35	\$ 31.94	\$ 1,596.88
Vet & Med	head	1	\$ 29.72	\$ 29.72	\$ 1,486.00
Reproduction (Artificial Insemination) ³	head	0	\$ 51.50	\$ -	\$ -
Other Expenses	head	1	\$ 1.00	\$ 1.00	\$ 50.00
Labor	hours	8	\$ 10.00	\$ 80.00	\$ 4,000.00
Production Expenses				\$ 633.96	\$ 31,697.98
Interest	\$	\$ 633.96	6%	\$ 19.02	\$ 950.94
Marketing	head	0.86	\$ 39.68	\$ 34.13	\$ 1,706.40
Land Rent	acre	0.00	\$ -	\$ -	\$ -
Total Variable Expenses				\$ 687.11	\$ 34,355.32
Returns to Variable Expenses				\$ 437.21	\$ 21,860.68
Fixed Expenses					
Livestock Facilities & Equipment	head	1	\$ 71.09	\$ 71.09	\$ 3,554.66
Pasture and Hay Machinery/Equipment	head	1	\$ 223.16	\$ 223.16	\$ 11,158.13
Purchased Breeding Stock	head	1	\$ 29.91	\$ 29.91	\$ 1,495.50
Purchased Heifers, (not bred)	head	0.00	\$ 1,800.00	\$ -	\$ -
Miscellaneous Overhead ⁴	head	1	\$ 235.29	\$ 23.53	\$ 1,176.45
Total Fixed Expenses				\$ 347.69	\$ 17,384.73
Total Expenses				\$ 1,034.80	\$ 51,740.05
Net Return to Land and Management				\$ 89.52	\$ 4,475.95

Footnotes:

¹Cull cow revenue (\$/cow) = (weight X price X number of cows sold) / total number of cows
 $\$201.60 = (1200 \text{ lbs} \times \$1.05/\text{lb} \times 8 \text{ cows sold}) / 50 \text{ cows}$

The same method is used to calculate heifer and steer calf revenue on a \$/cow basis.

²Accounts for bull pasture and hay costs on a yearly basis. Assumes costs are 1.7 times higher than a cow.

³If artificial insemination is utilized, then users of this budget are encouraged to evaluate the number of breeding bulls.

⁴Miscellaneous overhead is assumed to be 10% of total overhead costs to account for unforeseen costs associated with overhead.

Cow-Calf Budget Assumptions

Herd Data:

- 50 cow herd with 2 breeding herd bulls
- 90% calf crop with 2% death loss for calves (22 steers & 12 heifers sold)
- 16% cull cow rate with 2% death loss for cows (8 cows sold)
- 100% of replacement heifers are retained from the herd

Supplemental Feed:

- Replacement heifers: 6 lbs/day commercial feed for 150 days (900 pounds)
- Herd bulls: 10 lbs/day commercial feed for 60 days (600 pounds)
- Calves: 2 lbs/day commercial feed for 30 days (60 pounds)

Pasture/Hay:

- Pasture
 - Nitrogen: 60 lbs/ac at \$0.54/lb
 - P₂O₅: 30 lbs/ac at \$0.43/lb
 - K₂O: 30 lbs/ac at \$0.40/lb
 - One application of broadleaf herbicide
 - Stocking rate: 2 ac/cow-calf pair
- Hay
 - Nitrogen: 100 lbs/ac at \$0.54/lb
 - P₂O₅: 30 lbs/ac at \$0.43/lb
 - K₂O: 30 lbs/ac at \$0.40/lb
 - One application of broadleaf herbicide
 - Hay yield: 2.5 tons/ac
 - Feeding: 30 lbs/day of hay for 150 days (2.25 tons/yr)

Veterinary/Medicine:

- Cows: respiratory vaccine (1), clostridial bacterin (1), deworm (1), fly tags (2)
- Replacement heifers: respiratory vaccine (2), clostridial bacterin (2), deworm (1), fly tags (1)
- Herd bulls: respiratory vaccine (1), clostridial bacterin (1), deworm (1), fly tags (2), breeding soundness exam
- Calves: respiratory vaccine (2), clostridial bacterin (2), deworm (1), fly tags (1), implant (1)

Marketing:

- Commission: 2.5% on total sale
- Hauling: \$3/loaded mile for 30 miles

Buildings/Equipment:

- Buildings: 1,500 ft² hay barn, 800 ft² equipment shed, corral, chute, head gate, fencing
- Equipment: 60 hp tractor, disc mower, hay rake, hay baler, hay wagon, rotary mower, tractor mounted sprayer, truck