

# Department of Agricultural and Resource Economics

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## 2021 STOCKER/BACKGROUNDING BUDGET

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The stocker/backgrounding 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 spreadsheet 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 tool, users are encouraged to use inputs, prices, production practices and management that are employed on their specific operation.

## Estimated Returns and Expenses for Stocker/Backgrounding Operation in Tennessee

Item	Unit	Quantity	Price	\$/Head	\$/Group Total	Your Farm
<b>Revenue</b>						
Feeder Cattle	lb	_____	\$ _____	\$ _____	\$ _____	_____
<b>Total Revenue</b>				\$ _____	\$ _____	_____
 <b>Variable Expenses</b>						
Calf Purchase	lb	_____	\$ _____	\$ _____	\$ _____	_____
Pasture Production	acre	_____	\$ _____	\$ _____	\$ _____	_____
Hay Production	acre	_____	\$ _____	\$ _____	\$ _____	_____
Purchased Hay	ton	_____	\$ _____	\$ _____	\$ _____	_____
Supplemental Feed	lb	_____	\$ _____	\$ _____	\$ _____	_____
Salt and Mineral	lb	_____	\$ _____	\$ _____	\$ _____	_____
Vet & Med	head	_____	\$ _____	\$ _____	\$ _____	_____
Other Expenses	head	_____	\$ _____	\$ _____	\$ _____	_____
Labor	hours	_____	\$ _____	\$ _____	\$ _____	_____
<b>Production Expenses</b>				\$ _____	\$ _____	_____
Interest on Calf Purchase	\$	\$ _____ % _____	\$ _____	\$ _____	\$ _____	_____
Interest on Other Variable Expenses	\$	\$ _____ % _____	\$ _____	\$ _____	\$ _____	_____
Marketing	head	_____	\$ _____	\$ _____	\$ _____	_____
Land Rent	acre	_____	\$ _____	\$ _____	\$ _____	_____
<b>Total Variable Expenses</b>				\$ _____	\$ _____	_____
<b>Returns to Variable Expenses</b>				\$ _____	\$ _____	_____
 <b>Fixed Expenses</b>						
Livestock Facilities & Equipment	head	_____	\$ _____	\$ _____	\$ _____	_____
Pasture and Hay Machinery/Equipment	head	_____	\$ _____	\$ _____	\$ _____	_____
Miscellaneous Overhead	head	_____	\$ _____	\$ _____	\$ _____	_____
<b>Total Fixed Expenses</b>				\$ _____	\$ _____	_____
<b>Total Expenses</b>				\$ _____	\$ _____	_____
<b>Net Return to Land and Management</b>				\$ _____	\$ _____	_____

## Estimated Returns and Expenses for Stocker/Backgrounding Operation in Tennessee

Item	Unit	Quantity	Price	\$/Head	\$/Group Total	Your Farm
<b>Revenue</b>						
Feeder Cattle <sup>1</sup>	lb	800	\$ 1.40	\$ 1,064.20	\$ 65,980.50	_____
<b>Total Revenue</b>				<b>\$ 1,064.20</b>	<b>\$ 65,980.50</b>	_____
<b>Variable Expenses</b>						
Calf Purchase	lb	504	\$ 1.50	\$ 756.98	\$ 46,933.00	_____
Pasture Production	acre	0.67	\$ 116.28	\$ 77.52	\$ 4,806.32	_____
Hay Production	acre	0.30	\$ 175.12	\$ 52.54	\$ 3,257.27	_____
Purchased Hay	ton		\$ 80.00	\$ -	\$ -	_____
Supplemental Feed	lb	601.35	\$ 0.11	\$ 64.65	\$ 4,008.03	_____
Salt & Mineral	lb	30	\$ 0.35	\$ 10.50	\$ 651.00	_____
Vet & Med	head	1	\$ 15.50	\$ 15.50	\$ 961.00	_____
Other Expenses	head	1	\$ 1.00	\$ 1.00	\$ 62.00	_____
Labor	hours	4	\$ 10.00	\$ 40.00	\$ 2,480.00	_____
<b>Production Expenses</b>				<b>\$ 1,018.69</b>	<b>\$ 63,158.62</b>	_____
Interest on Calf Purchase	\$	\$ 756.98	6%	\$ 18.71	\$ 1,159.87	_____
Interest on Other Variable Expenses	\$	\$ 261.70	6%	\$ 6.47	\$ 400.99	_____
Marketing	head	1	\$ 24.66	\$ 23.43	\$ 1,452.50	_____
Land Rent	acre	0.00	\$ -	\$ -	\$ -	_____
<b>Total Variable Expenses</b>				<b>\$ 1,067.29</b>	<b>\$ 66,171.98</b>	_____
<b>Returns to Variable Expenses</b>				<b>\$ (3.09)</b>	<b>\$ (191.48)</b>	_____
<b>Fixed Expenses</b>						
Livestock Facilities & Equipment	head	1	\$ 11.67	\$ 11.67	\$ 723.75	_____
Pasture & Hay Machinery/Equipment	head	1	\$ 48.33	\$ 48.33	\$ 2,996.33	_____
Miscellaneous Overhead <sup>1</sup>	head	1	\$ 47.65	\$ 4.77	\$ 295.44	_____
<b>Total Fixed Expenses</b>				<b>\$ 64.77</b>	<b>\$ 4,015.51</b>	_____
<b>Total Expenses</b>				<b>\$ 1,132.06</b>	<b>\$ 70,187.49</b>	_____
<b>Net Return to Management</b>				<b>\$ (67.85)</b>	<b>\$ (4,206.99)</b>	_____

**Footnotes:**

<sup>1</sup>Feeder cattle revenue and marketing accounts for death loss. Revenue = 800 lb x \$1.40/lb x (1 - death loss %). Marketing cost is calculated the same way.

<sup>2</sup>Miscellaneous overhead is assumed to be 10 percent of total overhead costs to account for unforeseen costs associated with overhead.

## Stocker/Backgrounding Budget Assumptions

Group Data (assumptions are averages over groups of cattle purchased in different weeks but marketed at the same time):

- Ownership: 150 days
- Gain: 2 lbs/day
- 5 percent death loss

Supplemental Feed (assumptions are averages over groups of cattle purchased in different weeks but marketed at the same time):

- 4 lbs/day commercial feed for 150 days (600 pounds)
- Pasture/Hay:
  - Pasture
    - Nitrogen: 60 lbs/ac at \$0.40/lb
    - P<sub>2</sub>O<sub>5</sub>: 30 lbs/ac at \$0.30/lb
    - K<sub>2</sub>O: 30 lbs/ac at \$0.35/lb
    - One application of broadleaf herbicide
    - Stocking rate: 1.5 hd/ac
  - Hay
    - Nitrogen: 100 lbs/ac at \$0.40/lb
    - P<sub>2</sub>O<sub>5</sub>: 30 lbs/ac at \$0.30/lb
    - K<sub>2</sub>O: 30 lbs/ac at \$0.35/lb
    - One application of broadleaf herbicide
    - Hay yield: 2.5 tons/ac

Veterinary/Medicine:

- Respiratory vaccine (2), clostridial bacterin (2), deworm (1), fly tags (1), implant (1)

Marketing:

- Commission: \$16.00/head
- Insurance: 0.25 percent on total sale
- Hauling: \$3/loaded mile for 30 miles

Buildings/Equipment:

- Buildings: 1,500-ft<sup>2</sup> hay barn, 800-ft<sup>2</sup> 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



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