

# Department of Agricultural and Resource Economics

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## 2025 Tennessee Pasture Budgets

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*David Bilderback, Extension Specialist*

*Becky Bowling, Extension Specialist*

*Rachel Painter, Extension Specialist*

*Bruno Pedreira, Associate Professor, Extension Specialist,*

*Director of the UT Beef and Forage Center, Department of Plant Sciences*

The 2025 Tennessee Pasture Budgets were developed to assist producers and agricultural decision-makers in evaluating the profitability of various forage options. These budgets incorporate common production practices, management strategies, custom machinery hire rates and inputs typically used in forage production across Tennessee. The budgets are based on custom machinery rates, which include labor, operating, maintenance and ownership costs.

Given the diverse nature of pasture production in the state, it is impossible to account for every possible scenario and circumstance. Therefore, this guide is intended to support decision-makers in planning efforts. To create a custom budget tailored to a specific field or operation, individuals are encouraged to use the University of Tennessee Extension's Excel-based spreadsheet tool available at [arec.tennessee.edu/extension/budgets](http://arec.tennessee.edu/extension/budgets). This spreadsheet follows the same format as the budgets provided in this document but allows users to customize yields, input quantities and prices, machinery rates and add any additional costs specific to individual fields or pasture production. This flexibility enables users to account for regional and site-specific production methods and input choices.



**Figure 1.** Tennessee forage producers can use the forage budget calculator as a valuable risk management tool.

This publication, along with the Excel spreadsheet, provides planning budgets for various forage types. Fertilizer recommendations in the forage budgets are generally based on medium soil test results. Producers are encouraged to test soils to maximize the return on fertilizer investments. Fertilizer applications can then be adjusted to align with soil test recommendations as forage plans are developed. To connect with a local Extension agent for personalized consultation and assistance, visit [utextension.tennessee.edu](http://utextension.tennessee.edu).

## **Disclaimer**

Significant variability exists in inputs, prices and production methods across forage production. The information in this document is based on estimates and assumptions specific to Tennessee forage production and may not reflect all circumstances statewide. Regional differences are expected, and users are encouraged to incorporate farm-specific inputs, prices and processes into budget calculations for greater accuracy.

## **Keys to Maximizing Forage Efficiency in Pasture-Based Systems**

Tennessee is home to approximately 3.5 million acres of pastureland (USDA-NASS), supporting more than 1.6 million cattle, primarily managed in cow/calf operations within forage-based systems. These systems play a vital role in both the state and national economies. As the demand for increased productivity grows alongside the need to minimize environmental impact, optimizing efficiency in forage-based systems has become a priority. Achieving this goal requires producers to implement key management practices that integrate soil, plant and animal health.

## **Soil Management**

Soil serves as the foundation of a productive forage system. While nutrients recycled through animal manure and urine contribute to soil fertility, routine soil testing every two to three years is essential. Soil testing eliminates uncertainty by providing precise data on nutrient deficiencies, allowing producers to make informed fertilization decisions. This practice ensures optimal forage growth and sustained pasture productivity.

## **Plant Health**

When soil nutrients are adequately supplied, weather becomes the primary factor influencing plant health. Recent years have seen increased weather variability with drier-than-average fall months and unseasonably warm winters extending into December. In these unpredictable weather conditions, maintaining healthy pastures through soil management is crucial to building resilience in forage systems. Successful cattle production begins with effective forage management.

## **Animal Management**

In pasture-based systems, stocking rate management is critical to balancing forage availability with livestock nutritional needs. Overgrazing can deplete forage reserves and degrade pasture health while underutilization leads to waste. Producers must carefully align forage production with dietary requirements of the herd to sustain herd health and operational efficiency. Determining the appropriate stocking rate can be a complex yet essential task for maintaining long-term productivity.

By implementing strategic soil, plant, and animal management practices, Tennessee producers can enhance the efficiency and sustainability of forage-based systems. These efforts not only support the long-term success of individual operations but also strengthen the state's agricultural industry as a whole.

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**Cool Season Grass, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Prorated Establishment Costs	Fescue	acre	0.10	\$ 255.83	\$ 25.58
Fertilizer <sup>3</sup>	N	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	30.00	\$ 0.41	\$ 12.26
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.33	\$ 43.63	\$ 14.40
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre	1.00	\$ 12.30	\$ 12.30
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					\$ 179.30
<b>Custom Machinery Cost</b>					
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					\$ 19.50
Interest on Operating Capital	6 months	acre	\$ 179.30	8.0%	\$ 7.17
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					\$ 205.98

**Cool Season Grass, Establishment  
Estimated Expenses per Acre**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Fescue	lb	17.50	\$ 1.33	\$ 23.28
Fertilizer	N	lb	30.00	\$ 0.60	\$ 17.96
	P2O5	lb	60.00	\$ 0.61	\$ 36.81
	K2O	lb	60.00	\$ 0.41	\$ 24.53
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application	Custom Application	ton	2.00	\$ 43.63	\$ 87.26
<b>Total Variable Expenses</b>					\$ 218.21
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
<b>Total Custom Machinery Cost</b>					\$ 28.89
Interest on Operating Capital	6 months	acre	\$ 218.21	8.0%	\$ 8.73
<b>Total Budgeted Expenses</b>					\$ 255.83

<b>Establishment Prorated Over Years<sup>7</sup></b>
10

**Cool Season Grass, Pasture**  
**Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Prorated Establishment Costs	Orchardgrass	acre	0.10	\$ 270.88	\$ 27.09
Fertilizer <sup>3</sup>	N	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	30.00	\$ 0.41	\$ 12.26
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.33	\$ 43.63	\$ 14.40
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre	1.00	\$ 12.30	\$ 12.30
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					\$ 180.81
<b>Custom Machinery Cost</b>					
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					\$ 19.50
Interest on Operating Capital	6 months	acre	\$ 180.81	8.0%	\$ 7.23
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					\$ 207.54

**Cool Season Grass, Establishment**  
**Estimated Expenses per Acre**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Orchardgrass	lb	12.50	\$ 3.02	\$ 37.75
Fertilizer	N	lb	30.00	\$ 0.60	\$ 17.96
	P2O5	lb	60.00	\$ 0.61	\$ 36.81
	K2O	lb	60.00	\$ 0.41	\$ 24.53
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application	Custom Application	ton	2.00	\$ 43.63	\$ 87.26
<b>Total Variable Expenses</b>					\$ 232.68
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
<b>Total Custom Machinery Cost</b>					\$ 28.89
Interest on Operating Capital	6 months	acre	\$ 232.68	8.0%	\$ 9.31
<b>Total Budgeted Expenses</b>					\$ 270.88

<b>Establishment Prorated Over Years<sup>7</sup></b>
10

**Cool Season Grass/Clover, Pasture**  
**Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Prorated Establishment Costs	Fescue/Clover	acre	0.10	\$ 294.18	\$ 29.42
Fertilizer <sup>3</sup>	N	lb	60.00	\$ 0.60	\$ 35.92
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	30.00	\$ 0.41	\$ 12.26
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.33	\$ 43.63	\$ 14.40
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre	1.00	\$ 12.30	\$ 12.30
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					\$ 147.22
<b>Custom Machinery Cost</b>					
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					\$ 19.50
Interest on Operating Capital	6 months	acre	\$ 147.22	8.0%	\$ 5.89
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					\$ 172.61

**Cool Season Grass/Clover Pasture, Establishment**  
**Estimated Expenses per Acre**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Fescue	lb	17.50	\$ 1.33	\$ 23.28
	Red Clover	lb	4.00	\$ 3.33	\$ 13.32
	White Clover	lb	2.00	\$ 4.57	\$ 9.14
	N	lb	30.00	\$ 0.60	\$ 17.96
Fertilizer	P2O5	lb	60.00	\$ 0.61	\$ 36.81
	K2O	lb	60.00	\$ 0.41	\$ 24.53
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application	Custom Application	ton	2.00	\$ 43.63	\$ 87.26
<b>Total Variable Expenses</b>					\$ 240.67
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Broadcast Seeding		acre	1	\$ 15.00	\$ 15.00
<b>Total Custom Machinery Cost</b>					\$ 43.89
Interest on Operating Capital	6 months	acre	\$ 240.67	8.0%	\$ 9.63
<b>Total Budgeted Expenses</b>					\$ 294.18

**Establishment  
Prorated Over  
Years<sup>7</sup>**  
10

**Cool Season Grass/Clover, Pasture**  
**Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Prorated Establishment Costs	Orchardgrass/Clover	acre	0.10	\$ 309.24	\$ 30.92
Fertilizer <sup>3</sup>	N	lb	60.00	\$ 0.60	\$ 35.92
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	30.00	\$ 0.41	\$ 12.26
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.33	\$ 43.63	\$ 14.40
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre	1.00	\$ 12.30	\$ 12.30
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					\$ 148.73
<b>Custom Machinery Cost</b>					
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					\$ 19.50
Interest on Operating Capital	6 months	acre	\$ 148.73	8.0%	\$ 5.95
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					\$ 174.18

**Cool Season Grass/Clover Pasture, Establishment**  
**Estimated Expenses per Acre**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Orchardgrass	lb	12.50	\$ 3.02	\$ 37.75
	Red Clover	lb	4.00	\$ 3.33	\$ 13.32
	White Clover	lb	2.00	\$ 4.57	\$ 9.14
	Fertilizer	N	lb	30.00	\$ 0.60
Fertilizer	P2O5	lb	60.00	\$ 0.61	\$ 36.81
	K2O	lb	60.00	\$ 0.41	\$ 24.53
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application	Custom Application	ton	2.00	\$ 43.63	\$ 87.26
<b>Total Variable Expenses</b>					\$ 255.14
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Broadcast Seeding		acre	1	\$ 15.00	\$ 15.00
<b>Total Custom Machinery Cost</b>					\$ 43.89
Interest on Operating Capital	6 months	acre	\$ 255.14	8.0%	\$ 10.21
<b>Total Budgeted Expenses</b>					\$ 309.24

**Establishment  
Prorated Over  
Years<sup>7</sup>**  
10

## Cool Season Grass and Cool Season Grass and Clover Assumptions

1. The budget is based on custom rates for machinery processes. Labor, operating, maintenance, and ownership costs are included in these rates.
2. The budget is based on no-till establishment.
3. Sixty pounds of nitrogen will be applied in March, with the remainder applied in the fall. If clover is included, it is assumed that 60 pounds of nitrogen will come from the clover in the spring and the rest applied in the fall.
4. Lime prorated at one ton over three years.
5. For a more accurate fertilizer and lime recommendation, take a soil sample. ([Instructions on how to take a soil sample.](#))
6. The post-emergence weed control is based on an average of three common practices. Burndown is a common practice. For weed control and/or burndown recommendations, contact the county Extension office. ([County office contact information.](#))
7. Establishment pro-rated expenses for hay are set for 10 years.



**Alfalfa, Pasture**  
Estimated Expenses per Acre<sup>1,2,3</sup>

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Prorated Establishment Costs	Alfalfa	acre	0.25	\$ 461.97	\$ 115.49
Fertilizer	N	lb	15.00	\$ 0.60	\$ 8.98
	P2O5	lb	60.00	\$ 0.61	\$ 36.81
	K2O	lb	190.00	\$ 0.41	\$ 77.67
	Boron	lb	2.00	\$ 0.99	\$ 1.98
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
	Lime & Application <sup>4,5</sup>	Custom Application	ton	0.67	\$ 43.63
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre	2.00	\$ 7.83	\$ 15.66
	Custom Application	acre	2.00	\$ 11.81	\$ 23.62
Pest Control	Pest Control Application	acre	1.00	\$ 6.51	\$ 6.51
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81
<b>Total Variable Expenses</b>					<b>\$ 340.48</b>
<b>Custom Machinery Cost</b>					
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 19.50</b>
Interest on Operating Capital	6 months	acre	\$ 340.48	8.0%	\$ 13.62
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 373.60</b>

**Alfalfa, Establishment**  
Estimated Expenses per Acre

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Alfalfa	lb	17.50	\$ 10.02	\$ 175.35
Fertilizer	N	lb	15.00	\$ 0.60	\$ 8.98
	P2O5	lb	60.00	\$ 0.61	\$ 36.81
	K2O	lb	190.00	\$ 0.41	\$ 77.67
	Boron	lb	2.00	\$ 0.99	\$ 1.98
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
	Lime & Application	Custom Application	ton	2.00	\$ 43.63
<b>Total Variable Expenses</b>					<b>\$ 416.43</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
<b>Total Custom Machinery Cost</b>					<b>\$ 28.89</b>
Interest on Operating Capital	6 months	acre	\$ 416.43	8.0%	\$ 16.66
<b>Total Budgeted Expenses</b>					<b>\$ 461.97</b>

**Establishment  
Prorated Over  
Years<sup>7</sup>**  
4

## Alfalfa Assumptions

1. The budget is based on custom rates for machinery processes. Labor, operating, maintenance, and ownership costs are included in these rates.
2. The budget is based on no-till establishment.
3. Based on Roundup Ready Alfalfa.
4. Lime prorated at two tons over three years.
5. For a more accurate fertilizer and lime recommendation, take a soil sample. ([Instructions on how to take a soil sample.](#))
6. The post-emergence weed control is based on an average of three common practices. Burndown is a common practice. For weed control and/or burndown recommendations, contact the county Extension office. ([County office contact information.](#))
7. Establishment pro-rated expenses for hay are set for four years.

**Bermudagrass, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Prorated Establishment Costs	Bermudagrass	acre	0.10	\$ 9.90	\$ 0.99
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	80.00	\$ 0.41	\$ 32.70
	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.67	\$ 43.63	\$ 29.23
Weed Control	Herbicide Application	acre	1.00	\$ 12.30	\$ 12.30
		acre	1.00	\$ 11.81	\$ 11.81
Post-Emerge <sup>6</sup>	Pest Control Application	acre	1.00	\$ 6.51	\$ 6.51
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81
<b>Total Variable Expenses</b>					\$ 227.15
<b>Custom Machinery Cost</b>					
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					\$ 19.50
Interest on Operating Capital	6 months	acre	\$ 227.15	8.0%	\$ 9.09
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					\$ 255.74

**Bermudagrass, Establishment  
Estimated Expenses per Acre**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Bermudagrass	lb	6.50	\$ 8.48	\$ 55.12
Sprigging	Bermudagrass	acre		\$ 0.00	\$ -
Fertilizer	N	lb	60.00	\$ 0.60	\$ 35.92
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71
Lime & Application	Custom Application	ton	2.00	\$ 43.63	\$ 87.26
<b>Total Variable Expenses</b>					\$ 247.56
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Sprigging		acre	1	\$ -	\$ -
<b>Total Custom Machinery Cost</b>					\$ 28.89
Interest on Operating Capital	6 months	acre	\$ 247.56	8.0%	\$ 9.90
<b>Total Budgeted Expenses</b>					\$ 276.45

<b>Establishment Prorated Over Years<sup>7</sup></b>
10

## Bermuda Assumptions

1. The budget is based on custom rates for machinery processes. Labor, operating, maintenance, and ownership costs are included in these rates.
2. The budget is based on no-till establishment.
3. Nitrogen is applied in split applications.
4. Lime prorated at one ton over three years.
5. For a more accurate fertilizer and lime recommendation, take a soil sample. ([Instructions on how to take a soil sample.](#))
6. The post-emergence weed control is based on an average of three common practices. Burndown is a common practice. For weed control and/or burndown recommendations, contact the county Extension office. ([County office contact information.](#))
7. Establishment pro-rated expenses for hay are set for 10 years.

**Summer Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Crabgrass	lb	5.00	\$ 6.66	\$ 33.30
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	60.00	\$ 0.41	\$ 24.53
	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
	Weed Control				
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 210.97</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 210.97	8.0%	\$ 8.44
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 267.80</b>

**Summer Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Millet	lb	20.00	\$ 1.98	\$ 39.60
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	60.00	\$ 0.41	\$ 24.53
Lime & Application <sup>4,5</sup>	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 217.27</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 217.27	8.0%	\$ 8.69
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 274.35</b>

**Summer Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Sorghum-Sudan	lb	30.00	\$ 0.83	\$ 24.90
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	30.00	\$ 0.61	\$ 18.41
	K2O	lb	60.00	\$ 0.41	\$ 24.53
	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
Lime & Application <sup>4,5</sup>	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
	Weed Control				
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 202.57</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 202.57	8.0%	\$ 8.10
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 259.06</b>

**Winter Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Barley	lb	125.00	\$ 0.43	\$ 53.75
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
Lime & Application <sup>4,5</sup>	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 229.38</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 229.38	8.0%	\$ 9.18
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 286.94</b>



**Winter Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Rye	lb	125.00	\$ 0.48	\$ 60.00
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Lime & Application <sup>4,5</sup>	Custom Application	ton	0.50	\$ 43.63
<b>Weed Control</b>					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 235.63</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 235.63	8.0%	\$ 9.43
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 293.44</b>

**Winter Annual, Pasture**  
**Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Oats	lb	125.00	\$ 0.49	\$ 61.25
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
Lime & Application <sup>4,5</sup>	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 236.88</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 236.88	8.0%	\$ 9.48
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 294.74</b>

**Winter Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Ryegrass	lb	25.00	\$ 0.87	\$ 21.75
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
Lime & Application <sup>4,5</sup>	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 197.38</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 197.38	8.0%	\$ 7.90
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 253.66</b>

**Winter Annual, Pasture  
Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Triticale	lb	100.00	\$ 0.52	\$ 52.00
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
Lime & Application <sup>4,5</sup>	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 227.63</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 227.63	8.0%	\$ 9.11
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 285.12</b>

**Winter Annual, Pasture**  
**Estimated Expenses per Acre<sup>1,2</sup>**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
<b>Expenses</b>					
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66
Seed	Wheat	lb	150.00	\$ 0.28	\$ 42.00
Fertilizer	N <sup>3</sup>	lb	120.00	\$ 0.60	\$ 71.84
	P2O5	lb	40.00	\$ 0.61	\$ 24.54
	K2O	lb	40.00	\$ 0.41	\$ 16.35
Lime & Application <sup>4,5</sup>	Custom Application	acre	2.00	\$ 12.71	\$ 25.42
	Custom Application	ton	0.50	\$ 43.63	\$ 21.82
Weed Control					
Post-Emerge <sup>6</sup>	Herbicide Application	acre		\$ 12.30	\$ -
	Custom Application	acre		\$ 11.81	\$ -
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -
	Custom Application	acre		\$ 11.81	\$ -
<b>Total Variable Expenses</b>					<b>\$ 217.63</b>
<b>Custom Machinery Cost</b>					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Bush Hogging		acre	1	\$ 19.50	\$ 19.50
<b>Total Custom Machinery Cost</b>					<b>\$ 48.39</b>
Interest on Operating Capital	6 months	acre	\$ 217.63	8.0%	\$ 8.71
Cash Rent		acre	1		\$ -
<b>Total Budgeted Expenses</b>					<b>\$ 274.72</b>

### **Summer and Winter Annual Assumptions**

1. The budget is based on custom rates for machinery processes. Labor, operating, maintenance, and ownership costs are included in these rates.
2. The budget is based on no-till establishment.
3. Nitrogen is applied in split applications.
4. Lime prorated at one ton over two years.
5. For a more accurate fertilizer and lime recommendation, take a soil sample. ([Instructions on how to take a soil sample.](#))
6. The post-emergence weed control is based on an average of three common practices. Burndown is a common practice. For weed control and/or burndown recommendations, contact the county Extension office. ([County office contact information.](#))



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