

Alfalfa, Hay, Square Bale
Estimated Expenses per Acre^{1,2,3}

Item	Description	Unit	Quantity	Price	Amount (\$/acre)	Amount (\$/ton)	Amount (\$/bale)	Square Square
Income								
Hay	Alfalfa	ton	4.00	\$ 480.00	\$ 1,920.00	\$ 480.00	\$ 12.00	50
Expenses								
Prorated Establishment Costs		acre	0.25	\$ 463.13	\$ 115.78	\$ 28.95	\$ 0.72	
Fertilizer	N	lb	15.00	\$ 0.60	\$ 8.98	\$ 2.24	\$ 0.06	
	P2O5	lb	60.00	\$ 0.61	\$ 36.81	\$ 9.20	\$ 0.23	
	K2O	lb	190.00	\$ 0.41	\$ 77.67	\$ 19.42	\$ 0.49	
	Boron	lb	2.00	\$ 0.99	\$ 1.98	\$ 0.50	\$ 0.00	
	Custom Application	acre	1.00	\$ 12.71	\$ 12.71	\$ 3.18	\$ 0.08	
Lime & Application ^{4,5}	Custom Application	ton	0.67	\$ 43.63	\$ 29.23	\$ 7.31	\$ 0.18	
Weed Control								
Post-Emerge ⁶	Herbicide Application	acre	2.00	\$ 7.83	\$ 15.66	\$ 3.92	\$ 0.10	
	Custom Application	acre	2.00	\$ 11.81	\$ 23.62	\$ 5.91	\$ 0.15	
Pest Control	Pest Control Application	acre	1.00	\$ 6.51	\$ 6.51	\$ 1.63	\$ 0.04	
	Custom Application	acre	1.00	\$ 11.81	\$ 11.81	\$ 2.95	\$ 0.07	
Total Variable Expenses					\$ 340.77	\$ 85.19	\$ 2.12	
Return over Variable Expenses					\$ 1,579.23	\$ 394.81	\$ 9.88	
Custom Machinery Cost								
Disk Mowing		cutting	4	\$ 16.50	\$ 66.00	\$ 16.50	\$ 0.41	
Tedding		cutting	4	\$ 6.67	\$ 26.68	\$ 6.67	\$ 0.17	
Raking		cutting	4	\$ 8.67	\$ 34.68	\$ 8.67	\$ 0.22	
Baling		cutting	4	\$ 1.09	\$ 174.40	\$ 43.60	\$ 1.09	
Hauling		bale	160.00	\$ 0.75	\$ 120.00	\$ 30.00	\$ 0.75	
Total Custom Machinery Cost					\$ 421.76	\$ 105.44	\$ 2.64	
Interest on Operating Capital	6 months	acre	\$ 762.53	8.0%	\$ 30.50	\$ 7.63	\$ 0.19	
Cash Rent		acre	1		\$ -	\$ -	\$ -	
Storage								
Fixed Cost	Hay Barn	bale	160.00	\$ 0.23	\$ 36.60	\$ 9.15	\$ 0.23	
Shrinkage Loss ⁷		annual	3.5%		\$ 27.76	\$ 6.94	\$ 0.17	
Total Storage Cost					\$ 64.36	\$ 16.09	\$ 0.40	
Total Budgeted Expenses					\$ 857.39	\$ 214.35	\$ 5.35	
Return to Land & Management					\$ 1,062.61	\$ 265.65	\$ 6.65	

Alfalfa, Establishment
Estimated Expenses per Acre

**Establishment
Prorated Over
Years**
4⁸

Item	Description	Unit	Quantity	Price	Amount (\$/acre)
Expenses					
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	\$ 87.26
Total Variable Expenses					\$ 416.43
Custom Machinery Cost					
Spraying		acre	1	\$ 11.81	\$ 11.81
No-till Drill		acre	1	\$ 17.08	\$ 17.08
Total Custom Machinery Cost					\$ 28.89
Interest on Operating Capital	6 months	acre	\$ 445.32	8.0%	\$ 17.81
Total Budgeted Expenses					\$ 463.13

Return Above Variable Expenses

	Price (\$/ton)				
	\$ 430.00	\$ 455.00	\$ 480.00	\$ 505.00	\$ 530.00
Yield (ton)	3.0	3.5	4.0	4.5	5.0
	\$ 949.23	\$ 1,024.23	\$ 1,099.23	\$ 1,174.23	\$ 1,249.23
	\$ 1,164.23	\$ 1,251.73	\$ 1,339.23	\$ 1,426.73	\$ 1,514.23
	\$ 1,379.23	\$ 1,479.23	\$ 1,579.23	\$ 1,679.23	\$ 1,779.23
	\$ 1,594.23	\$ 1,706.73	\$ 1,819.23	\$ 1,931.73	\$ 2,044.23
	\$ 1,809.23	\$ 1,934.23	\$ 2,059.23	\$ 2,184.23	\$ 2,309.23

Return Above Fixed Expenses

	Price (\$/ton)				
	\$ 430.00	\$ 455.00	\$ 480.00	\$ 505.00	\$ 530.00
Yield (ton)	3.0	3.5	4.0	4.5	5.0
	\$ 432.61	\$ 507.61	\$ 582.61	\$ 657.61	\$ 732.61
	\$ 647.61	\$ 735.11	\$ 822.61	\$ 910.11	\$ 997.61
	\$ 862.61	\$ 962.61	\$ 1,062.61	\$ 1,162.61	\$ 1,262.61
	\$ 1,077.61	\$ 1,190.11	\$ 1,302.61	\$ 1,415.11	\$ 1,527.61
	\$ 1,292.61	\$ 1,417.61	\$ 1,542.61	\$ 1,667.61	\$ 1,792.61

Return Above Variable Expenses

	Yield		Variable (per bale)		Total Costs (per bale)	
	2.3	3.0	\$3.79	\$9.53		
	3.0	4.0	\$2.84	\$7.14		
	4.0	5.0	\$2.13	\$5.36		
	5.0	6.3	\$1.70	\$4.29		
			\$1.36	\$3.43		

Return Above Fixed Expenses

	Price (\$/bale)				
	\$ 10.00	\$ 11.00	\$ 12.00	\$ 13.00	\$ 14.00
Yield	156.0	158.0	160.0	162.0	164.0
	\$ 4.50	\$ 4.57	\$ 4.64	\$ 4.71	\$ 4.77
	\$ 5.50	\$ 5.57	\$ 5.64	\$ 5.71	\$ 5.77
	\$ 6.50	\$ 6.57	\$ 6.64	\$ 6.71	\$ 6.77
	\$ 7.50	\$ 7.57	\$ 7.64	\$ 7.71	\$ 7.77
	\$ 8.50	\$ 8.57	\$ 8.64	\$ 8.71	\$ 8.77

Alfalfa Assumptions

1. The budget is based on custom rates for machinery processes. Labor, operating, maintenance, and ownership costs are included in these rates. The baling rate includes binding.
2. Based on Roundup Ready Alfalfa.
3. The budget is based on no-till establishment.
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. Storage loss is based on an average of multiple studies.
8. Establishment pro-rated expenses for hay are set for four years.