

Winter Annual, Hay, Round Bale
Estimated Expenses per Acre^{1,2}

Item	Description	Unit	Quantity	Price	Amount (\$/acre)	Amount (\$/ton)	Amount (\$/bale)	Round 4x5 710
Income								
Hay	Ryegrass	ton	2.50	\$ 150.00	\$ 375.00	\$ 150.00	\$ 53.25	
Expenses								
Burndown	Burndown	acre	1.00	\$ 15.66	\$ 15.66	\$ 6.26	\$ 2.22	
Seed	Ryegrass	lb	25.00	\$ 0.87	\$ 21.75	\$ 8.70	\$ 3.09	
Fertilizer	N ³	lb	120.00	\$ 0.60	\$ 71.84	\$ 28.73	\$ 10.20	
	P2O5	lb	40.00	\$ 0.61	\$ 24.54	\$ 9.82	\$ 3.49	
	K2O	lb	40.00	\$ 0.41	\$ 16.35	\$ 6.54	\$ 2.32	
	Custom Application	acre	2.00	\$ 12.71	\$ 25.42	\$ 10.17	\$ 3.61	
Lime & Application ^{4,5}	Custom Application	ton	0.50	\$ 43.63	\$ 21.82	\$ 8.73	\$ 3.10	
Weed Control								
Post-Emerge ⁶	Herbicide Application	acre		\$ 12.30	\$ -	\$ -	\$ -	
	Custom Application	acre		\$ 11.81	\$ -	\$ -	\$ -	
Pest Control	Pest Control Application	acre		\$ 6.51	\$ -	\$ -	\$ -	
	Custom Application	acre		\$ 11.81	\$ -	\$ -	\$ -	
Total Variable Expenses					\$ 197.38	\$ 78.95	\$ 28.03	
Return over Variable Expenses					\$ 177.62	\$ 71.05	\$ 25.22	
Custom Machinery Cost								
Spraying		acre	1	\$ 11.81	\$ 11.81	\$ 4.72	\$ 1.68	
No-till Drill		acre	1	\$ 17.08	\$ 17.08	\$ 6.83	\$ 2.43	
Disk Mowing		cutting	1	\$ 16.50	\$ 16.50	\$ 6.60	\$ 2.34	
Tedding		cutting	1	\$ 6.67	\$ 6.67	\$ 2.67	\$ 0.95	
Raking		cutting	1	\$ 8.67	\$ 8.67	\$ 3.47	\$ 1.23	
Baling		cutting	1	\$ 13.17	\$ 92.75	\$ 37.10	\$ 13.17	
Hauling		bale	7.04	\$ 5.42	\$ 38.17	\$ 15.27	\$ 5.42	
Total Custom Machinery Cost					\$ 191.65	\$ 76.66	\$ 27.21	
Interest on Operating Capital	6 months	acre	\$ 197.38	8.0%	\$ 7.90	\$ 3.16	\$ 1.12	
Cash Rent		acre	1.0%		\$ -	\$ -	\$ -	
Storage								
Fixed Cost	Hay Barn	bale	7.04	\$ 4.43	\$ 31.22	\$ 12.49	\$ 4.43	
Shrinkage Loss ⁷		annual	3.5%		\$ 13.89	\$ 5.56	\$ 1.97	
Total Storage Cost					\$ 45.11	\$ 18.04	\$ 6.41	
Total Budgeted Expenses					\$ 442.03	\$ 176.81	\$ 62.77	
Return to Land & Management					\$ (67.03)	\$ (26.81)	\$ (9.52)	

Return Above Variable Expenses

	Price (\$/ton)				
	\$ 100.00	\$ 125.00	\$ 150.00	\$ 175.00	\$ 200.00
Yield	1.5	2.0	2.5	3.0	3.5
	\$ (47.38)	\$ (9.88)	\$ 27.62	\$ 65.12	\$ 102.62
	\$ 2.62	\$ 52.62	\$ 102.62	\$ 152.62	\$ 202.62
	\$ 52.62	\$ 115.12	\$ 177.62	\$ 240.12	\$ 302.62
	\$ 102.62	\$ 177.62	\$ 252.62	\$ 327.62	\$ 402.62
	\$ 152.62	\$ 240.12	\$ 327.62	\$ 415.12	\$ 502.62

Return Above Fixed Expenses

	Price (\$/ton)				
	\$ 100.00	\$ 125.00	\$ 150.00	\$ 175.00	\$ 200.00
Yield	1.5	2.0	2.5	3.0	3.5
	\$ (292.03)	\$ (254.53)	\$ (217.03)	\$ (179.53)	\$ (142.03)
	\$ (242.03)	\$ (192.03)	\$ (142.03)	\$ (92.03)	\$ (42.03)
	\$ (192.03)	\$ (129.53)	\$ (67.03)	\$ (4.53)	\$ 57.97
	\$ (142.03)	\$ (67.03)	\$ 7.97	\$ 82.97	\$ 157.97
	\$ (92.03)	\$ (4.53)	\$ 82.97	\$ 170.47	\$ 257.97

Return Above Fixed Expenses

	Variable (per bale)	Total Costs (per bale)
Yield	1.4	\$111.59
	1.9	\$83.69
	2.5	\$62.77
	3.1	\$50.21
	3.9	\$40.17

Return Above Fixed Expenses

	Price (\$/bale)				
	\$ 43.25	\$ 48.25	\$ 53.25	\$ 58.25	\$ 63.25
Yield (bale)	3.0	5.0	7.0	9.0	11.0
	\$ (102.05)	\$ (97.05)	\$ (92.05)	\$ (87.05)	\$ (82.05)
	\$ (44.41)	\$ (39.41)	\$ (34.41)	\$ (29.41)	\$ (24.41)
	\$ (19.52)	\$ (14.52)	\$ (9.52)	\$ (4.52)	\$ 0.48
	\$ (5.63)	\$ (0.63)	\$ 4.37	\$ 9.37	\$ 14.37
	\$ 3.22	\$ 8.22	\$ 13.22	\$ 18.22	\$ 23.22

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. The baling rate includes binding.
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.](#))
7. Storage loss is based on an average of multiple studies.