

**Cool Season Grass, Hay Crop Silage
Estimated Expenses per Acre**

Item	Description	Unit	Quantity	Price	Amount (\$/acre)	Your Farm
Variable Expenses						
Fertilizer ¹	N	lb	120.00	\$ 0.48	\$ 57.60	_____
	P2O5	lb	30.00	\$ 0.34	\$ 10.20	_____
	K2O	lb	30.00	\$ 0.23	\$ 6.90	_____
	Custom Application	acre	3.00	\$ 5.00	\$ 15.00	_____
Lime ²	Custom Application	ton	0.33	\$ 21.00	\$ 6.93	_____
Overseeding ³	Fescue or Orchardgrass	lb	2.00	\$ 1.00	\$ 2.00	_____
No-Till Drill, Rental		acre	0.17	\$ 8.00	\$ 1.36	_____
Weed Control ⁴						
Post-Emerge	2,4-D Ester 4EC	pt	1.00	\$ 2.04	\$ 2.04	_____
	Custom Application	acre	0.50	\$ 5.00	\$ 2.50	_____
Machinery						
Fuel		acre	1.00	\$ 36.47	\$ 36.47	_____
Oil & Filter		acre	1.00	\$ 5.47	\$ 5.47	_____
Repairs & Maintenance		acre	1.00	\$ 36.51	\$ 36.51	_____
Interest on Operating Capital	6 months	acre	\$ 182.98	8.0%	\$ 7.32	_____
			Total Variable Expenses		\$ 190.30	_____
Fixed Expenses						
Establishment Cost	Prorated over 6 years	acre	1.00	\$ 31.99	\$ 31.99	_____
Machinery						
Depreciation		acre	1.00	\$ 28.60	\$ 28.60	_____
Interest		acre	1.00	\$ 34.53	\$ 34.53	_____
Housing & Insurance		acre	1.00	\$ 3.09	\$ 3.09	_____
			Total Fixed Expenses		\$ 98.22	_____
Labor Expenses						
Labor ⁵		hour	6.18	\$ 8.50	\$ 52.51	_____
			Total Budgeted Expenses		\$ 341.03	_____

Footnotes:

¹60 lbs of nitrogen applied in March, 30 lbs applied in May, and 30 lbs applied in September to produce Fall cutting of silage.

²Lime is applied at the rate of 2 tons every 6 years.

³Overseed 12 lbs once over 6 years. Prorated over stand-life.

⁴Weed spray is done every other year at a rate of 2 pt/acre, to supplement clipping and control broadleaf weeds.

⁵Labor expense is \$8.50 per hour, including wages, Social Security and Medicaid taxes and payroll administration costs.

**Cool Season Grass, Hay Crop Silage
Estimated Machinery and Labor Requirements per Acre**

Month	Operation	Power Unit	Implement	Hours per Acre	
				Machine	Labor
Mar	Fertilize	Custom	Custom	---	---
Mar	Post-Emerge (2,4-D Ester 4EC)	Custom	Custom	---	---
Apr	Mow	Tractor, 70 hp	Mower-Conditioner, 9'	0.37	0.46
Apr	Chop	Tractor, 100 hp	Forage Chopper Windrow Header Forage Wagon #1	0.56	0.70
Apr	Stack & Move	Tractor, 70 hp	Forage Wagon #2	0.28	0.35
Apr	Store	Tractor, 70 hp	Forage Blower	0.28	0.35
May	Fertilize	Custom	Custom	---	---
Jun	Mow	Tractor, 70 hp	Mower-Conditioner, 9'	0.37	0.46
Jun	Chop	Tractor, 100 hp	Forage Chopper Windrow Header Forage Wagon #1	0.56	0.70
Jun	Stack & Move	Tractor, 70 hp	Forage Wagon #2	0.28	0.35
Jun	Store	Tractor, 70 hp	Forage Blower	0.28	0.35
Sep	Fertilize	Custom	Custom	---	---
Oct	Mow	Tractor, 70 hp	Mower-Conditioner, 9'	0.37	0.46
Oct	Chop	Tractor, 100 hp	Forage Chopper Windrow Header Forage Wagon #1	0.56	0.70
Oct	Stack & Move	Tractor, 70 hp	Forage Wagon #2	0.28	0.35
Oct	Store	Tractor, 70 hp	Forage Blower	0.28	0.35
Oct	Overseed	Tractor, 70 hp	No-Till Drill, Rental	0.47	0.59
				Total	6.18

Estimated Machinery Expenses per Acre

Machine	Hours per Acre	Variable Cost			Total Variable Costs	Fixed Cost			Total Fixed Costs
		Fuel	Oil & Filter	Repairs	Depreciation	Interest	Housing & Insurance		
Tractor, 100 hp	1.68	15.49	2.32	6.22	24.03	4.51	5.66	0.30	10.47
Tractor, 70 hp	3.26	20.98	3.15	6.91	31.04	4.18	4.97	0.37	9.53
Mower-Conditioner, 9'	1.10	0.00	0.00	5.65	5.65	3.05	4.97	0.40	8.41
Forage Chopper	1.68	0.00	0.00	9.08	9.08	4.50	5.16	0.41	10.07
Windrow Header	1.68	0.00	0.00	1.09	1.09	1.33	1.52	0.33	3.17
Forage Wagon #1	1.68	0.00	0.00	4.57	4.57	6.81	7.57	0.66	15.05
Forage Wagon #2	0.84	0.00	0.00	2.28	2.28	3.41	3.79	0.51	7.70
Forage Blower	0.84	0.00	0.00	0.71	0.71	0.82	0.91	0.11	1.83
Total		\$ 36.47	\$ 5.47	\$ 36.51	\$ 78.45	\$ 28.60	\$ 34.53	\$ 3.09	\$ 66.23
Total Machinery Cost									\$ 144.68

Break-even Analysis

		<u>Yield/Acre</u>		<u>Break-even Price/Ton</u>
Break-even Price over Total Variable Expenses:	Below-Average Yield	4.5	tons	\$ 42.29
	Average Yield	6.0	tons	\$ 31.72
	Above-Average Yield	8.5	tons	\$ 22.39
Break-even Price over Total Budgeted Expenses:	Below-Average Yield	4.5	tons	\$ 75.79
	Average Yield	6.0	tons	\$ 56.84
	Above-Average Yield	8.5	tons	\$ 40.12