

Fescue - Clover Hay Planning Budget for 2019

This budget presents information useful to farmers planning the production, financing, grazing and marketing of fescue-clover hay. Table 1 presents estimates for the 2019 crop year for established fescue-clover hay in northern, central and southwest Missouri. Assumptions were based on price conditions as of October 2018. Detailed prices and practices are summarized in Tables 2 and 3. The production practices used to develop these cost estimates are common in Missouri. Farmers are encouraged to modify this budget based on their circumstances.

Table 1. Missouri fescue-clover hay planning budget for 2019.

	Dollars per acre ¹	Your estimate
Income per acre		
Hay	360.00	
Grazing	15.00	
Other income	0.00	
Total income per acre	375.00	
Operating costs per acre		
Seed	0.00	
Fertilizer and soil amendments	64.12	
Crop protection chemicals	0.00	
Crop supplies, storage, and marketing	10.00	
Custom hire and rental	24.50	
Machinery fuel and irrigation energy	6.37	
Machinery repairs and maintenance	7.25	
Operator and hired labor	8.97	
Operating interest	3.64	
Total operating costs per acre	124.85	
Ownership costs per acre		
Farm business overhead	5.00	
Machinery overhead	6.96	
Machinery depreciation	10.26	
Real estate charge	39.90	
Total ownership costs per acre	62.12	
Total costs per acre	186.96	
Income over operating costs per acre	250.15	
Income over total costs per acre	188.04	

¹ Totals may not sum due to rounding.

Table 2 shows input assumptions used to estimate the fescue-clover hay budget. Price estimates reflect harvest time prices. Costs or returns from storage or other marketing methods are not included. No income from government programs are added. Farm business overhead includes liability insurance, utilities, accounting, etc. Real estate charge is an estimated rental rate for above average land.

Table 2. Input assumptions used in fescue-clover hay planning budget for 2019.

Selected input quantities	Per acre	Selected input prices	Dollars per unit
Hay yield, tons, 10% moisture	3	Hay price, per ton	120.00
Pasture yield, animal unit month	1	Pasture price, per animal unit month	15.00
Nitrogen rate, pounds N	40	Nitrogen, per pound N	0.42
Phosphorus rate, pounds P ₂ O ₅	46	Phosphorus, per pound P ₂ O ₅	0.42
Potassium rate, pounds K ₂ O	60	Potassium, per pound K ₂ O	0.30
Lime rate, tons	0.5	Lime, per ton	20.00
Sum of allocated labor, hours	0.57	Skilled labor, per hour	18.00
		Farm diesel, per gallon	2.86

Table 3 details the field activities assumed in this budget and their machinery costs. Machinery costs were estimated using an economic engineering approach.

Table 3. Machinery assumptions used in fescue-clover hay planning budget for 2019, on a per acre basis.

Machine activity (not custom fieldwork)	Labor (hours)	Fuel (gallons)	Operating costs ¹ (dollars)	Ownership costs ² (dollars)	Total costs (dollars)	Trips across field
Disk mower-conditioner (9 feet); 130 MFWD	0.18	1.01	7.67	7.37	15.04	1
Wheel rake (2-16'); 75 2WD	0.04	0.13	1.31	2.44	3.75	1
Round baler, net wrap (1500 pound); 130 MFWD	0.11	0.61	7.95	4.11	12.05	1
Pickup truck		0.52	2.28	3.31	5.59	
Total³	0.32	2.26	19.22	17.22	36.43	3

¹ Machinery operating cost is the sum of fuel, repairs, maintenance, and the value of labor.

² Machinery ownership cost is the sum of machinery overhead and depreciation.

³ Totals may not sum due to rounding.

Abbreviations: 2WD = 2-wheel drive tractor; MFWD = modified front-wheel drive tractor

Farmers can also develop their own custom budget by using the Missouri Forage Budget Generator Tool (<http://crops.missouri.edu/economics/budgets/FBG.xlsm>). This spreadsheet tool allows users to develop a custom estimate for their costs and returns for growing fescue-clover hay and other forage crops in Missouri.