

Switchgrass, 2nd Year, 2010

Estimated Nov 2009

Yield, tons air-dry: 3.00
 Weighted value per ton, air-dry: \$40.00

Income per acre		Yield	Price	Business unit total
Hay	1200 lb bales	5	24.00	120.00
Other income				0.00
Total income per acre				\$120.00

Operating costs per acre				
Seed				0.00
Fertilizer				74.50
Nitrogen			35.20	
Phosphorus			4.05	
Potassium			35.25	
Other amendments			0.00	
Crop protection				7.95
Herbicide, Spring broadleaf			7.95	
Insecticide-fungicide			0.00	
Crop supplies, storage				15.00
Crop consulting				0.00
Custom hire and rental				25.00
Machinery fuel and irrigation energy				6.44
Machinery repairs and maintenance				4.44
Operator and hired labor				9.21
Other expense				0.00
Operating interest				4.99
Operating costs per acre				\$147.53

Ownership costs per acre ¹				
Farm business overhead				3.75
Machinery overhead				11.73
Machinery depreciation				13.90
Real estate charge				28.20
Ownership costs per acre				\$57.58

Total costs per acre **\$205.11**

Income over operating costs per acre				-\$27.53
Income over total costs per acre				-\$85.11

Operating costs per ton, air-dry basis	\$49.18
Ownership costs per ton, air-dry basis	\$19.19
Total costs per ton, air-dry basis	\$68.37

Detailed Report

Production Switchgrass, 2nd Year, 2010

Selected input quantities	per acre	Selected input prices	\$ per unit
Forage yield, tons	3.00	Farm diesel, per gallon	2.45
Seeding rate, lbs	0	Operating interest, %	7.00
Nitrogen rate, lbs	80	Nitrogen, per lb	0.44
Phosphorus rate, lbs	15	Phosphorus, per lb	0.27
Potassium rate, lbs	75	Potassium, per lb	0.47
Lime rate, tons	0	Lime, per ton	0.00
Sum of allocated labor, hours	0.63	Skilled labor, per hour	17.00
Irrigation, inches	0	Land value, per acre	1,410

Machine activity (not custom)	Labor	Fuel	Operating	Ownership	Total	Trips
	Hours	Gallons	Costs ²	Costs ³	Costs	
	per acre	per acre	\$ per acre	\$ per acre	\$ per acre	per acre
Boom sprayer (30 ft); 75 HP	0.07	0.21	2.19	1.81	4.01	1
Disk mower-conditioner (9 ft); 130 MFWD	0.18	1.01	6.92	7.23	14.15	1
Wheel rake, V hitch (8 wheel); 60 HP	0.05	0.13	1.12	3.84	4.96	1
Large rectangular baler; 160 MFWD	0.09	0.65	4.68	10.07	14.74	1
Pickup truck		0.58	2.23	2.68	4.91	
Total	0.38	2.58	17.14	25.63	42.77	4

¹ Farm business overhead includes liability insurance, utilities, accounting, etc. Machinery overhead is the sum of opportunity interest, property taxes, insurance, and housing. Machinery depreciation is a market value decline due to aging and usage. Thus, a portion of depreciation should be considered an operating costs for some decisions. Real estate charge includes land, improvements, taxes.

Economic costs may differ from rental rates.

² Machinery operating cost is the sum of fuel, repairs, maintenance, and the value of labor.

³ Machinery ownership cost is the sum of machinery overhead and depreciation (see page 1).