

Sorghum

Prepared October 2016 for 2017 Growing Season by Ray Massey

	Units	Yield	Price	Business total
Income per acre				
Primary crop	bushels	85	3.20	272.00
By product crop	bushels	0	0.00	0.00
Net payments (fixed)				0.00
Other income				0.00
Total income per acre				\$272.00
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Operating costs per acre				
Seed				13.80
Fertilizer				67.20
Nitrogen			29.70	
Phosphorus			18.50	
Potassium			10.00	
Other soil amendments			9.00	
Crop protection				31.00
Herbicide			31.00	
Insect-fungicide			0.00	
Crop supplies, storage, and marketing				1.00
Crop consulting and insurance				14.00
Custom hire and rental				6.00
Machinery fuel, drying, and irrigation energy				11.71
Machinery repairs and maintenance				11.85
Operator and hired labor				13.10
Other expense				0.00
Operating interest				4.67
Operating costs per acre				\$174.34
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Ownership costs per acre ¹				
Farm business overhead				3.40
Machinery overhead				23.45
Machinery depreciation				25.46
Real estate charge				115.50
Ownership costs per acre				\$167.80
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Total costs per acre				\$342.14
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Income over operating costs per acre				97.66
Income over total costs per acre				-70.14
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	Operating costs per bushel			2.05
	Ownership costs per bushel			1.97
	Total costs per bushel			4.03

Detailed Report

Grain sorghum

Gr Sorghum 2017

10/24/2016

Selected input quantities	per acre	Selected input prices	\$ per unit
Yield, bushels	85.0	Farm diesel, per gallon	2.35
Seeding rate, count	90,000	Operating interest, %	5.50
Nitrogen rate, lbs	90	Nitrogen, per lb	0.33
Phosphorus rate, lbs	50	Phosphorus, per lb	0.37
Potassium rate, lbs	40	Potassium, per lb	0.25
Lime rate, tons	0.5	Lime, per ton	18.00
Sum of allocated labor, hours	0.88	Skilled labor, per hour	18.00
Irrigation, inches	0	Land value, per acre	3,500

Machine activity (not custom)	Labor Hours per acre	Fuel Gallons per acre	Operating Costs ² \$ per acre	Ownership Costs ³ \$ per acre	Total Costs \$ per acre	Trips per acre
Field cultivator (35 ft); 360 4WD	0.04	0.63	2.99	4.64	7.63	1
V-Ripper 30" O.C., (17 ft); 360 4WD	0.03	0.45	1.86	5.72	7.58	0.3
Split row no-till planter (16/31 row 30/15"); 225 MFWD	0.05	0.53	4.41	11.78	16.19	1
Boom sprayer (90 ft); 130 MFWD	0.04	0.25	2.35	3.90	6.24	2
Anhydrous applicator (21 ft); 225 MFWD	0.09	0.88	4.68	6.83	11.51	1
Combine, fixed grain head (30 ft); 275 HP Comb.	0.07	0.91	7.23	8.86	16.09	1
Grain cart (500 bushel); 225 MFWD	0.04	0.37	1.79	2.63	4.42	
Grain auger 10 in- 5000 bu/hr (70 ft); 130 MFWD	0.02	0.10	0.58	0.60	1.17	
Semi, tractor and trailer		0.52	2.72	2.16	4.88	
Pickup truck		0.38	1.32	1.78	3.10	
Total	0.38	5.02	29.92	48.90	78.82	6.3

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).