

2017 Grain Sorghum, No-Till, Non-Irrigated Budget

	Unit	Quantity	Price	Total	Your Farm
Revenue					
Grain Sorghum ¹	Bu	90	\$3.55	\$319.50	_____
				Gross Revenue (\$/Acre)	
				Total Revenue \$319.50	_____
Variable Expenses					
Seed ²	Thous.	85	\$0.24	\$20.19	_____
Fertilizer & Lime (Table 1)	Acre	1	\$86.57	\$86.57	_____
Chemical (Table 2) ³	Acre	1	\$74.87	\$74.87	_____
Crop Scout	Acre	1	\$6.00	\$6.00	_____
Repair & Maintenance (Table 3) ⁴	Acre	1	\$18.33	\$18.33	_____
Fuel, Oil & Filter (Table 3) ⁴	Acre	1	\$8.49	\$8.49	_____
Operator Labor (Table 3) ⁴	Acre	1	\$5.10	\$5.10	_____
Machinery Rental	Acre	0	\$0.00	\$0.00	_____
Custom Work	Acre	0	\$0.00	\$0.00	_____
Drying (Fuel/Electric)	Bu	90	\$0.00	\$0.00	_____
Cash Rent ⁵	Acre	1	\$94.00	\$94.00	_____
Crop Insurance ⁶	Acre	1	\$11.53	\$11.53	_____
Operating Interest ⁷	%	\$325.08	6.00%	\$9.75	_____
Other Variable Costs	Acre	1	\$0.00	\$0.00	_____
				Total Variable Expenses \$334.84	_____
				Return Above Variable Expenses -\$15.34	_____
Fixed Expenses					
Machinery ⁴					
Capital Recovery (Table 3)	Acre	1	\$47.33	\$47.33	_____
Other Fixed Machinery Costs	Acre	1	\$0.00	\$0.00	_____
Property Taxes	Acre	1	\$0.00	\$0.00	_____
Insurance (Non-Machinery)	Acre	1	\$0.00	\$0.00	_____
Management Labor	Acre	1	\$15.00	\$15.00	_____
Other Fixed Costs	Acre	1	\$0.00	\$0.00	_____
				Total Fixed Expenses \$62.33	_____
				Return Above All Specified Expenses -\$77.67	_____

Breakeven Price For Selected Yield

Yield (bu)	Variable Cost (\$/bu)	Total Specified Cost (\$/bu)
70	\$4.78	\$5.67
75	\$4.46	\$5.30
80	\$4.19	\$4.96
85	\$3.94	\$4.67
90	\$3.72	\$4.41
95	\$3.52	\$4.18
100	\$3.35	\$3.97
105	\$3.19	\$3.78
110	\$3.04	\$3.61

Breakeven Yield for Selected Price

Price (\$/bu)	Variable Cost (bu)	Total Specified Cost (bu)
\$3.35	100	119
\$3.40	98	117
\$3.45	97	115
\$3.50	96	113
\$3.55	94	112
\$3.60	93	110
\$3.65	92	109
\$3.70	90	107
\$3.75	89	106

Table 1. Fertilizer & Lime

Fertilizer	Description	Quantity (lbs)	Price (\$)	Total (\$/Acre)	Your Farm (\$/Acre)
Nitrogen	Urea	90	\$0.36	\$32.09	_____
Phosphorous	P ₂ O ₅	60	\$0.34	\$20.44	_____
Potassium	K ₂ O	60	\$0.26	\$15.80	_____
Lime	Limestone	1,000	\$36.50	\$18.25	_____
Other		0	\$0.00	\$0.00	_____
Total				\$86.57	_____

Table 2. Chemicals³

Chemical	Function	Description	Unit	Number of Apps.	Quantity	Price	Total (\$/Acre)	Your Farm (\$/Acre)
Herbicides	Burndown	Gramoxone SL	oz.	1	40	\$0.14	\$5.50	_____
		Surfactant	pt.	1	0.2	\$3.52	\$0.70	_____
	Pre-Emerge	Bicep II Magnum	qt.	1	2.1	\$12.62	\$26.50	_____
		Atrazine 4L	qt.	1	1	\$3.33	\$3.33	_____
		Crop Oil	pt.	1	2	\$3.25	\$6.50	_____
Insecticides	Post-Emerge	Atrazine 4L	qt.	1	1	\$3.33	\$3.33	_____
		Seed Treatment	acre	1	1	\$8.00	\$8.00	_____
	Foliar	acre	1	1	\$10.00	\$10.00	_____	
Total		Foliar (Aphids)	acre	1	1	\$11.00	\$11.00	_____
							\$74.87	_____

Table 3. Machinery⁴

Plant	Power Unit	Implement	Size	Capital Recovery	Repairs & Maintenance	Fuel, Oil & Filter	Labor	Total	Your Farm (\$/Acre)
Burndown	Tractor, 215 hp	Planter	16-row	\$6.46	\$3.71	\$1.07	\$0.79	\$12.03	_____
Weed Control	SP Boom Sprayer		90'	\$4.19	\$0.24	\$0.20	\$0.16	\$4.79	_____
Fertilize	Tractor, 215 hp	Fertilize Spreader	900#	\$1.65	\$2.03	\$1.13	\$0.84	\$5.66	_____
Weed Control	SP Boom Sprayer		90'	\$4.19	\$0.24	\$0.20	\$0.16	\$4.79	_____
Insecticide	SP Boom Sprayer		90'	\$4.19	\$0.24	\$0.20	\$0.16	\$4.79	_____
Insecticide	SP Boom Sprayer		90'	\$4.19	\$0.24	\$0.20	\$0.16	\$4.79	_____
Harvest	Combine	Grain Head	30'	\$11.11	\$9.80	\$3.45	\$1.23	\$25.59	_____
Haul	Tractor, 215 hp	Grain Cart		\$2.31	\$1.06	\$0.69	\$0.52	\$4.57	_____
Haul	Semi Tractor/Trailer		800 bu	\$4.83	\$0.52	\$1.16	\$0.93	\$7.44	_____
Total				\$47.33	\$18.33	\$8.49	\$5.10	\$79.26	_____

FOOTNOTES

- 1) Sorghum price is estimated at 10 cents under the price of corn.
- 2) Seed cost includes fungicide treatment. Check with farm suppliers for rebates, discounts, and incentives for seed and chemicals. Substantial cost savings may be available.
- 3) Do not use Dual Mangum unless you plant seed that has been safened with Concep or Screen. Do not use Lariat, Bullet, or Lasso Pre unless you plant seed that has been safened with a seed safener containing the active ingredient Flurzole. Late-planted sorghum is susceptible to sorghum midge and must be scouted for possible treatment. An insecticide application for sugarcane aphids in addition to an insecticide application for other pests is assumed.
- 4) Machinery expenses will vary dramatically by operation, financial resources, and land base. The machinery cost estimates provided in Table 3 are provided as an estimate of cost of ownership and operation for specified pieces of machinery that would be available to a "representative" row-crop farm in Tennessee. To estimate machinery costs for a specific set of equipment, interested parties can utilize the Excel version of the budgets and modify the Machinery Assumptions Table.
- 5) Cash rental rates are the 2016 USDA-NASS reported cash rental rates for cropland in Tennessee. Substantial differences may exist in cash rental rates reported by NASS and the prevailing rate in your location.
- 6) Crop insurance is an estimate and will vary by policy, county, and coverage election. The estimate provided is the average premium paid per insured acre of grain sorghum in Tennessee for the previous production year as reported by USDA RMA's Summary of Business Report.
- 7) Operating interest is assumed to be charged on half of all variable expenses.