

## 2017 Grain Sorghum, Conventional Tillage, Non-Irrigated Budget

	<u>Unit</u>	<u>Quantity</u>	<u>Price</u>	<u>Total</u>	<u>Your Farm</u>
<b>Revenue</b>					
Grain Sorghum <sup>1</sup>	Bu	90	\$3.55	\$319.50	_____
				<b>Gross Revenue (\$/Acre)</b>	
				<b>Total Revenue \$319.50</b>	_____
<b>Variable Expenses</b>					
Seed <sup>2</sup>	Thous.	85	\$0.24	\$20.19	_____
Fertilizer & Lime (Table 1)	Acre	1	\$86.57	\$86.57	_____
Chemical (Table 2) <sup>3</sup>	Acre	1	\$62.16	\$62.16	_____
Crop Scout	Acre	1	\$6.00	\$6.00	_____
Repair & Maintenance (Table 3) <sup>4</sup>	Acre	1	\$25.27	\$25.27	_____
Fuel, Oil & Filter (Table 3) <sup>4</sup>	Acre	1	\$12.40	\$12.40	_____
Operator Labor (Table 3) <sup>4</sup>	Acre	1	\$8.00	\$8.00	_____
Machinery Rental	Acre	1	\$0.00	\$0.00	_____
Custom Work	Acre	1	\$0.00	\$0.00	_____
Drying (Fuel/Electric)	Bu	90	\$0.00	\$0.00	_____
Cash Rent <sup>5</sup>	Acre	1	\$94.00	\$94.00	_____
Crop Insurance <sup>6</sup>	Acre	1	\$11.53	\$11.53	_____
Operating Interest <sup>7</sup>	%	\$326.13	6.00%	\$9.78	_____
Other Variable Costs	Acre	1	\$0.00	\$0.00	_____
				<b>Total Variable Expenses \$335.91</b>	_____
				<b>Return Above Variable Expenses -\$16.41</b>	_____
<b>Fixed Expenses</b>					
Machinery <sup>4</sup>					
Capital Recovery (Table 3)	Acre	1	\$51.95	\$51.95	_____
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	_____
				<b>Total Fixed Expenses \$66.95</b>	_____
				<b>Return Above All Specified Expenses -\$83.36</b>	_____

### Breakeven Price For Selected Yield

Yield (bu)	Variable Cost (\$/bu)	Total Specified Cost (\$/bu)
70	\$4.80	\$5.76
75	\$4.48	\$5.37
80	\$4.20	\$5.04
85	\$3.95	\$4.74
<b>90</b>	<b>\$3.73</b>	<b>\$4.48</b>
95	\$3.54	\$4.24
100	\$3.36	\$4.03
105	\$3.20	\$3.84
110	\$3.05	\$3.66

### Breakeven Yield for Selected Price

Price (\$/bu)	Variable Cost (bu)	Total Specified Cost (bu)
\$3.35	100	120
\$3.40	99	118
\$3.45	97	117
\$3.50	96	115
<b>\$3.55</b>	<b>95</b>	<b>113</b>
\$3.60	93	112
\$3.65	92	110
\$3.70	91	109
\$3.75	90	107

**Table 1. Fertilizer & Lime**

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

**Table 2. Chemicals<sup>3</sup>**

Chemical	Function	Description	Unit	Number of Apps.	Quantity	Price	Total (\$/Acre)	Your Farm (\$/Acre)
Herbicides	Pre-Emerge	Bicep II Magnum	qt.	1	2.1	\$12.62	\$26.50	_____
	Post-Emerge	Atrazine	qt.	1	2	\$3.33	\$6.66	_____
Insecticides		Seed Treatment	acre	1	1	\$8.00	\$8.00	_____
		Foliar	acre	1	1	\$10.00	\$10.00	_____
		Foliar (Aphids)	acre	1	1	\$11.00	\$11.00	_____
<b>Total</b>							<b>\$62.16</b>	_____

**Table 3. Machinery<sup>4</sup>**

	Power Unit	Implement	Size	Capital Recovery	Repairs & Maintenance	Fuel, Oil & Filter	Labor	Total	Your Farm (\$/Acre)
Chisel	Tractor, 215 hp	Chisel Plow	21'	\$1.90	\$2.38	\$1.55	\$1.16	\$6.98	_____
Disk	Tractor, 215 hp	Tandem Disk	29'	\$4.48	\$2.59	\$1.25	\$0.93	\$9.25	_____
Prepare Seedbed	Tractor, 215 hp	Do-All	26.5'	\$2.43	\$2.21	\$1.31	\$0.97	\$6.92	_____
Plant	Tractor, 215 hp	Planter	16-row	\$6.46	\$3.71	\$1.07	\$0.79	\$12.03	_____
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	_____
Weed Control	SP Boom Sprayer		90'	\$4.19	\$0.24	\$0.20	\$0.16	\$4.79	_____
Insect Control	SP Boom Sprayer		90'	\$4.19	\$0.24	\$0.20	\$0.16	\$4.79	_____
Insect Control	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	_____
<b>Total</b>				<b>\$51.95</b>	<b>\$25.27</b>	<b>\$12.40</b>	<b>\$8.00</b>	<b>\$97.62</b>	_____

**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 wheat 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.