

## 2017 Wheat/Soybean Double Cropped, Non-Irrigated Budget

	<u>Unit</u>	<u>Quantity</u>	<u>Price</u>	<u>Total</u>	<u>Your Farm</u>
<b>Revenue</b>					
				<b>Gross Revenue (\$/Acre)</b>	
Soybeans <sup>1</sup>	Bu	40	\$9.80	\$392.00	_____
Wheat <sup>2</sup>	Bu	65	\$4.25	\$276.25	_____
				<b>Total Revenue</b>	_____
				<b>\$668.25</b>	_____
<b>Variable Expenses <sup>3</sup></b>					
Seed, Soybeans <sup>4*</sup>	Thous.	140	\$0.43	\$60.00	_____
Seed, Wheat <sup>4</sup>	Bu	2	\$17.50	\$35.00	_____
Fertilizer & Lime (Table 1)	Acre	1	\$100.88	\$100.88	_____
Chemical (Table 2) <sup>5,6,7,8,9,10**</sup>	Acre	1	\$97.40	\$97.40	_____
Crop Scout	Acre	1	\$6.00	\$6.00	_____
Repair & Maintenance (Table 3) <sup>11</sup>	Acre	1	\$45.18	\$45.18	_____
Fuel, Oil & Filter (Table 3) <sup>11</sup>	Acre	1	\$20.50	\$20.50	_____
Operator Labor (Table 3) <sup>11</sup>	Acre	1	\$12.78	\$12.78	_____
Machinery Rental	Acre	0	\$0.00	\$0.00	_____
Custom Work	Acre	0	\$0.00	\$0.00	_____
Drying (Fuel/Electric)	Bu	40	\$0.00	\$0.00	_____
Cash Rent <sup>12</sup>	Acre	1	\$94.00	\$94.00	_____
Crop Insurance <sup>13</sup>	Acre	1	\$14.78	\$14.78	_____
Operating Interest <sup>14</sup>	%	\$486.53	6.00%	\$14.60	_____
Other Variable Costs	Acre	1	\$0.00	\$0.00	_____
				<b>Total Variable Expenses</b>	_____
				<b>\$501.12</b>	_____
				<b>Return Above Variable Expenses</b>	_____
				<b>\$167.13</b>	_____
<b>Fixed Expenses</b>					
Machinery <sup>11</sup>					_____
Capital Recovery (Table 3)	Acre	1	\$83.58	\$83.58	_____
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</b>	_____
				<b>\$98.58</b>	_____
				<b>Return Above All Specified Expenses</b>	_____
				<b>\$68.55</b>	_____

### Breakeven Price For Selected Soybean Yield <sup>15</sup>

Yield (bu)	Variable Cost (\$/bu)	Total Specified Cost (\$/bu)
20	\$12.53	\$14.99
25	\$10.02	\$11.99
30	\$8.35	\$10.00
35	\$7.16	\$8.57
<b>40</b>	<b>\$6.26</b>	<b>\$7.50</b>
45	\$5.57	\$6.66
50	\$5.01	\$6.00
55	\$4.56	\$5.45
60	\$4.18	\$5.00

### Breakeven Yield for Selected Soybean Price <sup>15</sup>

Price (\$/bu)	Variable Cost (bu)	Total Specified Cost (bu)
\$7.80	32	38
\$8.30	30	36
\$8.80	28	34
\$9.30	27	32
<b>\$9.80</b>	<b>26</b>	<b>31</b>
\$10.30	24	29
\$10.80	23	28
\$11.30	22	27
\$11.80	21	25

### Breakeven Price For Selected Wheat Yield <sup>15</sup>

Yield (bu)	Variable Cost (\$/bu)	Total Specified Cost (\$/bu)
45	\$5.57	\$6.66
50	\$5.01	\$6.00
55	\$4.56	\$5.45
60	\$4.18	\$5.00
<b>65</b>	<b>\$3.85</b>	<b>\$4.61</b>
70	\$3.58	\$4.28
75	\$3.34	\$4.00
80	\$3.13	\$3.75
85	\$2.95	\$3.53

### Breakeven Yield for Selected Wheat Price <sup>15</sup>

Price (\$/bu)	Variable Cost (bu)	Total Specified Cost (bu)
\$2.25	111	133
\$2.75	91	109
\$3.25	77	92
\$3.75	67	80
<b>\$4.25</b>	<b>59</b>	<b>71</b>
\$4.75	53	63
\$5.25	48	57
\$5.75	44	52
\$6.25	40	48

**Table 1. Fertilizer & Lime**

Fertilizer	Description	Quantity (lbs)	Price (\$)	Total (\$/Acre)	Your Farm (\$/Acre)
Nitrogen	Ammonium Nitrate	80	\$0.48	\$38.40	_____
Phosphorous	P <sub>2</sub> O <sub>5</sub>	60	\$0.47	\$28.43	_____
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>\$100.88</b>	_____

**Table 2. Chemicals** 5,6,7,8,9,10\*\*

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	_____
Soybeans		Metribuzin	oz.	1	4	\$0.86	\$3.44	_____
	Post-Emerge	Roundup Power Max	qt.	1	1	\$4.49	\$4.49	_____
		Flexstar GT	pt.	1	3	\$4.10	\$12.30	_____
Herbicides-		Harmony Extra	oz.	1	0.5	\$14.03	\$7.02	_____
Wheat		Axial XL	oz.	1	16.4	\$1.07	\$17.55	_____
		Surfactant	pt.	1	0.1	\$3.52	\$0.35	_____
Insecticides		Wheat-seed treatment	acre	1	1	\$11.00	\$11.00	_____
		Wheat-Foliar	acre	1	1	\$3.00	\$3.00	_____
		Soybeans	acre	1	1	\$5.00	\$5.00	_____
Fungicides		Soybeans	acre	1	1	\$12.00	\$12.00	_____
		Soybeans-seed treatment	acre	1	1	\$3.75	\$3.75	_____
		Wheat-foliar	acre	1	1	\$12.00	\$12.00	_____
<b>Total</b>							<b>\$97.40</b>	_____

**Table 3. Machinery** <sup>11</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	Cultimulcher	20'	\$2.73	\$3.00	\$1.73	\$1.29	\$8.75	_____
Plant	Tractor, 215 hp	Grain Drill	20 ft	\$4.69	\$7.26	\$1.98	\$1.47	\$15.40	_____
Topdress	Tractor, 215 hp	Fertilize Spreader	900#	\$1.65	\$2.03	\$1.13	\$0.84	\$5.66	_____
Fungicide	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	_____
Harvest	Combine	Grain Head	30 ft	\$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	_____
Plant	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	_____
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	_____
Harvest	Combine	Grain Head	30 ft	\$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>\$83.58</b>	<b>\$45.18</b>	<b>\$20.50</b>	<b>\$12.78</b>	<b>\$162.04</b>	_____

## **FOOTNOTES**

- 1) Soybean price was estimated using weighted average futures prices from November 2017 to July 2018 on December 30, 2016, adjusted by average monthly basis in Tennessee.
  - 2) Wheat price was estimated using weighted average futures prices from July 2017 to May 2018 on December 30, 2016, adjusted by average monthly basis in Tennessee.
  - 3) Spraying for stinkbugs may add \$2.50/acre per spraying, plus application expenses.
  - 4) Seed price includes technology fee.
  - 5) Additional seed treatment is to protect against Barley Yellow Dwarf Virus.
  - 6) Seed treatments, such as some nematicide treatments, are optional and costs vary depending on product used. Check with farm suppliers for rebates, discounts, and incentives for seed and chemicals. Substantial cost savings may be available.
  - 7) Several other versions of Glyphosate, the active ingredient in Roundup Original Max, are available. Check label for concentration rates and registration on Roundup Ready Soybeans.
  - 8) Due to prevalence of Glyphosate resistant weeds, if weeds are not controlled, hand chopping may be necessary.
  - 9) Cost may vary depending on fungicide used and application rate per acre.
  - 10) If using Liberty Link soybeans, replace Flexstar GT with Liberty herbicide.
  - 11) 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.
  - 12) 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.
  - 13) Crop insurance is an estimate and will vary by policy, county, and coverage election. The estimate provided is the average premiums paid per insured acre of soybeans and wheat in Tennessee for the previous production year as reported by USDA RMA's Summary of Business Report.
  - 14) Operating interest is assumed to be charged on half of all variable expenses.
  - 15) Estimated breakeven yields and prices assume that half of variable and total specified costs are incurred for each commodity. When estimating soybean breakeven, wheat yield/price are held constant at 60 bu/acre and \$4.21/bu. When estimating wheat breakeven, soybean yield and price are held constant at 40 bu/acre and \$10.04/bu.
- \* For Xtend soybeans seed prices may be \$6-15 per unit higher.
- \*\* Xtend soybeans require alternative chemical applications and should be used according to product specifications. Additional costs for applicator training may be required. Cost estimates are provided in the Preliminary 2017 Soybean, Roundup Ready 2 Xtend, No-Till, Non-Irrigated Budget.