



Black Soil Zone



Brown Soil Zone



Dark Brown Soil Zone



Specialty Crops

# CROP PLANNING GUIDE 2017





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Each year, Saskatchewan Agriculture makes available the Crop Planning Guide to help producers estimate the costs of producing various crops.

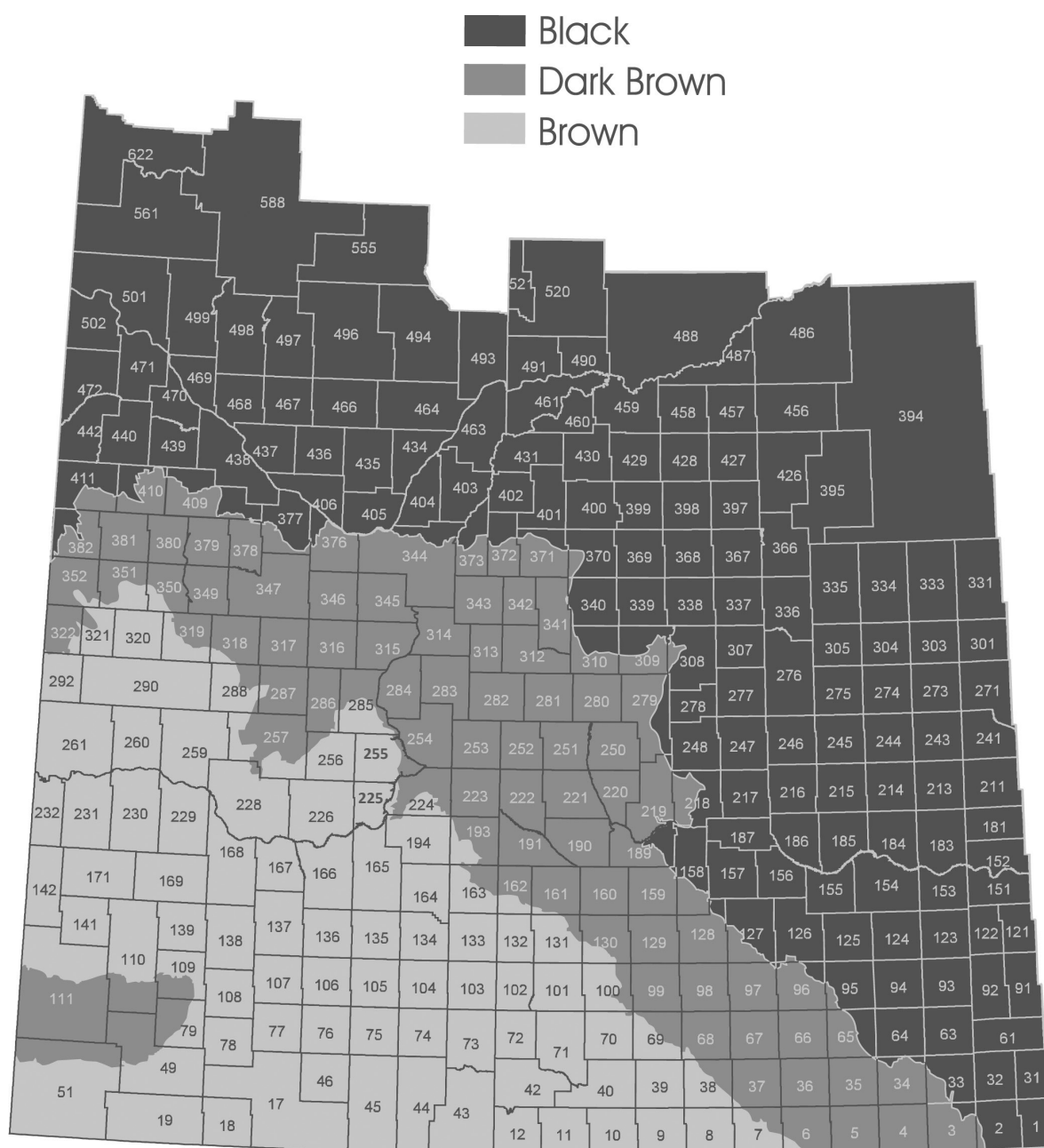
**This year's Guide differs from those of previous years. It targets the possible above average yields, using a higher input system linked to recommended agronomic practices including the use of certified seed, soil nutrient testing and pesticide selection. The latter is targeted at minimizing yield losses, while reducing the risk of the development of pest (insect, plant disease and weed) resistance.**

The Guide does not represent actual provincial average cost of production figures. Actual costs and yields on each farm will differ due to the age, amount and type of equipment, the selection of crop protection products and other inputs

used, agronomic practices, soil class and weather conditions. Furthermore, producers will use their own risk assessment and cost-benefit calculations in production decisions, which will determine the actual costs of production that will result.

A blank worksheet is provided at the end of this Guide for farm managers to use their own costs of production in their calculations and decision making. For those who would prefer, a downloadable spreadsheet is available on [www.saskatchewan.ca](http://www.saskatchewan.ca) by searching for "Crop Planner."

Farm managers may also wish to consult with the Ministry's Regional Specialists about the appropriate agronomic practices and cost assumptions that apply to their specific farm situation.



# GENERAL ASSUMPTIONS FOR ALL SOIL ZONES

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- 1. Crop prices** are predominantly based on the prices used in the Federal and Provincial Governments' internal December 2016 income and expense forecast. Crop pricing information can become outdated very quickly. Producers should continually adjust these figures as seeding approaches.
- 2. Estimated crop yields** are 20 per cent above the Saskatchewan Crop Insurance Corporation (SCIC) five-year averages of reported crop yields for the soil zones. Crop yields have been increased to reflect a higher level of management, improvements in plant genetics and higher input use.
- 3. Seeding rates** in the following Guide are expressed in pounds per acre, with the exception of corn, soybeans, hybrid fall rye and sunflowers. Seeding rate conversions to bushels per acre may be made by dividing the stated seeding rate by the appropriate weight per bushel for each crop.
- 4. Seeding costs** are for certified seed. Certified seed is assumed to be used for all crops sown.
- 5. Fertilizer:** Pricing on fertilizer was gathered at the end of November 2016. It is assumed that Urea: 46-0-0 is \$413 per tonne (\$0.407 per pound). Potash: 0-0-60 is \$372 per tonne (\$0.281 per pound). Phosphorus: 11-52-0 is assumed to be \$616 per tonne (\$0.451 per pound). Sulphur: 20.5-0-0-24 is assumed to be \$393 per tonne (\$0.395 per pound). The price of key nutrients will fluctuate throughout the year and producers are reminded to continually adjust these figures as seeding approaches. Producers are encouraged to soil test on a consistent basis to measure soil fertility and precisely align crop nutrient needs to production expectations.
- 6. Chemicals:** Chemical costs in the Guide reflect the potential costs of managing growing herbicide resistance on Saskatchewan farms. As a result, costs for this input have notably increased from previous years. The possible need for the control of various diseases is also included in the crop protection plan. Furthermore, insecticide costs are estimated based on the appropriate control measures for possible insect pressures in 2017. The chemical management assumptions in this guide are made to demonstrate the cost of a comprehensive crop protection plan. Producers should use their own risk assessment and cost benefit calculation for possible interventions in response to individual weed, insect and disease pressures. All chemical costs are set using Suggested Retail Price (SRP) costs, as well as label rate application. Producer pricing for chemicals may vary from the retailer SRP.
- 7. Machinery operating costs:** Fuel costs are based on estimated fuel consumptions for the various farming operations with diesel fuel priced at \$0.72/litre.

Machinery repair rates are based on the Custom Rate and Rental guide and are set at 2.6 per cent of the total machinery investment per acre.
- 8. Custom work and hired labour** is made up of costs for custom farm operations, such as custom trucking and custom spraying. Skilled labour is assumed to be \$21 per hour for 2017.
- 9. Crop insurance premiums** are the average of the premiums paid for the soil zone in 2016. The coverage level is assumed to be 70 per cent. The premiums described do not reflect actual producer costs given surcharges and discounts.
- 10. Utilities** are electricity, natural gas, water and telephone expenses.
- 11. Interest on variable expenses:** Operating interest is calculated on all variable expenses at 3.5 per cent for eight months and for 18 months for hybrid fall rye and winter wheat.
- 12. Building repair rates** are 2.2 per cent of building investment per acre.
- 13. Business overhead** is made up of legal, accounting, insurance, licenses and miscellaneous.
- 14. Machinery depreciation** is calculated on a straight-line basis at 10.7 per cent of machinery investment.
- 15. Building depreciation** is calculated at five per cent per year on a straight-line basis of building investment.
- 16. Machinery investments** is calculated at a 6.5 per cent return on investment. It is assumed that a Brown Soil Zone farm has \$256.71 per cultivated acre invested in machinery; a Dark Brown Soil Zone farm has \$293.68 per cultivated acre invested in machinery; and a Black Soil Zone farm has \$333.80 per cultivated acre invested in machinery.
- 17. Building investment cost** is calculated at a 2.6 per cent return on investment. It is assumed that a Brown Soil Zone farm has \$21 per cultivated acre invested in buildings; a Dark Brown Soil Zone farm has \$27 per cultivated acre invested in buildings; and a Black Soil Zone farms has \$36 per cultivated acre invested in buildings.
- 18. Land investment cost** is calculated at a 2.6 per cent return on investment of \$1,299 per cultivated acre in the Brown Soil Zone; \$1,464 per cultivated acre in the Dark Brown Soil Zone; and \$1,398 per cultivated acre in the Black Soil Zone.
- 19. Labour and management:** These budgets do not include an estimate for owner/operator labour and management.

# BROWN SOIL ZONE 2017

## 1. Seeding Rate and Certified Seed Price:

	Rate/ac.	Price (lb./plant/unit)
Spring Wheat	86 lb.	\$0.234
Durum Wheat	105 lb.	\$0.291
CPS Wheat	115 lb.	\$0.200
Winter Wheat	113 lb.	\$0.233
Malt Barley	106 lb.	\$0.251
Feed Barley	88 lb.	\$0.174
Hybrid Fall Rye	0.8 units	\$82.00
Oats	88 lb.	\$0.235
Corn	29,000 plants	\$0.00239
Large Green Lentils	91 lb.	\$0.833
Red Lentils	56 lb.	\$0.517
Edible Yellow Peas	138 lb.	\$0.240
Edible Green Peas	137 lb.	\$0.240
Soybean	1.4 units	\$55.861
Flax	34 lb.	\$0.422
Canola	5 lb.	\$13.13

## 2. Fertilizer:

	lb./ac.		
	N	P	S
Spring Wheat	68	27	0
Durum Wheat	79	31	0
CPS Wheat	91	36	0
Winter Wheat	60	29	0
Malt Barley	54	24	0
Feed Barley	66	29	0
Hybrid Fall Rye	74	31	0
Oats	38	16	0
Corn	95	43	0
Large Green Lentils	4	19	0
Red Lentils	5	22	0
Edible Yellow Peas	6	30	0
Edible Green Peas	6	30	0
Soybean	4	20	0
Flax	63	19	0
Canola	88	47	14

	Crops				
	Spring Wheat	Durum Wheat	CPS Wheat	Winter Wheat	Malt Barley
<b>REVENUE PER ACRE</b>					
Estimated Yield (bu./ac., lb./ac.) (A)	41.0	47.9	54.9	52.3	51.0
Estimated on Farm Market Price/bu., lb. (B)	6.01	6.69	4.78	3.96	5.44
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>	<b>246.41</b>	<b>320.45</b>	<b>262.42</b>	<b>207.11</b>	<b>277.44</b>
<b>EXPENSES PER ACRE</b>					
<b>Variable Expenses/acre</b>					
Seed	20.12	30.56	23.00	26.33	26.61
Fertilizer - Nitrogen	27.70	32.18	37.07	24.44	22.00
- Phosphorus	12.19	13.99	16.25	13.09	10.83
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00
Chemical - Herbicides	61.92	37.79	67.73	64.74	78.45
- Insecticides/Fungicides	26.65	26.65	26.65	0.00	19.18
- Seed Treatments/Inoculants	4.12	5.03	5.51	5.41	5.08
Machinery Operating - Fuel	9.78	9.78	9.78	9.78	9.78
- Repair	6.64	6.64	6.64	6.64	6.64
Custom Work and Hired Labour	18.25	18.25	18.25	18.25	16.75
Crop Insurance Premium	4.57	6.65	4.98	9.92	6.42
Utilities and Miscellaneous	3.19	3.19	3.19	3.19	3.19
Interest on Variable Expenses	4.54	4.44	5.10	9.52	4.77
<b>Total Variable Expenses (D)</b>	<b>199.67</b>	<b>195.14</b>	<b>224.14</b>	<b>191.31</b>	<b>209.69</b>
<b>Other Expenses/acre</b>					
Building Repair	0.46	0.46	0.46	0.46	0.46
Property Taxes	5.46	5.46	5.46	5.46	5.46
Business Overhead	1.97	1.97	1.97	1.97	1.97
Machinery Depreciation	27.47	27.47	27.47	27.47	27.47
Building Depreciation	1.05	1.05	1.05	1.05	1.05
Machinery Investment	16.69	16.69	16.69	16.69	16.69
Building Investment	0.55	0.55	0.55	0.55	0.55
Land Investment	34.29	34.29	34.29	34.29	34.29
<b>Total Other Expenses (E)</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>
Labour & Management (F)*					
<b>Total Expenses (D+E+F)=(G)</b>	<b>287.61</b>	<b>283.08</b>	<b>312.08</b>	<b>279.25</b>	<b>297.63</b>
<b>RETURN PER ACRE</b>					
<b>Return Over Variable Expenses (C-D)</b>	<b>46.74</b>	<b>125.31</b>	<b>38.28</b>	<b>15.80</b>	<b>67.75</b>
<b>Return Over Total Expenses (C-G)</b>	<b>-41.20</b>	<b>37.37</b>	<b>-49.66</b>	<b>-72.14</b>	<b>-20.19</b>
<b>BREAK-EVEN YIELD PER ACRE</b>					
<b>To Cover Variable Expenses</b>	<b>33.22</b>	<b>29.17</b>	<b>46.89</b>	<b>48.31</b>	<b>38.55</b>
<b>To Cover Total Expenses</b>	<b>47.86</b>	<b>42.31</b>	<b>65.29</b>	<b>70.52</b>	<b>54.71</b>
<b>BREAK-EVEN PRICE PER BU./LB.</b>					
<b>To Cover Variable Expenses</b>	<b>4.87</b>	<b>4.07</b>	<b>4.08</b>	<b>3.66</b>	<b>4.11</b>
<b>To Cover Total Expenses</b>	<b>7.01</b>	<b>5.91</b>	<b>5.68</b>	<b>5.34</b>	<b>5.84</b>

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.

# BROWN SOIL ZONE 2017 (CON'T)

REVENUE PER ACRE	Crops										
	Feed Barley	Hybrid Fall Rye	Oats	Corn**	Large Green Lentils	Red Lentils	Edible Yellow Peas	Edible Green Peas	Soybean	Flax	Canola
Estimated Yield (bu./ac.,lb./ac.) (A)	62.3	63.7	55.9	89.1	1745.4	1954.7	39.1	39.1	26.7	26.9	41.5
Estimated on Farm Market Price/bu.,lb. (B)	3.22	4.83	2.62	4.97	0.45	0.30	7.59	8.14	12.43	10.71	10.58
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>	<b>200.61</b>	<b>307.67</b>	<b>146.46</b>	<b>442.83</b>	<b>785.43</b>	<b>586.41</b>	<b>296.77</b>	<b>318.27</b>	<b>331.88</b>	<b>288.10</b>	<b>439.07</b>
<b>EXPENSES PER ACRE</b>											
<b>Variable Expenses/acre</b>											
Seed	15.31	65.60	20.68	69.31	75.80	28.95	33.12	32.88	78.21	14.35	65.64
Fertilizer - Nitrogen	26.89	30.14	15.48	38.70	1.63	1.91	2.57	2.57	1.71	25.66	35.85
- Phosphorus	13.09	13.99	7.22	19.41	8.57	9.93	13.54	13.54	9.03	8.57	21.21
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.53
Chemical - Herbicides	30.41	30.77	25.25	36.62	85.22	85.22	71.68	71.68	52.04	57.72	50.86
- Insecticides/Fungicides	0.00	0.00	0.00	0.00	37.43	37.43	25.43	25.43	0.00	0.00	6.05
- Seed Treatments/Inoculants	4.22	0.00	2.77	0.00	11.83	14.84	9.97	9.89	0.20	1.63	0.00
Machinery Operating - Fuel	9.78	9.78	9.78	10.93	10.93	10.93	10.93	10.93	10.93	9.78	10.35
- Repair	6.64	6.64	6.64	8.14	6.64	6.64	6.64	6.64	6.64	6.64	6.64
Custom Work and Hired Labour	16.75	16.75	16.75	44.99	17.75	17.75	16.25	16.25	18.25	16.75	17.00
Crop Insurance Premium	6.42	12.63	6.11	12.92	25.36	21.72	7.43	7.43	7.37	10.25	17.00
Utilities and Miscellaneous	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19	3.19
Interest on Variable Expenses	3.09	9.92	2.65	5.68	6.62	5.55	4.67	4.67	4.37	3.60	5.57
<b>Total Variable Expenses (D)</b>	<b>135.78</b>	<b>199.42</b>	<b>116.52</b>	<b>249.88</b>	<b>290.97</b>	<b>244.06</b>	<b>205.41</b>	<b>205.10</b>	<b>191.93</b>	<b>158.15</b>	<b>244.89</b>
<b>Other Expenses/acre</b>											
Building Repair	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
Property Taxes	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46	5.46
Business Overhead	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97	1.97
Machinery Depreciation	27.47	27.47	27.47	33.66	27.47	27.47	27.47	27.47	27.47	27.47	27.47
Building Depreciation	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.05
Machinery Investment	16.69	16.69	16.69	20.45	16.69	16.69	16.69	16.69	16.69	16.69	16.69
Building Investment	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
Land Investment	34.29	34.29	34.29	34.29	34.29	34.29	34.29	34.29	34.29	34.29	34.29
<b>Total Other Expenses (E)</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>97.89</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>	<b>87.94</b>
Labour & Management (F)*											
<b>Total Expenses (D+E+F)=(G)</b>	<b>223.72</b>	<b>287.36</b>	<b>204.46</b>	<b>347.77</b>	<b>378.91</b>	<b>332.00</b>	<b>293.35</b>	<b>293.04</b>	<b>279.87</b>	<b>246.08</b>	<b>332.83</b>
<b>RETURN PER ACRE</b>											
<b>Return Over Variable Expenses (C-D)</b>	<b>64.83</b>	<b>108.25</b>	<b>29.94</b>	<b>192.95</b>	<b>494.46</b>	<b>342.35</b>	<b>91.36</b>	<b>113.17</b>	<b>139.95</b>	<b>129.95</b>	<b>194.18</b>
<b>Return Over Total Expenses (C-G)</b>	<b>-23.11</b>	<b>20.31</b>	<b>-58.00</b>	<b>95.06</b>	<b>406.52</b>	<b>254.41</b>	<b>3.42</b>	<b>25.23</b>	<b>52.01</b>	<b>42.02</b>	<b>106.24</b>
<b>BREAK-EVEN YIELD PER ACRE</b>											
<b>To Cover Variable Expenses</b>	<b>42.17</b>	<b>41.29</b>	<b>44.47</b>	<b>50.28</b>	<b>646.61</b>	<b>813.52</b>	<b>27.06</b>	<b>25.20</b>	<b>15.44</b>	<b>14.77</b>	<b>23.15</b>
<b>To Cover Total Expenses</b>	<b>69.48</b>	<b>59.49</b>	<b>78.04</b>	<b>69.97</b>	<b>842.03</b>	<b>1106.65</b>	<b>38.65</b>	<b>36.00</b>	<b>22.52</b>	<b>22.98</b>	<b>31.46</b>
<b>BREAK-EVEN PRICE PER BU./LB.</b>											
<b>To Cover Variable Expenses</b>	<b>2.18</b>	<b>3.13</b>	<b>2.08</b>	<b>2.80</b>	<b>0.17</b>	<b>0.12</b>	<b>5.25</b>	<b>5.25</b>	<b>7.19</b>	<b>5.88</b>	<b>5.90</b>
<b>To Cover Total Expenses</b>	<b>3.59</b>	<b>4.51</b>	<b>3.66</b>	<b>3.90</b>	<b>0.22</b>	<b>0.17</b>	<b>7.50</b>	<b>7.49</b>	<b>10.48</b>	<b>9.15</b>	<b>8.02</b>

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.

\*\*As a greater investment in machinery is required for corn production, related per acre machinery costs (repairs, depreciation and investment costs) are also higher, compared to other crops.

# DARK BROWN SOIL ZONE 2017

## 1. Seeding Rate and Certified Seed Price:

	Rate/ac.	Price (lb./plant/unit)
Spring Wheat	95 lb.	\$0.234
Durum Wheat	116 lb.	\$0.291
CPS Wheat	126 lb.	\$0.200
Winter Wheat	126 lb.	\$0.233
Malt Barley	116 lb.	\$0.251
Feed Barley	97 lb.	\$0.174
Hybrid Fall Rye	0.8 units	\$82.00
Oats	110 lb.	\$0.235
Corn	29,000 plants	\$0.00239
Large Green Lentils	91 lb.	\$0.833
Red Lentils	56 lb.	\$0.517
Edible Yellow Peas	158 lb.	\$0.240
Edible Green Peas	156 lb.	\$0.240
Soybean	1.4 units	\$55.86
Flax	37 lb.	\$0.422
Canola	5 lb.	\$13.13

## 2. Fertilizer

	lb./ac.		
	N	P	S
Spring Wheat	79	31	0
Durum Wheat	88	35	0
CPS Wheat	104	41	0
Winter Wheat	63	31	0
Malt Barley	57	25	0
Feed Barley	69	30	0
Hybrid Fall Rye	83	35	0
Oats	59	24	0
Corn	84	38	0
Large Green Lentils	3	16	0
Red Lentils	4	20	0
Edible Yellow Peas	7	31	0
Edible Green Peas	7	31	0
Soybean	5	23	0
Flax	66	20	0
Canola	88	48	14

	Crops				
	Spring Wheat	Durum Wheat	CPS Wheat	Winter Wheat	Malt Barley
<b>REVENUE PER ACRE</b>					
Estimated Yield (bu./ac.,lb./ac.) (A)	47.7	53.4	62.9	54.9	53.4
Estimated on Farm Market Price/bu.,lb. (B)	6.01	6.69	4.78	3.96	5.44
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>	<b>286.68</b>	<b>357.25</b>	<b>300.66</b>	<b>217.40</b>	<b>290.50</b>
<b>EXPENSES PER ACRE</b>					
<b>Variable Expenses/acre</b>					
Seed	22.23	33.76	25.20	29.36	29.12
Fertilizer - Nitrogen	32.18	35.85	42.37	25.66	23.22
- Phosphorus	13.99	15.80	18.50	13.99	11.28
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00
Chemical - Herbicides	61.92	37.79	67.73	64.74	78.45
- Insecticides/Fungicides	35.90	26.65	35.90	9.25	31.11
- Seed Treatments/Inoculants	4.55	5.56	6.04	6.04	5.56
Machinery Operating - Fuel	12.22	12.22	12.22	12.22	12.22
- Repair	7.60	7.60	7.60	7.60	7.60
Custom Work and Hired Labour	18.00	18.00	18.00	18.00	17.00
Crop Insurance Premium	5.16	7.43	5.78	7.63	6.44
Utilities and Miscellaneous	4.19	4.19	4.19	4.19	4.19
Interest on Variable Expenses	5.07	4.77	5.67	10.41	5.27
<b>Total Variable Expenses (D)</b>	<b>223.01</b>	<b>209.60</b>	<b>249.19</b>	<b>209.09</b>	<b>231.45</b>
<b>Other Expenses/acre</b>					
Building Repair	0.59	0.59	0.59	0.59	0.59
Property Taxes	6.16	6.16	6.16	6.16	6.16
Business Overhead	3.01	3.01	3.01	3.01	3.01
Machinery Depreciation	31.42	31.42	31.42	31.42	31.42
Building Depreciation	1.35	1.35	1.35	1.35	1.35
Machinery Investment	19.09	19.09	19.09	19.09	19.09
Building Investment	0.71	0.71	0.71	0.71	0.71
Land Investment	38.65	38.65	38.65	38.65	38.65
<b>Total Other Expenses (E)</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>
Labour & Management (F)*					
<b>Total Expenses (D+E+F)=(G)</b>	<b>323.99</b>	<b>310.58</b>	<b>350.17</b>	<b>310.07</b>	<b>332.44</b>
<b>RETURN PER ACRE</b>					
<b>Return Over Variable Expenses (C-D)</b>	<b>63.67</b>	<b>147.65</b>	<b>51.47</b>	<b>8.31</b>	<b>59.05</b>
<b>Return Over Total Expenses (C-G)</b>	<b>-37.31</b>	<b>46.67</b>	<b>-49.51</b>	<b>-92.67</b>	<b>-41.94</b>
<b>BREAK-EVEN YIELD PER ACRE</b>					
<b>To Cover Variable Expenses</b>	<b>37.11</b>	<b>31.33</b>	<b>52.13</b>	<b>52.80</b>	<b>42.55</b>
<b>To Cover Total Expenses</b>	<b>53.91</b>	<b>46.42</b>	<b>73.26</b>	<b>78.30</b>	<b>61.11</b>
<b>BREAK-EVEN PRICE PER BU./LB.</b>					
<b>To Cover Variable Expenses</b>	<b>4.68</b>	<b>3.93</b>	<b>3.96</b>	<b>3.81</b>	<b>4.33</b>
<b>To Cover Total Expenses</b>	<b>6.79</b>	<b>5.82</b>	<b>5.57</b>	<b>5.65</b>	<b>6.23</b>

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.

# DARK BROWN SOIL ZONE 2017 (CON'T)

REVENUE PER ACRE	Crops										
	Feed Barley	Hybrid Fall Rye	Oats	Corn**	Large Green Lentils	Red Lentils	Edible Yellow Peas	Edible Green Peas	Soybean	Flax	Canola
Estimated Yield (bu./ac.,lb./ac.) (A)	65.2	70.9	87.1	78.4	1477.1	1756.0	41.0	41.0	30.7	28.1	41.6
Estimated on Farm Market Price/bu.,lb. (B)	3.22	4.83	2.62	4.97	0.45	0.30	7.59	8.14	12.43	10.71	10.58
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>	<b>209.94</b>	<b>342.45</b>	<b>228.20</b>	<b>389.65</b>	<b>664.70</b>	<b>526.80</b>	<b>311.19</b>	<b>333.74</b>	<b>381.60</b>	<b>300.95</b>	<b>440.13</b>
<b>EXPENSES PER ACRE</b>											
<b>Variable Expenses/acre</b>											
Seed	16.88	65.60	25.85	69.31	75.80	28.95	37.92	37.44	78.21	15.61	65.64
Fertilizer -Nitrogen	28.11	33.81	24.03	34.22	1.39	1.71	2.69	2.69	2.00	26.89	35.85
- Phosphorus	13.54	15.80	10.83	17.15	7.22	9.03	13.99	13.99	10.38	9.03	21.66
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.53
Chemical - Herbicides	30.41	30.77	25.25	36.62	85.22	85.22	71.68	71.68	52.04	57.72	50.86
- Insecticides/Fungicides	0.00	0.00	0.00	0.00	37.43	37.43	25.43	25.43	0.00	25.43	23.51
- Seed Treatments/Inoculants	4.65	0.00	5.27	0.00	11.83	14.84	11.41	11.27	0.20	1.77	0.00
Machinery Operating - Fuel	12.22	12.22	12.22	13.66	13.66	13.66	13.66	13.66	13.66	12.22	12.94
- Repair	7.60	7.60	7.60	9.09	7.60	7.60	7.60	7.60	7.60	7.60	7.60
Custom Work and Hired Labour	17.00	16.75	17.00	41.43	17.00	17.00	16.25	16.25	18.00	17.00	17.00
Crop Insurance Premium	6.44	9.63	6.90	12.92	29.22	22.00	6.91	6.91	7.37	9.17	13.92
Utilities and Miscellaneous	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19	4.19
Interest on Variable Expenses	3.28	10.28	3.24	5.55	6.76	5.62	4.93	4.91	4.51	4.34	6.02
<b>Total Variable Expenses (D)</b>	<b>144.31</b>	<b>206.64</b>	<b>142.38</b>	<b>244.14</b>	<b>297.31</b>	<b>247.24</b>	<b>216.66</b>	<b>216.02</b>	<b>198.15</b>	<b>190.97</b>	<b>264.71</b>
<b>Other Expenses/acre</b>											
Building Repair	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59	0.59
Property Taxes	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16	6.16
Business Overhead	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01	3.01
Machinery Depreciation	31.42	31.42	31.42	37.61	31.42	31.42	31.42	31.42	31.42	31.42	31.42
Building Depreciation	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
Machinery Investment	19.09	19.09	19.09	22.85	19.09	19.09	19.09	19.09	19.09	19.09	19.09
Building Investment	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71	0.71
Land Investment	38.65	38.65	38.65	38.65	38.65	38.65	38.65	38.65	38.65	38.65	38.65
<b>Total Other Expenses (E)</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>110.93</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>	<b>100.98</b>
Labour & Management (F)*											
<b>Total Expenses (D+E+F)=(G)</b>	<b>245.29</b>	<b>307.62</b>	<b>243.36</b>	<b>355.06</b>	<b>398.29</b>	<b>348.22</b>	<b>317.64</b>	<b>317.00</b>	<b>299.13</b>	<b>291.95</b>	<b>365.69</b>
<b>RETURN PER ACRE</b>											
<b>Return Over Variable Expenses (C-D)</b>	<b>65.63</b>	<b>135.81</b>	<b>85.82</b>	<b>145.51</b>	<b>367.39</b>	<b>279.56</b>	<b>94.53</b>	<b>117.72</b>	<b>183.45</b>	<b>109.98</b>	<b>175.42</b>
<b>Return Over Total Expenses (C-G)</b>	<b>-35.35</b>	<b>34.83</b>	<b>-15.16</b>	<b>34.59</b>	<b>266.41</b>	<b>178.58</b>	<b>-6.45</b>	<b>16.74</b>	<b>82.47</b>	<b>9.00</b>	<b>74.44</b>
<b>BREAK-EVEN YIELD PER ACRE</b>											
<b>To Cover Variable Expenses</b>	<b>44.82</b>	<b>42.78</b>	<b>54.34</b>	<b>49.12</b>	<b>660.68</b>	<b>824.14</b>	<b>28.55</b>	<b>26.54</b>	<b>15.94</b>	<b>17.83</b>	<b>25.02</b>
<b>To Cover Total Expenses</b>	<b>76.18</b>	<b>63.69</b>	<b>92.89</b>	<b>71.44</b>	<b>885.08</b>	<b>1160.74</b>	<b>41.85</b>	<b>38.94</b>	<b>24.06</b>	<b>27.26</b>	<b>34.56</b>
<b>BREAK-EVEN PRICE PER BU./LB.</b>											
<b>To Cover Variable Expenses</b>	<b>2.21</b>	<b>2.91</b>	<b>1.63</b>	<b>3.11</b>	<b>0.20</b>	<b>0.14</b>	<b>5.28</b>	<b>5.27</b>	<b>6.45</b>	<b>6.80</b>	<b>6.36</b>
<b>To Cover Total Expenses</b>	<b>3.76</b>	<b>4.34</b>	<b>2.79</b>	<b>4.53</b>	<b>0.27</b>	<b>0.20</b>	<b>7.75</b>	<b>7.73</b>	<b>9.74</b>	<b>10.39</b>	<b>8.79</b>

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.

\*\*As a greater investment in machinery is required for corn production, related per acre machinery costs (repairs, depreciation and investment costs) are also higher, compared to other crops.



# BLACK SOIL ZONE 2017

## 1. Seeding Rate and Certified Seed Price:

	Rate/ac.	Price (lb./plant/unit)
Spring Wheat	108 lb.	\$0.234
CPS Wheat	144 lb.	\$0.200
Winter Wheat	135 lb.	\$0.233
Malt Barley	132 lb.	\$0.251
Feed Barley	110 lb.	\$0.174
Hybrid Fall Rye	0.8 units	\$82.00
Oats	132 lb.	\$0.235
Corn	29,000 plants	\$0.00239
Large Green Lentils	91 lb.	\$0.833
Red Lentils	56 lb.	\$0.517
Edible Yellow Peas	178 lb.	\$0.240
Edible Green Peas	176 lb.	\$0.240
Soybean	1.4 units	\$55.86
Faba bean	181 lb.	\$0.217
Flax	39 lb.	\$0.422
Canola	5 lb.	\$13.13

## 2. Fertilizer:

	lb./ac.		
	N	P	S
Spring Wheat	89	35	0
CPS Wheat	114	45	0
Winter Wheat	61	30	0
Malt Barley	62	27	0
Feed Barley	76	33	0
Hybrid Fall Rye	87	37	0
Oats	78	32	0
Corn	111	50	0
Large Green Lentils	3	13	0
Red Lentils	4	18	0
Edible Yellow Peas	7	32	0
Edible Green Peas	7	32	0
Soybean	5	24	0
Faba bean	13	63	0
Flax	64	19	0
Canola	90	48	15

	Crops				
	Spring Wheat	CPS Wheat	Winter Wheat	Malt Barley	Feed Barley
<b>REVENUE PER ACRE</b>					
Estimated Yield (bu./ac.,lb./ac.) (A)	54.0	69.0	53.9	58.8	71.9
Estimated on Farm Market Price/bu.,lb. (B)	6.01	4.78	3.96	5.44	3.22
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>	<b>324.54</b>	<b>329.82</b>	<b>213.44</b>	<b>319.87</b>	<b>231.52</b>
<b>EXPENSES PER ACRE</b>					
<b>Variable Expenses/acre</b>					
Seed	25.27	28.80	31.46	33.13	19.14
Fertilizer - Nitrogen	36.26	46.44	24.85	25.26	30.96
- Phosphorus	15.80	20.31	13.54	12.19	14.89
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00
Chemical - Herbicides	61.92	67.73	64.74	78.45	30.41
- Insecticides/Fungicides	35.90	35.90	9.25	31.11	31.11
- Seed Treatments/Inoculants	5.17	6.90	6.47	6.32	5.27
Machinery Operating - Fuel	15.28	15.28	15.28	15.28	15.28
- Repair	8.63	8.63	8.63	8.63	8.63
Custom Work and Hired Labour	19.00	19.00	19.00	17.00	17.00
Crop Insurance Premium	6.48	8.50	11.51	5.64	5.64
Utilities and Miscellaneous	4.83	4.83	4.83	4.83	4.83
Interest on Variable Expenses	5.46	6.11	10.98	5.54	4.26
<b>Total Variable Expenses (D)</b>	<b>240.00</b>	<b>268.44</b>	<b>220.54</b>	<b>243.38</b>	<b>187.42</b>
<b>Other Expenses/acre</b>					
Building Repair	0.79	0.79	0.79	0.79	0.79
Property Taxes	6.91	6.91	6.91	6.91	6.91
Business Overhead	3.52	3.52	3.52	3.52	3.52
Machinery Depreciation	35.72	35.72	35.72	35.72	35.72
Building Depreciation	1.80	1.80	1.80	1.80	1.80
Machinery Investment	21.70	21.70	21.70	21.70	21.70
Building Investment	0.95	0.95	0.95	0.95	0.95
Land Investment	36.91	36.91	36.91	36.91	36.91
<b>Total Other Expenses (E)</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>
Labour & Management (F)*					
<b>Total Expenses (D+E+F)=(G)</b>	<b>348.29</b>	<b>376.73</b>	<b>328.83</b>	<b>351.68</b>	<b>295.72</b>
<b>RETURN PER ACRE</b>					
<b>Return Over Variable Expenses (C-D)</b>	<b>84.54</b>	<b>61.38</b>	<b>-7.10</b>	<b>76.49</b>	<b>44.10</b>
<b>Return Over Total Expenses (C-G)</b>	<b>-23.75</b>	<b>-46.91</b>	<b>-115.39</b>	<b>-31.81</b>	<b>-64.20</b>
<b>BREAK-EVEN YIELD PER ACRE</b>					
<b>To Cover Variable Expenses</b>	<b>39.93</b>	<b>56.16</b>	<b>55.69</b>	<b>44.74</b>	<b>58.21</b>
<b>To Cover Total Expenses</b>	<b>57.95</b>	<b>78.81</b>	<b>83.04</b>	<b>64.65</b>	<b>91.84</b>
<b>BREAK-EVEN PRICE PER BU./LB.</b>					
<b>To Cover Variable Expenses</b>	<b>4.44</b>	<b>3.89</b>	<b>4.09</b>	<b>4.14</b>	<b>2.61</b>
<b>To Cover Total Expenses</b>	<b>6.45</b>	<b>5.46</b>	<b>6.10</b>	<b>5.98</b>	<b>4.11</b>

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.



# BLACK SOIL ZONE 2017 (CON'T)

	Crops										
	Hybrid Fall Rye	Oats	Corn**	Large Green Lentils	Red Lentils	Edible Yellow Peas	Edible Green Peas	Soybean	Faba Bean	Flax	Canola
<b>REVENUE PER ACRE</b>											
Estimated Yield (bu./ac.,lb./ac.) (A)	74.5	115.4	104.0	1192.3	1586.2	42.1	42.1	31.8	2801.6	27.5	42.4
Estimated on Farm Market Price/bu.,lb. (B)	4.83	2.62	4.97	0.45	0.30	7.59	8.14	12.43	0.12	10.71	10.58
<b>Estimated Gross Revenue/ac. (AxB)=(C)</b>	<b>359.84</b>	<b>302.35</b>	<b>516.88</b>	<b>536.54</b>	<b>475.86</b>	<b>319.54</b>	<b>342.69</b>	<b>395.27</b>	<b>336.19</b>	<b>294.53</b>	<b>448.59</b>
<b>EXPENSES PER ACRE</b>											
<b>Variable Expenses/acre</b>											
Seed	65.60	31.02	69.31	75.80	28.95	42.72	42.24	78.21	39.28	16.46	65.64
Fertilizer - Nitrogen	35.44	31.77	45.22	1.14	1.55	2.77	2.77	2.08	5.42	26.07	36.66
- Phosphorus	16.70	14.44	22.57	5.87	8.12	14.44	14.44	10.83	28.43	8.57	21.66
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.74
Chemical - Herbicides	30.77	25.25	36.62	85.22	85.22	71.68	71.68	52.04	93.63	57.72	50.86
- Insecticides/Fungicides	0.00	9.25	0.00	37.43	37.43	25.43	25.43	0.00	56.92	25.43	23.51
- Seed Treatments/Inoculants	0.00	4.16	0.00	11.83	14.84	12.86	12.71	0.20	23.53	1.87	0.00
Machinery Operating - Fuel	15.28	15.28	17.08	17.08	17.08	17.08	17.08	17.08	15.82	15.28	16.18
- Repair	8.63	8.63	10.13	8.63	8.63	8.63	8.63	8.63	8.63	8.63	8.63
Custom Work and Hired Labour	17.00	17.00	54.21	18.75	18.75	16.25	16.25	19.00	15.75	17.00	17.00
Crop Insurance Premium	10.09	7.42	12.92	23.91	26.64	9.23	9.23	7.97	11.61	11.04	13.07
Utilities and Miscellaneous	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83	4.83
Interest on Variable Expenses	10.70	3.94	6.35	6.76	5.87	5.26	5.24	4.68	7.07	4.49	6.14
<b>Total Variable Expenses (D)</b>	<b>215.05</b>	<b>173.01</b>	<b>279.24</b>	<b>297.25</b>	<b>257.91</b>	<b>231.19</b>	<b>230.54</b>	<b>205.55</b>	<b>310.91</b>	<b>197.41</b>	<b>269.92</b>
<b>Other Expenses/acre</b>											
Building Repair	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79	0.79
Property Taxes	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91	6.91
Business Overhead	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52	3.52
Machinery Depreciation	35.72	35.72	41.90	35.72	35.72	35.72	35.72	35.72	35.72	35.72	35.72
Building Depreciation	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80	1.80
Machinery Investment	21.70	21.70	25.46	21.70	21.70	21.70	21.70	21.70	21.70	21.70	21.70
Building Investment	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Land Investment	36.91	36.91	36.91	36.91	36.91	36.91	36.91	36.91	36.91	36.91	36.91
<b>Total Other Expenses (E)</b>	<b>108.29</b>	<b>108.29</b>	<b>118.24</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>	<b>108.29</b>
Labour & Management (F)*											
<b>Total Expenses (D+E+F)=(G)</b>	<b>323.34</b>	<b>281.30</b>	<b>397.48</b>	<b>405.54</b>	<b>366.20</b>	<b>339.48</b>	<b>338.83</b>	<b>313.84</b>	<b>419.20</b>	<b>305.70</b>	<b>378.21</b>
<b>RETURN PER ACRE</b>											
<b>Return Over Variable Expenses (C-D)</b>	<b>144.79</b>	<b>129.34</b>	<b>237.64</b>	<b>239.29</b>	<b>217.95</b>	<b>88.35</b>	<b>112.15</b>	<b>189.72</b>	<b>25.28</b>	<b>97.12</b>	<b>178.67</b>
<b>Return Over Total Expenses (C-G)</b>	<b>36.50</b>	<b>21.05</b>	<b>119.40</b>	<b>131.00</b>	<b>109.66</b>	<b>-19.94</b>	<b>3.86</b>	<b>81.43</b>	<b>-83.01</b>	<b>-11.17</b>	<b>70.38</b>
<b>BREAK-EVEN YIELD PER ACRE</b>											
<b>To Cover Variable Expenses</b>	<b>44.52</b>	<b>66.03</b>	<b>56.18</b>	<b>660.56</b>	<b>859.71</b>	<b>30.46</b>	<b>28.32</b>	<b>16.54</b>	<b>2590.94</b>	<b>18.43</b>	<b>25.51</b>
<b>To Cover Total Expenses</b>	<b>66.94</b>	<b>107.37</b>	<b>79.97</b>	<b>901.20</b>	<b>1220.68</b>	<b>44.73</b>	<b>41.63</b>	<b>25.25</b>	<b>3493.37</b>	<b>28.54</b>	<b>35.75</b>
<b>BREAK-EVEN PRICE PER BU./LB.</b>											
<b>To Cover Variable Expenses</b>	<b>2.89</b>	<b>1.50</b>	<b>2.68</b>	<b>0.25</b>	<b>0.16</b>	<b>5.49</b>	<b>5.48</b>	<b>6.46</b>	<b>0.11</b>	<b>7.18</b>	<b>6.37</b>
<b>To Cover Total Expenses</b>	<b>4.34</b>	<b>2.44</b>	<b>3.82</b>	<b>0.34</b>	<b>0.23</b>	<b>8.06</b>	<b>8.05</b>	<b>9.87</b>	<b>0.15</b>	<b>11.12</b>	<b>8.92</b>

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses.

\*\*As a greater investment in machinery is required for corn production, related per acre machinery costs (repairs, depreciation and investment costs) are also higher, compared to other crops.

# SPECIALTY CROPS 2017

## 1. Seeding Rate and Certified Seed Price:

	Soil zone	Rate/ ac.	Price (lb./ plant)
Camelina	Brown	6 lb.	\$3.75
Canaryseed	Dk Brown	37 lb.	\$0.550
Caraway	Black	12 lb.	\$0.871
Coriander	Dk Brown	25 lb.	\$0.567
Desi Chickpea	Brown	93 lb.	\$0.370
Kabuli Chickpea (9 mm)	Brown	145 lb.	\$0.430
Kabuli Chickpea (7 mm)	Brown	109 lb.	\$0.370
Fenugreek	Brown	30 lb.	\$0.735
Yellow Mustard	Brown	10 lb.	\$4.000
Oriental Mustard	Brown	6 lb.	\$4.000
Brown Mustard	Brown	6 lb.	\$4.000
Pinto Bean	Dk Brown	99 lb.	\$0.750
Full Season Sunflower	Dk Brown	19,000 plants	\$0.001
Early Maturing Sunflower	Dk Brown	19,000 plants	\$0.002
Quinoa	Black	10 lb.	\$5.00

## 2. Fertilizer:

	lb./ac.			
	N	P	K	S
Camelina	60	30	0	20
Canaryseed	40	34	21	11
Caraway	28	22	13	0
Coriander	66	37	0	0
Desi Chickpea	6	31	0	0
Kabuli Chickpea (9 mm)	8	39	0	0
Kabuli Chickpea (7 mm)	7	33	0	0
Fenugreek	2.3	11	0	0
Yellow Mustard	34	19	0	6
Oriental Mustard	47	25	0	7
Brown Mustard	43	23	0	7
Pinto Bean	23	8	0	0
Full Season Sunflower	51	14	0	0
Early Maturing Sunflower	50	14	0	0
Quinoa	42	18	11	6

CROP	Camelina	Canaryseed	Caraway	Coriander
Type of Rotation	Re-crop	Re-crop	Re-crop	Re-crop
Rotation Years Required to Grow This Crop	1	1	3	1
Soil Zone	Brown	DkBrown	Black	DkBrown
REVENUE PER ACRE				
Estimated Yield (bu./ac.,lb./ac.) (A)	1294.10	1212.30	521.50	1266.50
Estimated On Farm Market Price/bus.,lb. (B)	0.25	0.24	1.00	0.45
Estimated Gross Revenue/ac. (AxB)=(C)	323.53	290.95	521.50	569.93
EXPENSES PER ACRE				
Variable Expenses/acre				
Seed	22.50	20.35	10.45	14.18
Fertilizer - Nitrogen	24.44	16.29	11.41	26.89
- Phosphorus	13.54	15.34	9.93	16.70
- Sulphur and Other	7.90	10.25	3.66	0.00
Chemical**- Herbicides	19.29	55.57	64.14	70.57
- Insecticides/Fungicides	0.00	6.05	0.00	34.99
- Seed Treatments/Inoculants	0.00	0.00	0.60	1.25
Machinery Operating - Fuel	15.10	14.38	28.76	14.38
- Repair	6.64	7.60	17.27	7.60
Custom Work and Hired Labour	16.25	18.00	15.75	15.75
Crop Insurance Premium	3.31	10.39	51.94	19.57
Utilities and Miscellaneous	3.19	4.19	4.83	4.19
Interest on Variable Expenses	3.08	4.15	5.09	5.26
Total Variable Expenses (D)	135.24	182.57	223.83	231.31
Other Expenses/acre				
Building Repair	0.46	0.59	1.57	0.59
Property Taxes	5.46	6.16	13.82	6.16
Business Overhead	1.97	3.01	7.05	3.01
Machinery Depreciation	27.47	31.42	71.43	31.42
Building Depreciation	1.05	1.35	3.60	1.35
Machinery Investment	16.69	19.09	43.39	19.09
Building Investment	0.55	0.71	1.90	0.71
Land Investment	34.29	38.65	73.81	38.65
Total Other Expenses (E)	87.94	100.98	216.58	100.98
Labour and Management (F)*				
Total Expenses (D+E+F)=(G)	223.18	283.55	440.41	332.30
RETURNS PER ACRE				
Return Over Variable Expenses (C-D)	188.29	108.38	297.67	338.61
Return Over Total Expenses (C-G)	100.35	7.40	81.09	237.63
BREAK-EVEN YIELD PER ACRE				
To Cover Variable Expenses	540.97	760.71	223.83	514.03
To Cover Total Expenses	892.73	1181.47	440.41	738.43
BREAK-EVEN PRICE PER BU./LB.				
To Cover Variable Expenses	0.10	0.15	0.43	0.18
To Cover Total Expenses	0.17	0.23	0.84	0.26

\*These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses. \*\* Only registered chemicals are included. \*\*\*Expenses shown are from two years (year 1 and 2) and revenue is from two years (year 2 and 3) of Caraway seed production. To obtain the average return per acre per year, the figures peracre year should be divided by 2. The expenses associated with the cover crop in year one are covered by the revenue from the cover crop.

# SPECIALTY CROPS 2017(CON'T)

CROP	#1 Desi Chickpea	#1-9mm Kabuli Chickpea	#1-7mm Kabuli Chickpea	Fenugreek	Yellow Mustard	Oriental Mustard
Type of Rotation	Re-crop	Re-crop	Re-crop	Re-crop	Re-crop	Re-crop
Rotation Years Required to Grow This Crop	1	1	1	1	1	1
Soil Zone	Brown	Brown	Brown	Brown	Brown	Brown
REVENUE PER ACRE						
Estimated Yield (bu./ac.,lb./ac.) (A)	1840.70	2454.50	2222.60	900.00	884.10	1235.60
Estimated On Farm Market Price/bus.,lb. (B)	0.32	0.36	0.30	0.28	0.30	0.28
Estimated Gross Revenue/ac. (AxB)=(C)	589.02	883.62	666.78	252.00	265.23	345.97
EXPENSES PER ACRE						
Variable Expenses/acre						
Seed	34.41	62.35	40.33	22.05	40.00	24.00
Fertilizer - Nitrogen	2.44	3.26	2.85	0.95	13.85	19.15
- Phosphorus	13.99	17.60	14.89	4.96	8.57	11.28
- Sulphur and Other	0.00	0.00	0.00	0.00	2.37	2.77
Chemical** - Herbicides	91.53	91.53	91.53	33.63	58.20	76.49
- Insecticides/Fungicides	33.65	36.22	34.44	0.00	0.00	6.05
- Seed Treatments/Inoculants	12.56	26.83	20.17	1.50	0.00	0.00
Machinery Operating - Fuel	15.82	15.82	15.82	12.22	15.10	15.10
- Repair	6.64	6.64	6.64	6.64	6.64	6.64
Custom Work and Hired Labour	15.75	15.75	15.75	15.75	16.25	16.25
Crop Insurance Premium	29.82	35.71	36.49	0.00	13.94	10.44
Utilities and Miscellaneous	3.19	3.19	3.19	3.19	3.19	3.19
Interest on Variable Expenses	6.05	7.33	6.57	2.35	4.15	4.45
Total Variable Expenses (D)	265.85	322.22	288.67	103.25	182.26	195.81
Other Expenses/acre						
Building Repair	0.46	0.46	0.46	0.46	0.46	0.46
Property Taxes	5.46	5.46	5.46	6.91	5.46	5.46
Business Overhead	1.97	1.97	1.97	1.97	1.97	1.97
Machinery Depreciation	27.47	27.47	27.47	27.47	27.47	27.47
Building Depreciation	1.05	1.05	1.05	1.05	1.05	1.05
Machinery Investment	16.69	16.69	16.69	16.69	16.69	16.69
Building Investment	0.55	0.55	0.55	0.55	0.55	0.55
Land Investment	34.29	34.29	34.29	34.29	34.29	34.29
Total Other Expenses (E)	87.94	87.94	87.94	89.39	87.94	87.94
Labour and Management (F)*						
Total Expenses (D+E+F)=(G)	353.78	410.16	376.61	192.64	270.20	283.75
RETURNS PER ACRE						
Return Over Variable Expenses (C-D)	323.18	561.40	378.11	148.75	82.97	150.16
Return Over Total Expenses (C-G)	235.24	473.46	290.17	59.36	-4.97	62.22
BREAK-EVEN YIELD PER ACRE						
To Cover Variable Expenses	830.77	895.06	962.22	368.74	607.54	699.31
To Cover Total Expenses	1105.58	1139.33	1255.35	687.99	900.67	1013.38
BREAK-EVEN PRICE PER BU./LB.						
To Cover Variable Expenses	0.14	0.13	0.13	0.11	0.21	0.16
To Cover Total Expenses	0.19	0.17	0.17	0.21	0.31	0.23

\* These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses. \*\* Only registered chemicals are included.



# SPECIALTY CROPS 2017 (CON'T)

CROP	Brown Mustard	Pinto Bean***	Sunflower Full Season	Sunflower Early Maturing	Quinoa
Type of Rotation	Re-crop	Re-crop	Re-crop	Re-crop	Re-crop
Rotation Years Required to Grow This Crop	1	1	1	1	1
Soil Zone	Brown	DkBrown	DkBrown	DkBrown	Black
REVENUE PER ACRE					
Estimated Yield (bu./ac.,lb./ac.) (A)	1110.70	1396.00	1917.70	1890.90	1000.00
Estimated On Farm Market Price/bus.,lb. (B)	0.28	0.40	0.25	0.25	0.63
Estimated Gross Revenue/ac. (AxB)=(C)	311.00	558.40	479.43	472.73	630.00
EXPENSES PER ACRE					
Variable Expenses/acre					
Seed	24.00	74.25	27.74	39.52	50.00
Fertilizer - Nitrogen	17.52	9.37	20.78	20.37	17.11
- Phosphorus	10.38	3.61	6.32	6.32	8.12
- Sulphur and Other	2.77	0.00	0.00	0.00	5.46
Chemical** - Herbicides	76.49	67.35	69.50	69.50	13.15
- Insecticides/Fungicides	6.05	12.38	0.00	0.00	0.00
- Seed Treatments/Inoculants	0.00	17.82	0.00	0.00	0.50
Machinery Operating - Fuel	15.10	13.66	15.82	15.82	12.22
- Repair	6.64	7.60	7.60	7.60	8.63
Custom Work and Hired Labour	16.25	15.75	16.75	16.75	15.75
Crop Insurance Premium	10.29	14.56	12.40	14.91	20.93
Utilities and Miscellaneous	3.19	4.19	4.19	4.19	4.83
Interest on Variable Expenses	4.39	5.60	4.22	4.54	3.65
Total Variable Expenses (D)	193.06	246.13	185.31	199.51	160.37
Other Expenses/acre					
Building Repair	0.46	0.59	0.59	0.59	0.79
Property Taxes	5.46	6.16	6.16	6.16	6.91
Business Overhead	1.97	3.01	3.01	3.01	3.52
Machinery Depreciation	27.47	31.42	31.42	31.42	35.72
Building Depreciation	1.05	1.35	1.35	1.35	1.80
Machinery Investment	16.69	19.09	19.09	19.09	21.70
Building Investment	0.55	0.71	0.71	0.71	0.95
Land Investment	34.29	38.65	38.65	38.65	36.91
Total Other Expenses (E)	87.94	100.98	100.98	100.98	108.29
Labour and Management (F)*					
Total Expenses (D+E+F)=(G)	281.00	347.11	286.29	300.50	268.66
RETURNS PER ACRE					
Return Over Variable Expenses (C-D)	117.93	312.27	294.12	273.21	469.63
Return Over Total Expenses (C-G)	29.99	211.29	193.14	172.23	361.34
BREAK-EVEN YIELD PER ACRE					
To Cover Variable Expenses	689.52	615.32	741.23	798.06	254.55
To Cover Total Expenses	1003.59	867.78	1145.15	1201.98	426.44
BREAK-EVEN PRICE PER BU./LB.					
To Cover Variable Expenses	0.17	0.18	0.10	0.11	0.16
To Cover Total Expenses	0.25	0.25	0.15	0.16	0.27

\* These budgets do not include an estimate for owner/operator labour and management. Farm managers need to determine their own actual labour and management costs and add it to total expenses. \*\* Only registered chemicals are included. \*\*\* Yield and costs are for Dryland Pinto Beans only.

# SPECIALTY CROP AGRONOMIC INFORMATION 2017

Crop	Type	lb./bu.	Adaptation	Seed Rate (lb./ac.)	Est. Seeds per lb.	Weed Pest & Disease Fertilizer Advice
<b>Camelina</b>	Annual oilseed	50	Well adapted to Saskatchewan conditions. It is highly tolerant of heat and drought, cold tolerant, matures early, very suitable for warm and dry regions.	6	300,000	Assure II herbicide (quizalofop-P ethyl) is registered under the User Requested Minor-Use Label Expansion Program. The most effective weed control is to seed early and seed into a clean field.
<b>Canaryseed</b>	Annual birdseed	50	Moderate moisture requirements, shallow rooted.	37	65,000	Several herbicides are registered. Potash fertilizer may be required.
<b>Caraway</b>	Biennial spice	35	Widely adapted, yields best under moderate moisture.	12	90,000	Several herbicides are registered.
<b>Desi Chickpea</b>	Annual pulse	60	Indeterminate crop, Brown and Dark Brown soils.	93	1,350 - 2,300	Several registered herbicides. Seed treatment and fungicide use recommended.
<b>Kabuli Chickpea 9mm</b>	Annual pulse	60	Indeterminate crop, Brown soils. Seed after soil reaches 10C at seeding depth.	145	1,100 - 2,000	Several registered herbicides. Seed treatment and fungicide use recommended.
<b>Kabuli Chickpea 7mm</b>	Annual pulse	60	Indeterminate crop, Brown soils. Seed after soil reaches 10C at seeding depth.	109	1,200 - 2,200	Several registered herbicides. Seed treatment and fungicide use recommended.
<b>Coriander</b>	Annual spice	22	Heat loving, late maturing.	25	50,000	Several herbicides are registered.
<b>Fenugreek</b>	Annual legume	60	Indeterminate crop, Brown and Dark Brown soil zones. Late maturing.	30	23,000 - 27,000	Odyssey, Select and Centurion herbicides are registered. Use clean fields.
<b>Yellow Mustard</b>	Annual oilseed	50	Better seed quality in drier areas.	10	100,000	Several registered herbicides.
<b>Brown Mustard</b>	Annual oilseed	50	More heat and drought tolerant than canola.	6	200,000	Several registered herbicides.
<b>Oriental Mustard</b>	Annual oilseed	50	More heat and drought tolerant than canola.	6	200,000	Several registered herbicides.
<b>Pinto Bean narrow row and dry land</b>	Annual pulse	60	Heat and moisture loving. Seed in late May. No frost tolerance.	99	1,100 - 1,600	Several registered herbicides. Seed treatment recommended.
<b>Full Season Sunflower</b>	Annual oilseed	30	High heat requirements, southeast Saskatchewan.	19000 plants	4,500 - 6,800	Trifluralin, Edge and Select are registered herbicides.
<b>Early Maturing Sunflower</b>	Annual oilseed	30	Moderate heat requirements. Brown, Dark Brown and thin Black soils.	19000 plants	11,000 - 13,500	Trifluralin, Edge and Select are registered herbicides.
<b>Quinoa</b>	Annual pseudo-cereal	50	Well adapted to areas near or north of the Yellowhead Highway. Sensitive to early frost, heat and drought during seed set.	10	100,000	No herbicides, fungicides or pesticides are registered. Potash and Sulphur may be required.

# SPECIALTY CROP AGRONOMIC INFORMATION 2017 (CON'T)

Crop	Crop Height (inches)	Days to Maturity	Harvest Method	Safe Storage Moisture	Crop Quality Factors	Markets
Camelina	35	85 - 100	Direct combine or swath and combine. Direct combining is recommended due to potential damage from wind and because shattering losses are minimal. If swathing is necessary, it should be done when 75 per cent of the crop has turned yellow.	< 8%	Orange/brown seeds borne in pear shaped capsules.	Industrial oil
Canaryseed	40 - 60	95 - 105	Swath and combine or direct combine. Shatter resistant.	< 13%	Avoid dehulling the seed.	Birdseed
Caraway	12 - 28	Biennial, matures in early August	Swath when approximately 75 per cent of seeds have turned brown.	< 10%	Brown with dark stripes. Avoid green seed.	Flavouring
Desi Chickpea	12 - 20	110 - 120	Direct combine or swath and combine.	< 14%	Sound whole seed, avoid seed damage.	Human food
Kabuli Chickpea 9mm	14 - 20	110 - 125	Direct combine or swath and combine.	< 14%	Sound whole seed, avoid seed damage. Light coloured seed coat, green seed.	Human food
Kabuli Chickpea 7mm	14 - 20	110 - 120	Direct combine or swath and combine.	< 14%	Sound whole seed, avoid seed damage. Light coloured seed coat, green seed.	Human food
Coriander	24 - 40	95 - 110	Direct combine or swath then immediately combine.	< 10%	Fully mature brown seeds, splits below five per cent.	Flavourings and perfumes
Fenugreek	12 - 24	115 - 130	Resists shattering, direct combine or swath and combine.	< 12%	Golden coloured seed.	Spice ingredient, pharmaceutical, health food
Yellow Mustard	30 - 40	90 - 93	Direct combine or swath and combine.	< 9.5%	Bright yellow seed.	Condiment
Brown Mustard	40 - 48	91 - 94	Swath and combine.	< 9.5%	Dark reddish brown seed.	Condiment
Oriental Mustard	40 - 48	91 - 93	Swath and combine.	< 9.5%	Bright golden seed.	Condiment
Pinto Bean narrow row and dry land	12 - 20	95 - 112	Pick-up reel and floating cutter bar required. Swathing preferred. Swath when tough.	14 - 16%	Sound whole seed, avoid seed damage.	Human food
Full Season Sunflower	60	110 - 125	Direct combine with sunflower attachment.	< 10%	Premiums for high oil content.	Edible oil and confection
Early Maturing Sunflower	24 - 35	99 - 103	Swath and combine or direct combine with standard equipment.	< 10%	Premiums for high oil content.	Edible oil and birdseed
Quinoa	33-40	90-125	Direct combine or swath and combine. Sprouts easily in the swath.	< 10%	Cannot be planted following wheat or canola	Human Food. All production is contracted



CROP PRODUCTION COSTS (\$/ACRE) MY FARM	USE THIS WORKSHEET TO ADJUST THE CROP BUDGET TO YOUR FARM COSTS			
<b>REVENUE PER ACRE</b>				
A Estimated yield (bu./ac.; lb./ac.)				
B Estimated on-farm market price per bushel or per pound				
<b>C Estimated Gross Revenue per acre</b>				
<b>EXPENSES PER ACRE</b>				
Variable Expenses/acre				
Seed				
Fertilizer - Nitrogen				
- Phosphorus				
- Sulphur and Other				
Chemical - Herbicides				
- Insecticides/Fungicides				
- Seed Treatments/Inoculants				
Machinery Operating - Fuel				
- Repair				
Custom Work and Hired Labour				
Crop Insurance Premium				
Utilities and Miscellaneous				
Interest on Variable Expenses				
<b>D Total Variable Expenses</b>				
<b>Other Expenses/acre</b>				
Building Repair				
Property Taxes				
Business Overhead				
Machinery Depreciation				
Building Depreciation				
Machinery Investment				
Building Investment				
Land Investment				
<b>E Total Other Expenses</b>				
F Labour and Management				
<b>G Total Expenses (D+E+F)</b>				
<b>RETURNS PER ACRE</b>				
Return Over Variable Expenses (C-D)				
Return Over Total Expenses (C-G)				
<b>BREAK-EVEN YIELD PER ACRE (lb./ac. or bu./ac.)</b>				
To Cover Variable Expenses				
To Cover Total Expenses				
<b>BREAK-EVEN PRICE PER BU./LB.</b>				
To Cover Variable Expenses				
To Cover Total Expenses				

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