



Brown Soil Zone



Dark Brown Soil Zone



Black Soil Zone



Specialty Crops

CROP PLANNING GUIDE 2018



CROP PLANNING GUIDE 2018

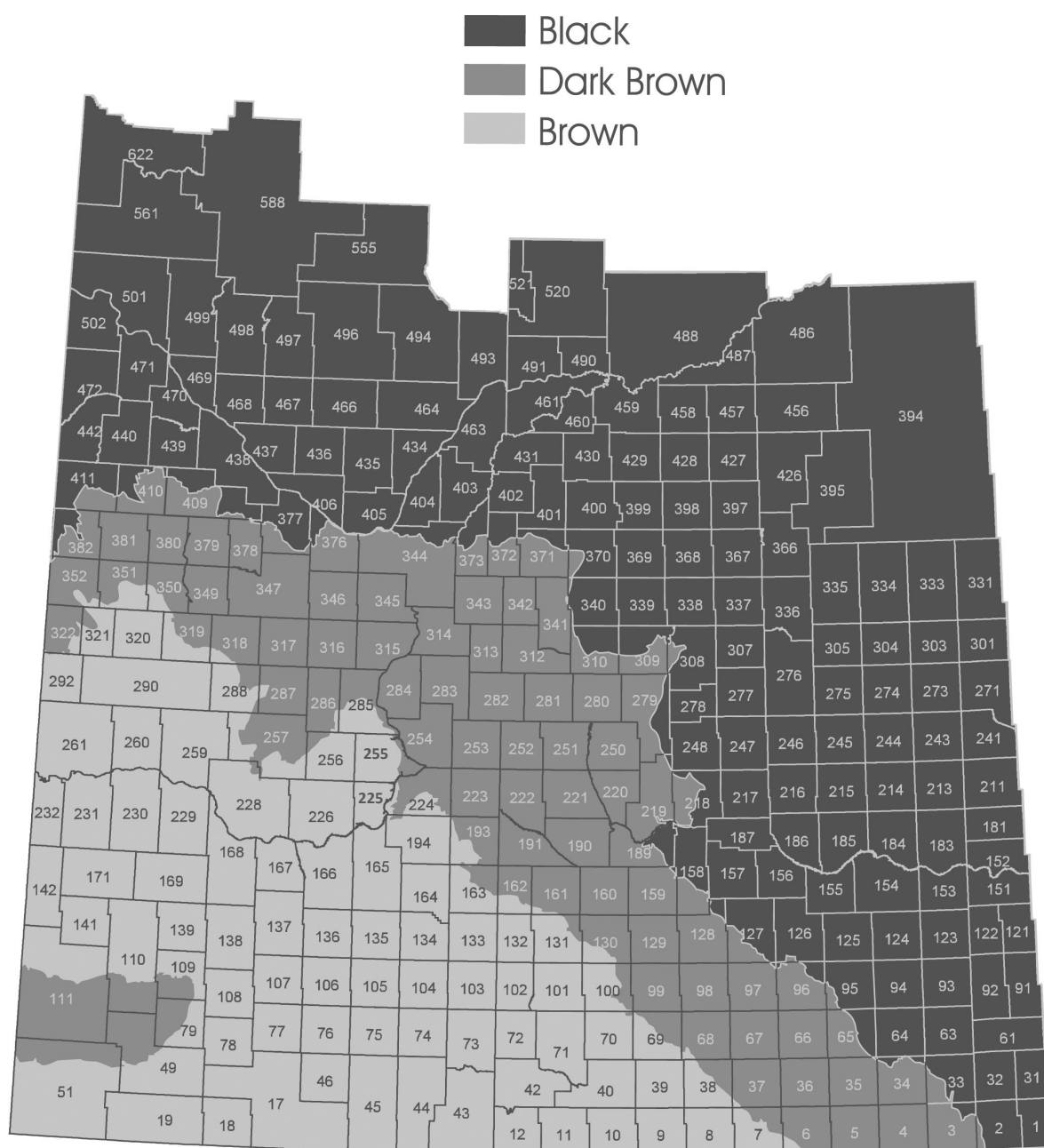
Each year, Saskatchewan Agriculture makes available the Crop Planning Guide to help producers estimate the costs of producing various crops.

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.

Farm managers can use the blank worksheet at the end of this guide for farm managers to input their own costs of production in their calculations and decision making. Crop pricing information changes continuously, thus producers should adjust those figures accordingly to reflect their own expectations. A downloadable spreadsheet is also available on

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

- 1. Crop prices** are based in part on the prices used in the November Farm Income Forecast. Crop pricing information can become outdated very quickly, so producers should continually adjust these figures as seeding approaches.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 for the soil zone. Crop yields have been increased to reflect a higher level of management, improvements in plant genetics and higher input utilization.
- 3. Seeding rates** in the following guide are expressed in pounds per acre, with the exception of corn, soybeans, sunflowers and hybrid fall rye. These crops seeding costs are based on recommended plant population and units required to achieve those. 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:** The Saskatchewan Ministry of Agriculture encourages producers to soil test on a consistent basis to measure soil fertility and precisely gauge crop nutrient needs to production expectations. The price of key nutrients will fluctuate throughout the year and producers are reminded to continually adjust these figures as seeding approaches.
- 6. Chemicals:** Herbicide costs used in this guide reflect the practice of herbicide layering for prevention or management of herbicide-resistant populations. This practice may involve the use of two or more modes of action for control of some weeds in that crop. This guide assumes that commonly encountered insects and crop diseases are controlled through the use of the appropriate pesticides for the crop and pest combinations as a standard practice. The assumptions in this guide are only to demonstrate how the guide can be used to cost a crop protection plan. Producers must use their own costs based on the individual weed, insect and disease pressures. Chemical costs are set using Suggested Retail Price (SRP) costs as well as full rate application. Prices can vary significantly from SRP rates.
- 7. Machinery operating costs:** Fuel costs are based on estimated fuel consumptions for the various farming operations with diesel fuel priced at \$0.844/litre. Machinery repair rates are based on the Custom Rate and Rental guide and are set at 2.6 per cent of the yearly machinery investment cost.
- 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 \$22 per hour for 2018.
- 9. Crop insurance premiums** are the average of the premiums paid for the soil zone in 2018. 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 3.8 per cent for eight months and for 18 months for hybrid fall rye and winter wheat.
- 12. Building repair rates** are assumed to be 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 yearly machinery investment.
- 15. Building depreciation** is calculated at five per cent per year on a straight-line basis of building investment.
- 16. Machinery investment** is calculated at a 7.5 per cent return on investment. It is assumed that a Brown Soil Zone farm has \$321.50 per cultivated acre invested in machinery; a Dark Brown Soil Zone farm has \$362.54 per cultivated acre invested in machinery; and a Black Soil Zone farm has \$410.31 per cultivated acre invested in machinery. These calculations are based on data provided by Statistics Canada.
- 17. Building investment cost** is calculated at a three 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 \$28 per cultivated acre invested in buildings; and a Black Soil Zone farm has \$38 per cultivated acre invested in buildings. These calculations are based on data provided by Statistics Canada.
- 18. Land investment cost** is calculated at a 3.06 per cent return on investment of \$1,213.71 per cultivated acre in the Brown Soil Zone; \$1,407.56 per cultivated acre in the Dark Brown Soil Zone; and \$1,575.26 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. Typical management rates for business of this type are seven per cent of Gross Revenue.

BROWN SOIL ZONE 2018

1. Seeding Rate and Certified Seed Price:

	Rate/ac.	Price (lb./plant/unit)
Spring Wheat	86 lb.	\$0.217
Durum Wheat	105 lb.	\$0.250
CPS Wheat	115 lb.	\$0.223
Winter Wheat	113 lb.	\$0.200
Malt Barley	106 lb.	\$0.219
Feed Barley	88 lb.	\$0.172
Oats	88 lb.	\$0.213
Corn	29,000 plants	\$0.003
Large Green Lentils	91 lb.	\$0.550
Red Lentils	56 lb.	\$0.380
Edible Yellow Peas	138 lb.	\$0.225
Edible Green Peas	137 lb.	\$0.225
Soybean	1.4 units	\$58.85
Flax	34 lb.	\$0.411
Hybrid Fall Rye	0.8 units	\$81.50
Canola	5 lb.	\$12.519

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
Oats	38	16	0
Hybrid Fall Rye	74	31	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
REVENUE PER ACRE					
Estimated Yield (bu./ac., lb./ac.) (A)	44.3	52.1	62.9	58.1	56.8
Estimated on Farm Market Price/bu., lb. (B)	6.69	6.96	4.41	4.59	4.68
Estimated Gross Revenue/ac. (AxB)=(C)	296.37	362.62	277.39	266.68	265.82
EXPENSES PER ACRE					
Variable Expenses/acre					
Seed	18.66	26.25	25.65	22.60	23.21
Fertilizer - Nitrogen	31.19	36.23	41.74	27.52	24.77
- Phosphorus	12.69	14.57	16.92	13.63	11.28
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00
Chemical - Herbicides	59.11	44.96	72.40	62.93	72.40
- Insecticides/Fungicides	28.61	28.61	28.61	0.00	20.58
- Seed Treatments/Inoculants	5.03	6.15	6.73	6.61	6.20
Machinery Operating - Fuel	18.39	19.45	19.45	18.38	18.34
- Repair	8.32	8.32	8.32	8.32	8.32
Custom Work and Hired Labour	19.00	19.00	19.00	19.00	17.50
Crop Insurance Premium	4.68	6.49	4.89	9.92	6.17
Utilities and Miscellaneous	3.28	3.28	3.28	3.28	3.28
Interest on Variable Expenses	5.22	5.33	6.17	10.81	5.30
Total Variable Expenses (D)	214.18	218.64	253.15	203.00	217.34
Other Expenses/acre					
Building Repair	0.46	0.46	0.46	0.46	0.46
Property Taxes	3.76	3.76	3.76	3.76	3.76
Business Overhead	1.88	1.88	1.88	1.88	1.88
Machinery Depreciation	34.40	34.40	34.40	34.40	34.40
Building Depreciation	1.05	1.05	1.05	1.05	1.05
Machinery Investment	24.11	24.11	24.11	24.11	24.11
Building Investment	0.64	0.64	0.64	0.64	0.64
Land Investment	37.18	37.18	37.18	37.18	37.18
Total Other Expenses (E)	103.49	103.49	103.49	103.49	103.49
Labour & Management (F)*					
Total Expenses (D+E+F)=(G)	317.67	322.13	356.64	306.49	320.84
RETURN PER ACRE					
Return Over Variable Expenses (C-D)	82.19	143.98	24.24	63.68	48.48
Return Over Total Expenses (C-G)	- 21.30	40.49	- 79.25	- 39.81	- 55.02
BREAK-EVEN YIELD PER ACRE					
To Cover Variable Expenses	32.01	31.41	57.40	44.23	46.44
To Cover Total Expenses	47.48	46.28	80.87	66.77	68.55
BREAK-EVEN PRICE PER BU./LB.					
To Cover Variable Expenses	4.83	4.20	4.02	3.49	3.83
To Cover Total Expenses	7.17	6.18	5.67	5.28	5.65

*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 2018 (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)	69.4	63.7	65.5	90.1	1810.0	2039.4	42.9	42.9	31.0	29.2	45.3
Estimated on Farm Market Price/bu.,lb. (B)	3.70	3.94	2.93	4.52	0.29	0.17	7.00	8.00	11.48	12.50	11.36
Estimated Gross Revenue/ac. (AxB)=(C)	256.78	250.98	191.92	407.25	524.90	346.70	300.30	343.20	355.88	365.00	514.61
EXPENSES PER ACRE											
Variable Expenses/acre											
Seed	15.14	65.20	18.74	87.00	50.05	21.28	31.05	30.83	82.39	13.97	62.60
Fertilizer - Nitrogen	30.27	33.94	17.43	43.57	1.83	2.16	2.89	2.89	1.93	28.90	40.36
- Phosphorus	13.63	14.57	7.52	20.22	8.93	10.34	14.10	14.10	9.40	8.93	22.10
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.43
Chemical - Herbicides	28.99	34.62	22.95	35.76	86.21	86.21	74.10	74.10	55.59	55.10	46.18
- Insecticides/Fungicides	0.00	0.00	0.00	0.00	58.27	58.27	27.60	27.60	0.00	0.00	6.19
- Seed Treatments/Inoculants	5.15	0.00	2.63	0.00	13.88	13.88	16.34	16.34	14.00	1.62	0.00
Machinery Operating - Fuel	19.26	16.96	19.04	21.14	15.92	16.70	14.96	14.96	15.86	16.68	17.47
- Repair	8.32	8.32	8.32	9.81	8.32	8.32	8.32	8.32	8.32	8.32	8.32
Custom Work and Hired Labour	17.50	17.50	17.50	45.74	18.50	18.50	17.00	17.00	19.00	17.50	17.75
Crop Insurance Premium	6.17	8.70	7.35	11.93	25.86	16.10	7.00	7.00	7.67	9.42	16.83
Utilities and Miscellaneous	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28	3.28
Interest on Variable Expenses	3.69	11.42	3.12	6.96	7.28	6.38	5.42	5.41	5.44	4.09	6.16
Total Variable Expenses (D)	151.40	214.51	127.88	285.41	298.33	261.42	222.06	221.82	222.88	167.80	252.66
Other Expenses/acre											
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	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76	3.76
Business Overhead	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88	1.88
Machinery Depreciation	34.40	34.40	34.40	40.59	34.40	34.40	34.40	34.40	34.40	34.40	34.40
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	24.11	24.11	24.11	28.45	24.11	24.11	24.11	24.11	24.11	24.11	24.11
Building Investment	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64	0.64
Land Investment	37.18	37.18	37.18	37.18	37.18	37.18	37.18	37.18	37.18	37.18	37.18
Total Other Expenses (E)	103.49	103.49	103.49	114.02	103.49	103.49	103.49	103.49	103.49	103.49	103.49
Labour & Management (F)*											
Total Expenses (D+E+F)=(G)	254.89	318.00	231.38	399.43	401.83	364.91	325.55	325.32	326.37	271.29	356.16
RETURN PER ACRE											
Return Over Variable Expenses (C-D)	105.38	36.47	64.04	121.84	226.57	85.28	78.24	121.38	133.00	197.20	261.95
Return Over Total Expenses (C-G)	1.89	- 67.02	- 39.46	7.82	123.07	- 18.21	- 25.25	17.88	29.51	93.71	158.45
BREAK-EVEN YIELD PER ACRE											
To Cover Variable Expenses	40.92	54.44	43.65	63.14	1028.74	1537.74	31.72	27.73	19.41	13.42	22.24
To Cover Total Expenses	68.89	80.71	78.97	88.37	1385.61	2146.52	46.51	40.66	28.43	21.70	31.35
BREAK-EVEN PRICE PER BU./LB.											
To Cover Variable Expenses	2.18	3.37	1.95	3.17	0.16	0.13	5.18	5.17	7.19	5.75	5.58
To Cover Total Expenses	3.67	4.99	3.53	4.43	0.22	0.18	7.59	7.58	10.53	9.29	7.86

*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 2018

1. Seeding Rate and Certified Seed Price:

	Rate/ac.	Price (lb./plant/unit)
Spring Wheat	95 lb.	\$0.217
Durum Wheat	116 lb.	\$0.250
CPS Wheat	126 lb.	\$0.223
Winter Wheat	126 lb.	\$0.200
Malt Barley	116 lb.	\$0.219
Feed Barley	97 lb.	\$0.172
Oats	110 lb.	\$0.213
Corn	29,000 plants	\$0.003
Large Green Lentils	91 lb.	\$0.550
Red Lentils	56 lb.	\$0.380
Edible Yellow Peas	158 lb.	\$0.225
Edible Green Peas	156 lb.	\$0.225
Soybean	1.4 units	\$58.85
Flax	37 lb.	\$0.411
Hybrid Fall Rye	0.8 units	\$81.50
Canola	5 lb.	\$12.519

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
Oats	59	24	0
Hybrid Fall Rye	83	35	0
Corn	84	38	0
Large Green Lentils	3	16	0
Red Lentils	4	20	0
Yellow Peas	7	31	0
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
REVENUE PER ACRE					
Estimated Yield (bu./ac.,lb./ac.) (A)	51.1	60.3	65.6	62.9	59.7
Estimated on Farm Market Price/bu.,lb. (B)	6.69	6.96	4.41	4.59	4.68
Estimated Gross Revenue/ac. (AxB)=(C)	341.86	419.69	289.30	288.71	279.40
EXPENSES PER ACRE					
Variable Expenses/acre					
Seed	20.62	29.00	28.10	25.20	25.40
Fertilizer - Nitrogen	36.23	40.36	47.70	28.90	26.14
- Phosphorus	14.57	16.45	19.28	14.57	11.75
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00
Chemical - Herbicides	59.11	44.96	72.40	62.93	72.40
- Insecticides/Fungicides	38.66	28.61	38.66	10.05	36.02
- Seed Treatments/Inoculants	5.56	6.79	7.37	7.37	6.79
Machinery Operating - Fuel	19.35	20.48	20.48	19.34	19.30
- Repair	9.38	9.38	9.38	9.38	9.38
Custom Work and Hired Labour	18.75	18.75	18.75	18.75	17.75
Crop Insurance Premium	5.40	8.07	5.62	7.57	6.12
Utilities and Miscellaneous	4.31	4.31	4.31	4.31	4.31
Interest on Variable Expenses	5.80	5.68	6.80	11.72	5.88
Total Variable Expenses (D)	237.74	232.83	278.84	220.09	241.25
Other Expenses/acre					
Building Repair	0.62	0.62	0.62	0.62	0.62
Property Taxes	4.92	4.92	4.92	4.92	4.92
Business Overhead	2.87	2.87	2.87	2.87	2.87
Machinery Depreciation	38.79	38.79	38.79	38.79	38.79
Building Depreciation	1.40	1.40	1.40	1.40	1.40
Machinery Investment	27.19	27.19	27.19	27.19	27.19
Building Investment	0.86	0.86	0.86	0.86	0.86
Land Investment	43.12	43.12	43.12	43.12	43.12
Total Other Expenses (E)	119.76	119.76	119.76	119.76	119.76
Labour & Management (F)*					
Total Expenses (D+E+F)=(G)	357.50	352.59	398.60	339.85	361.01
RETURN PER ACRE					
Return Over Variable Expenses (C-D)	104.12	186.86	10.46	68.62	38.15
Return Over Total Expenses (C-G)	- 15.64	67.10	- 109.30	- 51.14	- 81.61
BREAK-EVEN YIELD PER ACRE					
To Cover Variable Expenses	35.54	33.45	63.23	47.95	51.55
To Cover Total Expenses	53.44	50.66	90.39	74.04	77.14
BREAK-EVEN PRICE PER BU./LB.					
To Cover Variable Expenses	4.65	3.86	4.25	3.50	4.04
To Cover Total Expenses	7.00	5.85	6.08	5.40	6.05

*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 2018 (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)	72.9	70.9	96.6	80.6	1777.8	1971.9	45.7	45.7	23.5	30.9	45.2
Estimated on Farm Market Price/bu.,lb. (B)	3.70	3.94	2.93	4.52	0.29	0.17	7.00	8.00	11.48	12.50	11.36
Estimated Gross Revenue/ac. (AxB)=(C)	269.73	279.35	283.04	364.31	515.56	335.22	319.90	365.60	269.78	386.25	513.47
EXPENSES PER ACRE											
Variable Expenses/acre											
Seed	16.68	65.20	23.43	87.00	50.05	21.28	35.55	35.10	82.39	15.21	62.60
Fertilizer -Nitrogen	31.65	38.07	27.06	38.53	1.56	1.93	3.03	3.03	2.25	30.27	40.36
- Phosphorus	14.10	16.45	11.28	17.86	7.52	9.40	14.57	14.57	10.81	9.40	22.57
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.43
Chemical - Herbicides	28.99	34.62	22.95	35.76	86.21	86.21	74.10	74.10	55.59	55.10	46.18
- Insecticides/Fungicides	0.00	0.00	0.00	0.00	58.27	58.27	27.60	27.60	0.00	27.60	20.82
- Seed Treatments/Inoculants	5.68	0.00	3.29	0.00	13.88	13.88	16.34	16.34	14.00	1.76	0.00
Machinery Operating - Fuel	20.27	17.85	20.05	22.26	16.75	17.59	15.75	15.75	16.69	17.55	18.39
- Repair	9.38	9.38	9.38	10.87	9.38	9.38	9.38	9.38	9.38	9.38	9.38
Custom Work and Hired Labour	17.75	17.50	17.75	42.18	17.75	17.75	17.00	17.00	18.75	17.75	17.75
Crop Insurance Premium	6.12	6.67	8.43	11.93	30.98	17.37	6.73	6.73	7.67	8.76	13.14
Utilities and Miscellaneous	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31	4.31
Interest on Variable Expenses	3.87	11.82	3.70	6.77	7.42	6.43	5.61	5.60	5.55	4.93	6.52
Total Variable Expenses (D)	158.80	221.87	151.62	277.46	304.08	263.79	229.96	229.50	227.39	202.01	267.43
Other Expenses/acre											
Building Repair	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Property Taxes	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92	4.92
Business Overhead	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87	2.87
Machinery Depreciation	38.79	38.79	38.79	44.98	38.79	38.79	38.79	38.79	38.79	38.79	38.79
Building Depreciation	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
Machinery Investment	27.19	27.19	27.19	31.53	27.19	27.19	27.19	27.19	27.19	27.19	27.19
Building Investment	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Land Investment	43.12	43.12	43.12	43.12	43.12	43.12	43.12	43.12	43.12	43.12	43.12
Total Other Expenses (E)	119.76	119.76	119.76	130.29	119.76	119.76	119.76	119.76	119.76	119.76	119.76
Labour & Management (F)*											
Total Expenses (D+E+F)=(G)	278.56	341.63	271.39	407.75	423.84	383.55	349.72	349.26	347.15	321.77	387.19
RETURN PER ACRE											
Return Over Variable Expenses (C-D)	110.93	57.48	131.42	86.85	211.48	71.43	89.94	136.10	42.39	184.24	246.04
Return Over Total Expenses (C-G)	- 8.83	- 62.28	11.65	- 43.44	91.72	- 48.33	- 29.82	16.34	- 77.37	64.48	126.28
BREAK-EVEN YIELD PER ACRE											
To Cover Variable Expenses	42.92	56.31	51.75	61.38	1048.55	1551.70	32.85	28.69	19.81	16.16	23.54
To Cover Total Expenses	75.29	86.71	92.62	90.21	1461.52	2256.17	49.96	43.66	30.24	25.74	34.08
BREAK-EVEN PRICE PER BU./LB.											
To Cover Variable Expenses	2.18	3.13	1.57	3.44	0.17	0.13	5.03	5.02	9.68	6.54	5.92
To Cover Total Expenses	3.82	4.82	2.81	5.06	0.24	0.19	7.65	7.64	14.77	10.41	8.57

*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 2018

1. Seeding Rate and Certified Seed Price:

	Rate/ac.	Price (lb./plant/unit)
Spring Wheat	108 lb.	\$0.217
CPS Wheat	144 lb.	\$0.223
Winter Wheat	135 lb.	\$0.200
Malt Barley	132 lb.	\$0.219
Feed Barley	110 lb.	\$0.172
Oats	132 lb.	\$0.213
Corn	29,000 plants	\$0.003
Large Green Lentils	91 lb.	\$0.550
Red Lentils	56 lb.	\$0.380
Edible Yellow Peas	178 lb.	\$0.225
Edible Green Peas	176 lb.	\$0.225
Soybean	1.4 units	\$58.85
Faba bean	181 lb.	\$0.225
Flax	39 lb.	\$0.411
Hybrid Fall Rye	0.8 units	\$81.50
Canola	5 lb.	\$12.519

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
Oats	78	32	0
Hybrid Fall Rye	87	37	0
Corn	111	50	0
Large Green Lentils	3	13	0
Red Lentils	4	18	0
Yellow Peas	7	32	0
Green Peas	7	32	0
Soybean	5	24	0
Faba bean	13	63	0
Flax	64	19	0
Canola	90	48	14.5

	Crops				
	Spring Wheat	CPS Wheat	Winter Wheat	Malt Barley	Feed Barley
REVENUE PER ACRE					
Estimated Yield (bu./ac.,lb./ac.) (A)	57.3	73.2	65.3	65.8	80.5
Estimated on Farm Market Price/bu.,lb. (B)	6.69	4.41	4.59	4.68	3.70
Estimated Gross Revenue/ac. (AxB)=(C)	383.34	322.81	299.73	307.94	297.85
EXPENSES PER ACRE					
Variable Expenses/acre					
Seed	23.44	32.11	27.00	28.91	18.92
Fertilizer - Nitrogen	40.82	52.29	27.98	28.44	34.86
- Phosphorus	16.45	21.16	14.10	12.69	15.51
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00
Chemical - Herbicides	59.11	72.40	62.93	72.40	28.99
- Insecticides/Fungicides	38.66	38.66	10.05	36.02	36.02
- Seed Treatments/Inoculants	6.32	8.43	7.90	7.73	6.44
Machinery Operating - Fuel	21.51	22.75	21.50	21.45	22.53
- Repair	10.61	10.61	10.61	10.61	10.61
Custom Work and Hired Labour	19.75	19.75	19.75	17.75	17.75
Crop Insurance Premium	6.73	7.65	11.59	5.10	5.10
Utilities and Miscellaneous	4.97	4.97	4.97	4.97	4.97
Interest on Variable Expenses	6.21	7.27	12.28	6.15	5.04
Total Variable Expenses (D)	254.58	298.04	230.66	252.22	206.75
Other Expenses/acre					
Building Repair	0.84	0.84	0.84	0.84	0.84
Property Taxes	7.46	7.46	7.46	7.46	7.46
Business Overhead	3.37	3.37	3.37	3.37	3.37
Machinery Depreciation	43.90	43.90	43.90	43.90	43.90
Building Depreciation	1.90	1.90	1.90	1.90	1.90
Machinery Investment	30.77	30.77	30.77	30.77	30.77
Building Investment	1.16	1.16	1.16	1.16	1.16
Land Investment	48.26	48.26	48.26	48.26	48.26
Total Other Expenses (E)	137.67	137.67	137.67	137.67	137.67
Labour & Management (F)*					
Total Expenses (D+E+F)=(G)	392.25	435.71	368.32	389.89	344.42
RETURN PER ACRE					
Return Over Variable Expenses (C-D)	128.76	24.77	69.07	55.72	91.10
Return Over Total Expenses (C-G)	- 8.91	- 112.90	- 68.59	- 81.95	- 46.57
BREAK-EVEN YIELD PER ACRE					
To Cover Variable Expenses	38.05	67.58	50.25	53.89	55.88
To Cover Total Expenses	58.63	98.80	80.24	83.31	93.09
BREAK-EVEN PRICE PER BU./LB.					
To Cover Variable Expenses	4.44	4.07	3.53	3.83	2.57
To Cover Total Expenses	6.85	5.95	5.64	5.93	4.28

*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 2018 (CON'T)

	Crops										
	Hybrid Fall Rye	Oats	Corn**	Large Green Lentils	Red Lentils	Edible Yellow Peas	Edible Green Peas	Soybean	Faba Bean	Flax	Canola
REVENUE PER ACRE											
Estimated Yield (bu./ac.,lb./ac.) (A)	74.5	124.4	118.3	1713.5	1873.5	49.2	49.2	25.8	3125.8	31.2	46.8
Estimated on Farm Market Price/bu.,lb. (B)	3.94	2.93	4.52	0.29	0.17	7.00	8.00	11.48	0.10	12.50	11.36
Estimated Gross Revenue/ac. (AxB)=(C)	293.53	364.49	534.72	496.92	318.50	344.40	393.60	296.18	312.58	390.00	531.65
EXPENSES PER ACRE											
Variable Expenses/acre											
Seed	65.20	28.12	87.00	50.05	21.28	40.05	39.60	82.39	40.73	16.03	62.60
Fertilizer - Nitrogen	39.90	35.77	50.91	1.28	1.74	3.12	3.12	2.34	6.10	29.35	41.28
- Phosphorus	17.39	15.04	23.51	6.11	8.46	15.04	15.04	11.28	29.62	8.93	22.57
- Sulphur and Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.64
Chemical - Herbicides	34.62	22.95	35.76	86.21	86.21	74.10	74.10	55.59	82.12	55.10	46.18
- Insecticides/Fungicides	0.00	10.05	0.00	58.27	58.27	27.60	27.60	0.00	61.39	27.60	20.82
- Seed Treatments/Inoculants	0.00	3.95	0.00	13.88	13.88	16.34	16.34	14.00	16.34	1.86	0.00
Machinery Operating - Fuel	19.83	22.27	24.73	18.62	19.54	17.50	17.50	18.55	20.46	19.50	20.43
- Repair	10.61	10.61	12.11	10.61	10.61	10.61	10.61	10.61	10.61	10.61	10.61
Custom Work and Hired Labour	17.75	17.75	54.96	19.50	19.50	17.00	17.00	19.75	16.50	17.75	17.75
Crop Insurance Premium	7.13	8.98	11.93	24.53	22.16	8.82	8.82	7.67	7.48	10.93	13.10
Utilities and Miscellaneous	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97	4.97
Interest on Variable Expenses	12.23	4.51	7.65	7.35	6.67	5.88	5.87	5.68	7.41	5.07	6.65
Total Variable Expenses (D)	229.65	184.97	313.52	301.39	273.30	241.04	240.58	232.84	303.73	207.70	272.60
Other Expenses/acre											
Building Repair	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Property Taxes	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46	7.46
Business Overhead	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37	3.37
Machinery Depreciation	43.90	43.90	50.09	43.90	43.90	43.90	43.90	43.90	43.90	43.90	43.90
Building Depreciation	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
Machinery Investment	30.77	30.77	35.11	30.77	30.77	30.77	30.77	30.77	30.77	30.77	30.77
Building Investment	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Land Investment	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26	48.26
Total Other Expenses (E)	137.67	137.67	148.19	137.67	137.67	137.67	137.67	137.67	137.67	137.67	137.67
Labour & Management (F)*											
Total Expenses (D+E+F)=(G)	367.31	322.64	461.72	439.06	410.97	378.71	378.25	370.51	441.40	345.37	410.27
RETURN PER ACRE											
Return Over Variable Expenses (C-D)	63.88	179.52	221.20	195.53	45.20	103.36	153.02	63.34	8.85	182.30	259.05
Return Over Total Expenses (C-G)	- 73.78	41.85	73.00	57.86	- 92.47	- 34.31	15.35	- 74.33	- 128.82	44.63	121.38
BREAK-EVEN YIELD PER ACRE											
To Cover Variable Expenses	58.29	63.13	69.36	1039.27	1607.63	34.43	30.07	20.28	3037.30	16.62	24.00
To Cover Total Expenses	93.23	110.12	102.15	1513.99	2417.45	54.10	47.28	32.27	4413.99	27.63	36.11
BREAK-EVEN PRICE PER BU./LB.											
To Cover Variable Expenses	3.08	1.49	2.65	0.18	0.15	4.90	4.89	9.02	0.10	6.66	5.82
To Cover Total Expenses	4.93	2.59	3.90	0.26	0.22	7.70	7.69	14.36	0.14	11.07	8.77

*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 2018

1. Seeding Rate and Certified Seed Price:

	Soil zone	Rate/ ac.	Price (lb./ plant)
Camelina	Brown	6 lb.	\$4.00
Canaryseed	Dk Brown	37 lb.	\$0.50
Caraway	Black	12 lb.	\$1.25
Desi Chickpea	Brown	93 lb.	\$0.80
Kabuli Chickpea (9 mm)	Brown	145 lb.	\$0.85
Kabuli Chickpea (7 mm)	Brown	109 lb.	\$0.85
Coriander	Dk Brown	25 lb.	\$0.55
Fenugreek	Brown	30 lb.	\$0.50
Yellow Mustard	Brown	10 lb.	\$3.15
Oriental Mustard	Brown	6 lb.	\$4.30
Brown Mustard	Brown	6 lb.	\$4.30
Pinto Bean	Dk Brown	99 lb.	\$1.10
Sunflower Oilseed	Dk Brown	19,000 plants	\$0.003
Quinoa	Black	10 lb.	\$5.00

2. Fertilizer:

	lb./ac.			
	N	P	K	S
Camelina	60	20	0	15
Canaryseed	40	34	21	11
Caraway	28	22	13	0
Desi Chickpea	6	31	0	0
Kabuli Chickpea (9 mm)	8	39	0	0
Kabuli Chickpea (7 mm)	7	33	0	0
Coriander	66	37	0	0
Fenugreek	2.3	11	0	0
Yellow Mustard	34	19	0	15
Oriental Mustard	47	25	0	15
Brown Mustard	43	23	0	15
Pinto Bean	23	8	0	0
Sunflower Oilseed	75	30	50	26
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)	1040	1666	685	1293
Estimated On Farm Market Price/bus.,lb. (B)	0.23	0.22	0.83	0.35
Estimated Gross Revenue/ac. (AxB)=(C)	239.20	366.52	568.55	452.55
EXPENSES PER ACRE				
Variable Expenses/acre				
Seed	24.00	18.50	15.00	13.75
Fertilizer - Nitrogen	27.52	18.35	12.84	30.27
- Phosphorus	9.40	15.98	10.34	17.39
- Sulphur and Other	5.82	10.38	3.78	0
Chemical**- Herbicides	14.80	49.49	59.86	62.83
- Insecticides/Fungicides	0.00	16.24	0.00	22.22
- Seed Treatments/Inoculants	0.00	0.00	0.57	1.19
Machinery Operating - Fuel	18.80	18.70	18.12	17.66
- Repair	8.32	9.38	21.22	9.38
Custom Work and Hired Labour	17.00	18.75	16.50	16.50
Crop Insurance Premium	3.44	9.43	60.46	13.54
Utilities and Miscellaneous	3.28	4.31	4.97	4.31
Interest on Variable Expenses	3.31	4.74	5.59	5.23
Total Variable Expenses (D)	135.68	194.25	229.27	214.26
Other Expenses/acre				
Building Repair	0.46	0.62	1.68	0.62
Property Taxes	3.76	4.92	14.92	4.92
Business Overhead	1.88	2.87	6.75	2.87
Machinery Depreciation	34.40	38.79	87.81	38.79
Building Depreciation	1.05	1.40	3.80	1.40
Machinery Investment	24.11	27.19	61.55	27.19
Building Investment	0.64	0.86	2.33	0.86
Land Investment	37.18	43.12	96.51	43.12
Total Other Expenses (E)	103.49	119.76	275.34	119.76
Labour and Management (F)*				
Total Expenses (D+E+F)=(G)	239.18	314.01	504.61	334.02
RETURNS PER ACRE				
Return Over Variable Expenses (C-D)	103.52	172.27	339.28	238.29
Return Over Total Expenses (C-G)	0.02	52.51	63.94	118.53
BREAK-EVEN YIELD PER ACRE				
To Cover Variable Expenses	589.93	882.93	276.23	612.18
To Cover Total Expenses	1039.90	1427.30	607.96	954.35
BREAK-EVEN PRICE PER BU./LB.				
To Cover Variable Expenses	0.13	0.12	0.33	0.17
To Cover Total Expenses	0.23	0.19	0.74	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 2018(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)	1948	2621	2524	900	994	1321
Estimated On Farm Market Price/bus.,lb. (B)	0.30	0.60	0.60	0.28	0.43	0.42
Estimated Gross Revenue/ac. (AxB)=(C)	584.40	1,572.60	1,514.40	252.00	427.42	554.82
EXPENSES PER ACRE						
Variable Expenses/acre						
Seed	74.40	123.25	92.65	15.00	31.50	25.80
Fertilizer - Nitrogen	2.75	3.67	3.21	1.07	15.59	21.56
- Phosphorus	14.57	18.33	15.51	5.17	8.93	11.75
- Sulphur and Other	0.00	0.00	0.00	0.00	5.82	5.82
Chemical** - Herbicides	88.39	88.39	88.39	33.85	52.03	65.35
- Insecticides/Fungicides	44.48	49.91	46.15	0.00	0.00	6.19
- Seed Treatments/Inoculants	16.34	16.66	16.66	16.37	0.00	0.00
Machinery Operating - Fuel	18.96	20.65	19.88	11.77	14.49	15.63
- Repair	8.32	8.32	8.32	8.32	8.32	8.32
Custom Work and Hired Labour	16.50	16.50	16.50	16.50	17.00	17.00
Crop Insurance Premium	32.63	46.14	47.54	0.00	10.45	9.49
Utilities and Miscellaneous	3.28	3.28	3.28	3.28	3.28	3.28
Interest on Variable Expenses	8.02	9.88	8.95	2.78	4.19	4.75
Total Variable Expenses (D)	328.65	404.98	367.05	114.10	171.60	194.94
Other Expenses/acre						
Building Repair	0.46	0.46	0.46	0.46	0.46	0.46
Property Taxes	3.76	3.76	3.76	3.76	3.76	3.76
Business Overhead	1.88	1.88	1.88	1.88	1.88	1.88
Machinery Depreciation	34.40	34.40	34.40	34.40	34.40	34.40
Building Depreciation	1.05	1.05	1.05	1.05	1.05	1.05
Machinery Investment	24.11	24.11	24.11	24.11	24.11	24.11
Building Investment	0.64	0.64	0.64	0.64	0.64	0.64
Land Investment	37.18	37.18	37.18	37.18	37.18	37.18
Total Other Expenses (E)	103.49	103.49	103.49	103.49	103.49	103.49
Labour and Management (F)*						
Total Expenses (D+E+F)=(G)	432.14	508.47	470.54	217.60	275.10	298.43
RETURNS PER ACRE						
Return Over Variable Expenses (C-D)	255.75	1,167.62	1,147.35	137.90	255.82	359.88
Return Over Total Expenses (C-G)	152.26	1,064.13	1,043.86	34.40	152.32	256.39
BREAK-EVEN YIELD PER ACRE						
To Cover Variable Expenses	1095.50	674.97	611.75	407.51	399.08	464.14
To Cover Total Expenses	1440.47	847.46	784.23	777.13	639.76	710.55
BREAK-EVEN PRICE PER BU./LB.						
To Cover Variable Expenses	0.17	0.15	0.15	0.13	0.17	0.15
To Cover Total Expenses	0.22	0.19	0.19	0.24	0.28	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 2018 (CON'T)

CROP	Brown Mustard	Pinto Bean***	Sunflower Oilseed	Quinoa
Type of Rotation	Re-crop	Re-crop	Re-crop	Re-crop
Rotation Years Required to Grow This Crop	1	1	1	1
Soil Zone	Brown	DkBrown	DkBrown	Black
REVENUE PER ACRE				
Estimated Yield (bu./ac.,lb./ac.) (A)	1243	1396	2160	1000
Estimated On Farm Market Price/bus.,lb. (B)	0.37	0.28	0.23	0.65
Estimated Gross Revenue/ac. (AxB)=(C)	459.91	390.88	496.80	650.00
EXPENSES PER ACRE				
Variable Expenses/acre				
Seed	25.80	108.90	57.00	50.00
Fertilizer - Nitrogen	19.72	10.55	34.40	19.26
- Phosphorus	10.81	3.76	14.10	8.46
- Sulphur and Other	5.82	0.00	24.65	5.53
Chemical** - Herbicides	65.35	70.77	68.74	8.90
- Insecticides/Fungicides	6.19	10.83	0.00	0.00
- Seed Treatments/Inoculants	0.00	16.37	0.00	0.50
Machinery Operating - Fuel	15.23	16.12	21.99	14.76
- Repair	8.32	9.38	9.38	10.61
Custom Work and Hired Labour	17.00	16.50	17.50	16.50
Crop Insurance Premium	9.23	15.98	17.21	20.93
Utilities and Miscellaneous	3.28	4.31	4.31	4.97
Interest on Variable Expenses	4.67	7.09	6.73	4.01
Total Variable Expenses (D)	191.43	290.56	276.01	164.44
Other Expenses/acre				
Building Repair	0.46	0.62	0.62	0.84
Property Taxes	3.76	4.92	4.92	7.46
Business Overhead	1.88	2.87	2.87	3.37
Machinery Depreciation	34.40	38.79	38.79	43.90
Building Depreciation	1.05	1.40	1.40	1.90
Machinery Investment	24.11	27.19	27.19	30.77
Building Investment	0.64	0.86	0.86	1.16
Land Investment	37.18	43.12	43.12	48.26
Total Other Expenses (E)	103.49	119.76	119.76	137.67
Labour and Management (F)*				
Total Expenses (D+E+F)=(G)	294.92	410.32	395.77	302.11
RETURNS PER ACRE				
Return Over Variable Expenses (C-D)	268.48	100.32	220.79	485.56
Return Over Total Expenses (C-G)	164.99	- 19.44	101.03	347.89
BREAK-EVEN YIELD PER ACRE				
To Cover Variable Expenses	517.37	1037.71	1200.04	252.98
To Cover Total Expenses	797.08	1465.43	1720.74	464.78
BREAK-EVEN PRICE PER BU./LB.				
To Cover Variable Expenses	0.15	0.21	0.13	0.16
To Cover Total Expenses	0.24	0.29	0.18	0.30

* 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 2018

Crop	Type	lb./bu.	Adaptation	Seed Rate (lb./ac.)	Est. Seeds per lb.	Weed Pest & Disease Fertilizer Advice
Camelina	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.
Canaryseed	Annual birdseed	50	Moderate moisture requirements, shallow rooted.	37	65,000	Several herbicides are registered. Potash fertilizer may be required.
Caraway	Biennial spice	35	Widely adapted, yields best under moderate moisture.	12	90,000	Several herbicides are registered.
Desi Chickpea	Annual pulse	60	Indeterminate crop, Brown and Dark Brown soils.	93	1,350 - 2,300	Several registered herbicides. Seed treatment and fungicide use recommended.
Kabuli Chickpea 9mm	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.
Kabuli Chickpea 7mm	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.
Coriander	Annual spice	22	Heat loving, late maturing.	25	50,000	Several herbicides are registered.
Fenugreek	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.
Yellow Mustard	Annual oilseed	50	Better seed quality in drier areas.	10	100,000	Several registered herbicides.
Brown Mustard	Annual oilseed	50	More heat and drought tolerant than canola.	6	200,000	Several registered herbicides.
Oriental Mustard	Annual oilseed	50	More heat and drought tolerant than canola.	6	200,000	Several registered herbicides.
Pinto Bean narrow row and dry land	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.
Sunflower Oilseed	Annual oilseed	30	Moderate heat requirements. Brown, Dark Brown and thin Black soils.	19,000 plants	11,000 - 13,500	Trifluralin, Edge and Select are registered herbicides.
Quinoa	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 2018 (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
Sunflower Oilseed	24 - 35	99 - 103	Swath and combine or direct combine with standard equipment.	< 10%	Premiums for high oil content.	Edible oil
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			
REVENUE PER ACRE				
A Estimated yield (bu./ac.; lb./ac.)				
B Estimated on-farm market price per bushel or per pound				
C Estimated Gross Revenue per acre				
EXPENSES PER ACRE				
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				
D Total Variable Expenses				
Other Expenses/acre				
Building Repair				
Property Taxes				
Business Overhead				
Machinery Depreciation				
Building Depreciation				
Machinery Investment				
Building Investment				
Land Investment				
E Total Other Expenses				
F Labour and Management				
G Total Expenses (D+E+F)				
RETURNS PER ACRE				
Return Over Variable Expenses (C-D)				
Return Over Total Expenses (C-G)				
BREAK-EVEN YIELD PER ACRE (lb./ac. or bu./ac.)				
To Cover Variable Expenses				
To Cover Total Expenses				
BREAK-EVEN PRICE PER BU./LB.				
To Cover Variable Expenses				
To Cover Total Expenses				

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