

AgriProfit\$

2017 Cropping Alternatives

Economics & Competitiveness



Disclaimer:

The following regional forecasts are based on the most current cost of production information from the AgriProfit\$ Business Analysis & Research Program and estimates of expected revenues and costs from various sources. Producers should use their own costs and revenue projections to make cropping decisions for farm operations. There is a risk of over or under-estimating costs and returns based on regional benchmarks and forecasts. Producers are advised not to base cropping decisions solely on information provided in the following budgets. The Alberta Agriculture and Forestry crop budgeting software program **CropChoice\$** and the blank individual form are available to customize your own crop budgets. You can download CropChoice\$ software free of charge at the following link: www.agriculture.alberta.ca/cropchoices.

Prices:

Expected market prices are estimates ONLY, which are based on forecasts for the 2017 crop. Prices in these budgets are estimated by Agriculture and Forestry specialists using future price outlooks less Alberta deductions, Informa Economics forecasts, and Agriculture and Agri-Food Canada's Market Outlook Reports. Prices are not adjusted to reflect differences in soil zone regions other than differences in grade. Use this information with caution as current prices may not match new crop market signals.

Yields:

There is a wide range of yields within each soil zone region. Yield estimates by crop represent average long term trend yields developed by Alberta Financial Services Corporation (AFSC) adjusted upwards by 20% for dryland soil zones and 15% for irrigated zones. For red lentils where long term yields are not available, crop specialist's recommendation has been used.

Seed Costs: (See the following Seeding Rate Table.)

Seed costs are based on data collected by the Alberta Farm Input Prices Survey (AIMS) and seed suppliers as well as a seed cost multiplier for a blend of certified and common seed that is cleaned and treated. Seeding rates for each soil zone are based on 1000 kernel weight for common varieties, 90-95% germination, 3-5% emergence mortality, and 9" spacing. Seeding rates for forages are based on 1000 kernel weight for common varieties, pure live seed and a 50-50 split of broadcasted and row seeded plantings.

Fertilizer Costs:

Prices are based on an average of high, low and medium of blend of fall 2016 and indications for spring 2017 such as fall and spring application, and pre-buying inputs. NPKS blends are based on estimated crop requirements for nutrient deficient, stubble-seeded crops in each soil zone.

Nitrogen	\$0.41/lb actual N	(\$417.5/tonne for 46-0-0)
Phosphorous	\$0.44/lb actual P	(\$601.25/tonne for 11-51-0)
Potassium	\$0.29/lb actual K	(\$391.25/tonne for 0-0-60)
Sulphur	\$0.46/lb actual S	(\$428.75/tonne for 20-0-0-24)

Soil testing is recommended to maximize fertilizer budget to field production capacity and crop choice. The Alberta Farm Fertilizer Information and Recommendation Manager (AFFIRM) is an Alberta Agriculture and Forestry software tool that can help producers optimize fertilizer requirements for crop production. Variable rate technology is also an option being explored by producers to maximize production to fertilizer and input expenses. In a mature commodity market, managing costs could mean the difference between farm profitability or farm losses.

Chemical: (See the following Chemical Application Table.)

The 2016 chemical costs on stubble-seeded crops requiring a non-selective, pre-seed burn-off, and one in-crop herbicide application for broadleaf weeds, grassy weeds or both are used after adjustment with an index. For red lentils, 2017 chemical costs were used. Feed barley is based on 50% of the acres receiving an in-crop herbicide treatment. Fungicides, insecticides and/or pre-harvest/ dessication applications (F//PH/D) are indicated by an asterisk*.

Hail/Crop Insurance:

Insurance is based on information from AFSC averaged for select areas in respective soil zones.

Trucking & Marketing:

For grains and oilseeds, trucking and marketing costs are averages for short haul and long haul. For hay, trucking and marketing costs are estimates from suppliers assuming bales shipped are large squares (1500 lbs). For silage, trucking and marketing costs are last year's estimates indexed for 2017 year.

Fuel, Oil & Lube, Machinery Repairs, Building Repairs, Pumping Costs (Irrigation only), Custom Work, Labour (Paid and Unpaid), Utilities & Miscellaneous, Operating Interest, and Storage and levies

These costs are based on information collected by the AgriProfit\$ program, the AIMS and irrigation specialists. Many of these costs are influenced significantly by different farming practices. Fuel costs also include an adjustment factor for yield.

Operating Interest:

4.64% per annum for inputs borrowed (seed, fertilizer and chemical).

Contribution Margin:

Contribution margin represents the amount a particular crop contributes to fixed costs, and return to management and equity. Use the contribution margin to compare crop choices. Positive contribution margin indicates that the enterprise/crop is economically sustainable.

Capital Costs By Enterprise:

Fixed costs generally do not vary greatly from crop to crop, but these can vary between enterprises and soil zone regions. Average fixed cost profiles by enterprise are included for your information. The capital costs are adjusted to reflect costs for the 2017 year with an index.

Summerfallow:

The summerfallow columns included in the Brown and Dark Brown budgets are only provided to reference the expected costs incurred in a non-crop year. Fallow-seeded crops are not included in this analysis because this practice has significantly declined. Producers wanting to evaluate fallow-seeded crops can use CropChoice\$ or the blank worksheet provided.

Contribution Margin Calculation:

Value of Production - Total Direct Expenses

Total Cost per Unit Calculation:

(Total Direct Expenses + Adjusted Capital Costs) divided by Expected Yield per Acre

Break-Even Yield Calculation:

(Total Direct Expenses + Adjusted Capital Costs) divided by Expected Market Price

Acknowledgements:

AF: Emmanuel Laate, Neil Blue, Rod Bennett, Neil Whatley, Lorraine Kohlman, Pauline Van Biert, Bill Chapman, Ryan Furtas, Philippa Rodrigues, Industry Partners; AFSC: Ken Handford

2017 Cropping Alternatives

Seeding Rate by Alberta Soil Zones

	Black			Brown			Dark Brown			Grey-Wooded			Peace Region			Irrigation		
	lbs/ac	bu/ac	\$/ac	lbs/ac	bu/ac	\$/ac	lbs/ac	bu/ac	\$/ac	lbs/ac	bu/ac	\$/ac	lbs/ac	bu/ac	\$/ac	lbs/ac	bu/ac	\$/ac
spring wheat		2.5	30.00		1.75	21.00		2	24.00		2.5	30.00		2	24.00		2.25	27.00
cps wheat		2.5	25.00		1.75	17.50		2	20.00		2.5	25.00		2	20.00		2.25	22.50
durum wheat					1.75	25.81		1.75	25.81								2	29.50
soft white wheat																	2	18.50
winter wheat								2	21.00									
malt barley		2.5	27.50		1.75	19.25		2	22.00		2.5	27.50		2	22.00		2.5	27.50
feed barley		2.5	18.75		1.75	13.13		2	15.00		2.5	18.75		2	15.00		2.5	18.75
milling oats		2.5	18.13		2	14.50		2.25	16.31		2.5	18.13		2	14.50			
argentine canola	5		46.38	4		37.10	5		46.38	5		46.38	4		37.10	5		46.38
polish canola													4		21.84			
field pea		3	41.63		2.75	38.16		2.75	38.16		3	41.63		2.75	38.16			
yellow mustard				10		44.10	10		44.10									
chickpeas				120		76.80												
lentils				60		34.80	60		34.80									
flax							45		0.00									
dry beans																60		74.25
cereal silage		2.5	18.44				2		14.75		2.5	18.44		2	14.75		2.5	18.44
mixed hay	11		3.53	10		3.24	10		3.24	11		3.53	11		3.53			
alfalfa hay	10		10.63							10		12.85	10		12.85	14		18.00

Chemical Application by Alberta Soil Zones

	Black			Brown			Dark Brown			Grey-Wooded			Peace Region (Grey-Wooded)			Irrigation		
	PreSeed	In Crop	F//PH/D	PreSeed	In Crop	F//PH/D	PreSeed	In Crop	F//PH/D	PreSeed	In Crop	F//PH/D	PreSeed	In Crop	F//PH/D	PreSeed	In Crop	F//PH/D
spring wheat	6.06	20.91	14.21	0.00	0.00	0.00	0.00	0.00	0.00	6.06	20.91	8.88	6.06	20.91	8.88	6.06	20.91	17.76
cps wheat	6.06	20.91		0.00	0.00		0.00	0.00		6.06	20.91		6.06	20.91		6.06	20.91	
durum wheat				0.00	0.00	0.00	0.00	0.00	0.00							6.06	20.91	17.76
soft white wheat																6.06	20.91	17.76
winter wheat							0.00	0.00										
malt barley	6.06	20.91		0.00	0.00		0.00	0.00		6.06	20.91		6.06	20.91		6.06	20.91	17.76
feed barley	6.06	10.46		0.00	0.00		0.00	0.00		6.06	10.46		6.06	10.46		6.06	10.46	6.06
milling oats	6.06	7.78		0.00	0.00		6.06	7.78		6.06	7.78		6.06	7.78				
argentine canola	6.06	12.63		0.00	0.00		6.06	12.63		6.06	12.63		6.06	12.63		6.06	12.63	19.70
polish canola													6.06	11.11				
field pea	6.06	13.13	15.15	6.06	13.13	15.15	6.06	13.13	15.15	6.06	13.13	15.15	6.06	13.13				
yellow mustard				6.06	10.10		6.06	10.10										
chickpeas				12.38	5.05	19.99												
lentils				19.00	17.75	23.60	19.00	17.75	23.60									
flax							6.06	17.17										
dry beans																6.06	14.14	22.73
cereal silage	6.06	7.78					6.06	7.78		6.06	7.78		6.06	7.78		6.06	7.78	
mixed hay	1.52			1.52			1.52			1.52			1.52					
alfalfa hay	1.89									1.89			1.89			2.27		

2017 Cropping Alternatives

Individual Production Costs & Returns (\$/Acre)

<i>AgriProfit</i> \$	Crop 1	Crop 2	Crop 3	Crop 4	Crop 5
Expected Yield per Acre					
Expected Market Price per Unit					
Value of Production					
Direct Expenses:					
Seed, cleaning and treatment					
Fertilizer					
Chemical					
Hail & Crop Insurance					
Trucking & Marketing					
Fuel, Oil & Lube					
Irrigation: Pumping Costs					
Machinery Repairs					
Building Repairs					
Utilities & Miscellaneous					
Custom Work					
Paid Labour					
Unpaid Labour					
Operating Interest					
Summerfallow Expense					
Other Expenses					
Total Direct Expense					
Contribution Margin					
Cash/Share Rent & Land Lease					
Taxes, Licenses & Insurance					
Water Rates (Irrigation only)					
Depreciation & Lease Payments					
Paid Capital Interest					
Total Capital Costs					
Return to Mgmt & Equity					
Break-Even Yield					
Break-Even Price					

2017 Cropping Alternatives

2017 Production Costs and Returns (\$/acre)

Black Soils

Stubble Seeded Crops

<i>AgriProfit</i> \$	Spring Wheat 2 CWRS 11.5%	CPS Wheat 1 CPSR	Feed Barley 1 CW	Malt Barley Select CW 2R	Milling Oats 3 CW	Argentine HT Canola 1 CAN	Field Peas 2 CAN	Mixed Hay	Alfalfa Hay	Cereal Silage
Expected Yield per Acre	60.00 bu	70.00 bu	83.00 bu	83.00 bu	96.00 bu	43.00 bu	56.00 bu	2.25 t	2.50 t	7.57 t
Expected Market Price	5.90 /bu	5.20 /bu	3.40 /bu	5.00 /bu	2.55 /bu	10.50 /bu	7.50 /bu	70.00 /t	90.00 /t	42.00 /t
Crop Sales (\$/acre)	354.00	364.00	282.20	415.00	244.80	451.50	420.00	157.50	225.00	317.94
Direct Expenses:										
Seed, Cleaning & Treatment	30.00	25.00	18.75	27.50	18.13	46.38	41.63	3.53	10.63	18.44
Fertilizer (NPKS blend)	49.50 80-30-10-0	49.50 80-30-10-0	49.50 80-30-10-0	52.50 70-30-20-10	42.00 70-30-0-0	72.50 100-40-15-20	20.00 5-30-15-0	13.00 15-15-0-0	13.00 5-25-0-0	38.00 65-25-0-0
Chemical	41.43 *	41.43 *	16.62	41.43 *	13.92	34.66 *	34.56 *	1.52	1.91	13.92
Hail/Crop Insurance	16.07	18.52	14.38	14.38	16.71	19.95	20.20	NA	NA	NA
Trucking & Marketing	20.00	23.33	22.63	22.63	18.42	12.16	18.66	51.87	56.86	22.94
Fuel, Oil & Lube	18.72	16.95	17.71	19.48	12.40	19.23	24.29	8.10	5.06	31.88
Machinery Repairs	17.87	17.61	11.91	17.35	11.91	15.80	18.39	15.54	7.25	11.40
Building Repairs	2.07	5.18	2.07	5.70	2.85	2.33	4.66	5.18	3.11	3.63
Custom Work	2.02	2.02	2.27	3.02	14.62	2.52	8.32	2.02	4.54	5.04
Labour (Paid and Unpaid)	17.82	21.78	14.36	23.27	19.31	18.32	21.78	24.75	10.89	31.68
Utilities & Miscellaneous	11.30	11.30	11.30	11.30	11.30	13.76	13.76	6.86	6.86	7.85
Operating Interest	5.61	5.38	3.94	5.63	3.44	7.12	4.46	0.84	1.18	3.26
Total Direct Expense	232.42	238.01	185.45	244.21	185.00	264.72	230.71	133.21	121.28	188.04
Contribution Margin	121.58	125.99	96.75	170.79	59.80	186.78	189.29	24.29	103.72	129.90

Total Cost per Unit	6.09	5.30	3.84	4.55	3.32	9.26	6.50	104.77	89.53	38.38
Break-Even Yield	62.00 bu	72.00 bu	94.00 bu	76.00 bu	125.00 bu	38.00 bu	49.00 bu	3.37 t	2.49 t	6.92 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	69.20	43.31
Licenses and Insurance	11.48	5.74
Depreciation	46.92	49.85
Paid Capital Interest	7.00	4.67
Total Capital Costs	134.60	103.57
Adjusted Capital Costs	133.25	102.53

Questions?

Rawlin Thangaraj 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry

Note: Please refer to 2017 Methodology on Ropin the Web.

Prepared January 23, 2017

2017 Cropping Alternatives

2017 Production Costs and Returns (\$/acre)

Brown Soils

Stubble Seeded Crops

<i>AgriProfit</i> [®]	Spring Wheat <small>1 CWRS 13.5%</small>	CPS Wheat <small>1 CPSR</small>	Durum Wheat <small>1 CWAD 13%</small>	Feed Barley <small>1 CW</small>	Malt Barley <small>Select CW 2R</small>	Milling Oats <small>3 CW</small>	Argentine HT Canola <small>1 CAN</small>	Field Peas <small>2 CAN</small>	Red Lentil <small>2 CAN</small>	Kabuli Chickpea <small>2 CW 8mm</small>	Yellow Mustard <small>1 CAN</small>	Mixed Hay	Summer fallow
Expected Yield per Acre	38.00 bu	40.00 bu	40.00 bu	53.00 bu	53.00 bu	49.00 bu	28.00 bu	45.00 bu	1525.00 lbs	1463.00 lbs	661.00 lbs	1.50 t	0.00
Expected Market Price	6.50 /bu	5.20 /bu	6.80 /bu	3.40 /bu	5.00 /bu	2.55 /bu	10.50 /bu	7.50 /lb	0.30 /lb	0.32 /lb	0.28 /lb	70.00 /t	0.00
Crop Sales (\$/acre)	247.00	208.00	272.00	180.20	265.00	124.95	294.00	337.50	457.50	468.16	185.08	105.00	0.00
Direct Expenses:													
Seed, Cleaning & Treatment	21.00	17.50	25.81	13.13	19.25	14.50	37.10	38.16	34.80	76.80	44.10	3.24	0.00
Fertilizer (NPKS blend)	31.00 <small>50-20-5-0</small>	31.00 <small>50-20-5-0</small>	31.00 <small>50-20-5-0</small>	37.50 <small>60-25-5-0</small>	41.50 <small>50-30-10-10</small>	29.50 <small>50-20-0-0</small>	45.50 <small>65-25-10-10</small>	14.00 <small>5-20-10-0</small>	11.00 <small>5-20-0-0</small>	15.50 <small>5-30-0-0</small>	30.00 <small>40-20-0-10</small>	8.50 <small>10-10-0-0</small>	0.00
Chemical	39.65 *	39.65 *	39.65 *	16.62	39.65 *	13.92	32.68 *	34.56 *	60.35 *	37.65 *	16.26	1.52	18.11
Hail/Crop Insurance	14.52	17.63	16.68	13.32	13.32	11.80	21.91	17.37	26.67	22.97	16.98	NA	NA
Trucking & Marketing	12.67	13.33	13.33	14.45	14.45	9.40	7.92	15.00	8.63	8.27	3.74	34.48	0.00
Fuel, Oil & Lube	13.50	12.82	12.99	13.16	13.31	13.06	14.68	13.32	11.64	13.92	13.16	6.83	7.34
Machinery Repairs	15.28	11.66	12.43	8.81	8.29	10.36	8.29	11.14	8.29	9.32	8.81	10.36	9.32
Building Repairs	1.55	2.59	1.30	1.04	1.04	2.59	1.55	2.33	2.85	2.07	1.04	3.11	1.04
Custom Work	4.03	1.51	3.53	4.03	2.52	2.52	8.06	2.02	2.02	4.03	3.02	2.02	0.00
Labour (Paid and Unpaid)	20.79	17.33	17.33	15.84	15.84	13.86	18.32	13.12	12.87	14.85	13.37	15.84	9.90
Utilities & Miscellaneous	11.30	11.30	9.79	9.79	9.79	6.86	9.79	9.79	7.33	8.37	7.85	5.91	2.84
Operating Interest	4.25	4.09	4.48	3.12	4.66	2.69	5.35	4.02	4.93	6.03	4.19	0.62	0.84
Total Direct Expense	189.55	180.41	188.31	150.80	183.62	131.06	211.14	174.82	191.36	219.78	162.51	92.43	49.38
Contribution Margin	57.45	27.59	83.69	29.40	81.38	(6.11)	82.86	162.68	266.14	248.38	22.57	12.57	(49.38)

Total Cost per Unit	7.13	6.55	6.75	4.38	5.00	4.34	10.45	5.70	0.18	0.21	0.37	109.76	N/A
Break-Even Yield	42.00 bu	51.00 bu	40.00 bu	69.00 bu	54.00 bu	84.00 bu	28.00 bu	35.00 bu	910.00 lbs	942.00 lbs	872.00 lbs	2.35 t	N/A

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	36.52	29.22
Licenses and Insurance	5.74	8.35
Depreciation	28.15	32.26
Paid Capital Interest	11.92	3.11
Total Capital Costs	82.34	72.94
Adjusted Capital Costs	81.52	72.21

Questions?
 Rawlin Thangaraj 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry
 Note: Please refer to 2017 Methodology on Ropin the Web.

Prepared January 23, 2017

2017 Cropping Alternatives

2017 Production Costs and Returns (\$/acre)

Dark Brown Soils

Stubble Seeded Crops														
<i>AgriProfit</i> \$	Spring Wheat	CPS Wheat	Durum Wheat	Winter Wheat	Feed Barley	Malt Barley	Milling Oats	Argentine HT Canola	Field Peas	Flax	Yellow Mustard	Red Lentil	Mixed Hay	Cereal Silage
	¹ CWRS 13.5%	¹ CPSR	¹ CWAD 13%	Select CWRW	¹ CW	Select CW 2R	³ CW	¹ CAN	² CAN	¹ CW	¹ CAN			
Expected Yield per Acre	44.00 bu	49.00 bu	41.00 bu	46.00 bu	63.00 bu	63.00 bu	55.00 bu	32.00 bu	45.00 bu	21.00 bu	706.00 lbs	1500.00 lbs	1.75 t	5.73 t
Expected Market Price	6.50 /bu	5.20 /bu	6.80 /bu	5.25 /bu	3.40 /bu	5.00 /bu	2.55 /bu	10.50 /bu	7.50 /bu	11.50 /bu	0.28 /lb	0.30 /lb	70.00 /t	42.00 /t
Crop Sales (\$/acre)	286.00	254.80	278.80	241.50	214.20	315.00	140.25	336.00	337.50	241.50	197.68	450.00	122.50	240.66
Direct Expenses:														
Seed, Cleaning & Treatment	24.00	20.00	25.81	21.00	15.00	22.00	16.31	46.38	38.16	0.00	44.10	34.80	3.24	14.75
Fertilizer (NPKS blend)	37.50 60-25-5-0	37.50 60-25-5-0	37.50 60-25-5-0	37.50 60-25-5-0	41.50 70-25-5-0	47.00 60-30-15-10	31.50 55-20-0-0	54.00 75-30-10-15	14.00 5-20-10-0	29.50 50-20-0-0	36.50 50-25-0-10	13.00 5-25-0-0	11.00 10-15-0-0	33.50 60-20-0-0
Chemical	39.65 *	39.65 *	39.65 *	13.92 *	16.62	39.65 *	13.92	32.68 *	34.56 *	23.38 *	16.26	60.35 *	1.52	13.92
Hail/Crop Insurance	15.62	18.47	17.33	13.26	13.79	13.79	13.46	23.83	17.37	20.52	17.00	26.67	NA	NA
Trucking & Marketing	14.67	16.33	13.67	15.33	17.18	17.18	10.55	9.05	15.00	6.58	3.99	8.48	40.27	17.36
Fuel, Oil & Lube	11.84	13.51	13.92	13.49	12.65	12.80	11.52	14.06	14.08	10.67	13.16	11.64	8.91	13.16
Machinery Repairs	12.69	12.95	11.40	12.43	12.43	12.95	11.40	15.54	13.99	11.40	11.40	8.29	9.84	7.25
Building Repairs	1.04	1.55	1.04	1.04	2.07	2.59	1.04	1.55	1.81	1.55	1.55	2.85	2.59	1.30
Custom Work	2.02	3.02	3.02	3.02	6.05	6.05	2.02	5.04	3.02	8.06	4.54	2.02	9.58	40.32
Labour (Paid and Unpaid)	12.38	12.87	11.39	12.38	12.13	12.87	12.87	13.86	12.13	14.36	13.37	12.87	9.90	9.90
Utilities & Miscellaneous	11.30	11.30	9.79	9.79	9.79	9.79	6.86	9.79	9.79	9.79	9.79	7.33	6.86	7.85
Operating Interest	4.69	4.51	4.78	3.36	3.39	5.04	2.86	6.17	4.02	2.45	4.49	5.02	0.73	2.88
Total Direct Expense	187.39	191.67	189.28	156.53	162.60	201.71	134.32	231.95	177.93	138.25	176.15	193.31	104.43	162.20
Contribution Margin	98.61	63.13	89.52	84.97	51.60	113.29	5.93	104.05	159.57	103.25	21.53	256.69	18.07	78.46

Total Cost per Unit	6.32	5.76	6.83	5.38	4.02	4.64	4.09	10.09	5.97	10.91	0.38	0.17	96.18	39.46
Break-Even Yield	43.00 bu	55.00 bu	42.00 bu	48.00 bu	75.00 bu	59.00 bu	89.00 bu	31.00 bu	36.00 bu	20.00 bu	954.00 lbs	857.33 lbs	2.40 t	5.38 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	51.19	27.13
Licenses and Insurance	4.96	5.22
Depreciation	29.33	18.18
Paid Capital Interest	6.22	14.00
Total Capital Costs	91.69	64.53
Adjusted Capital Costs	90.77	63.88

Questions?
 Rawlin Thangaraj 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry
 Note: Please refer to 2017 Methodology on Ropin the Web.

Prepared January 23, 2017

2017 Cropping Alternatives

2017 Production Costs and Returns (\$/acre)

Grey-Wooded Soils

Stubble Seeded Crops

<i>AgriProfit</i> ®	Spring Wheat 2 CWRS 11.5%	CPS Wheat 1 CPSR	Feed Barley 1 CW	Malt Barley Select CW 2R	Milling Oats 3 CW	Argentine HT Canola 1 CAN	Field Peas 2 CAN	Alfalfa Hay	Mixed Hay	Cereal Silage
Expected Yield per Acre	61.00 bu	80.00 bu	78.00 bu	78.00 bu	94.00 bu	44.00 bu	50.00 bu	2.25 t	2.50 t	7.08 t
Expected Market Price	5.90 /bu	5.20 /bu	3.40 /bu	5.00 /bu	2.55 /bu	10.50 /bu	7.50 /bu	90.00 /t	70.00 /t	42.00 /t
Crop Sales (\$/acre)	359.90	416.00	265.20	390.00	239.70	462.00	375.00	202.50	175.00	297.36
Direct Expenses:										
Seed, Cleaning & Treatment	30.00	25.00	18.75	27.50	18.13	46.38	41.63	12.85	3.53	18.44
Fertilizer (NPKS blend)	47.00 80-25-10-0	47.00 80-25-10-0	49.50 80-30-10-0	49.50 70-25-25-5	42.00 75-25-0-0	75.50 100-40-25-20	17.50 5-25-15-0	13.00 5-25-0-0	15.00 20-15-0-0	40.00 70-25-0-0
Chemical	36.07 *	36.07 *	16.62	36.07 *	13.92	28.71 *	34.56 *	1.91	1.52	13.92
Hail/Crop Insurance	22.25	21.93	17.54	17.54	17.76	22.47	20.44	NA	NA	NA
Trucking & Marketing	20.33	26.66	21.27	21.27	18.04	12.44	16.67	51.87	56.86	21.45
Fuel, Oil & Lube	19.98	19.07	18.72	18.95	21.25	21.51	22.26	10.12	12.14	21.25
Machinery Repairs	17.61	15.28	14.50	17.61	13.47	23.31	20.98	7.77	11.91	15.80
Building Repairs	1.04	2.59	2.59	2.07	3.63	2.07	3.63	1.55	1.04	1.04
Custom Work	5.04	5.29	5.54	5.54	7.06	5.54	5.04	17.14	5.54	35.28
Labour (Paid and Unpaid)	21.29	20.30	20.79	19.55	20.79	23.76	22.52	17.33	18.32	20.79
Utilities & Miscellaneous	11.30	11.30	11.30	11.30	11.30	13.76	13.76	6.86	6.39	7.85
Operating Interest	5.25	5.01	3.94	5.25	3.44	6.99	4.35	1.29	0.93	3.36
Total Direct Expense	237.16	235.51	201.07	232.16	190.78	282.44	223.32	141.68	133.19	199.18
Contribution Margin	122.74	180.49	64.13	157.84	48.92	179.56	151.68	60.82	41.81	98.18

Total Cost per Unit	6.16	4.68	4.35	4.75	3.50	9.57	7.24	91.73	79.16	37.27
Break-Even Yield	64.00 bu	72.00 bu	100.00 bu	75.00 bu	130.00 bu	41.00 bu	49.00 bu	2.29 t	2.83 t	6.28 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	53.22	26.09
Licenses and Insurance	10.96	4.70
Depreciation	53.96	29.91
Paid Capital Interest	21.77	4.67
Total Capital Costs	139.91	65.36
Adjusted Capital Costs	138.51	64.71

Questions?
 Rawlin Thangaraj 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry
 Note: Please refer to 2017 Methodology on Ropin the Web.

Prepared January 23, 2017

2017 Cropping Alternatives

2017 Production Costs and Returns (\$/acre)

Grey-Wooded (Peace Region)

Stubble Seeded Crops

<i>AgriProfit</i> [®]	Spring Wheat 2 CWRS 11.5%	CPS Wheat 1 CPSR	Feed Barley 1 CW	Malt Barley Select CW 2R	Milling Oats 3 CW	Argentine HT Canola 1 CAN	Polish Canola 1 CAN	Field Peas 2 CAN	Mixed Hay	Alfalfa Hay	Cereal Silage
Expected Yield per Acre	56.00 bu	65.00 bu	76.00 bu	76.00 bu	99.00 bu	39.00 bu	24.00 bu	50.00 bu	1.75 t	2.00 t	6.87 t
Expected Market Price	5.20 /bu	5.20 /bu	3.40 /bu	5.00 /bu	2.55 /bu	10.50 /bu	10.50 /bu	7.50 /bu	70.00 /t	90.00 /t	42.00 /t
Crop Sales (\$/acre)	291.20	338.00	258.40	380.00	252.45	409.50	252.00	375.00	122.50	180.00	288.54
Direct Expenses											
Seed, Cleaning & Treatment	24.00	20.00	15.00	22.00	14.50	37.10	21.84	38.16	3.53	12.85	14.75
Fertilizer (NPKS blend)	41.50 70-25-5-0	41.50 70-25-5-0	41.50 70-25-5-0	42.50 60-25-15-5	35.50 65-20-0-0	61.00 85-30-20-15	44.00 70-20-5-10	15.50 5-20-15-0	13.00 20-15-0-0	11.00 5-20-0-0	40.00 70-25-0-0
Chemical	36.07 *	36.07 *	16.62	36.07 *	13.92	28.71 *	17.28	34.56 *	1.52	1.91	13.92
Hail/Crop Insurance	18.03	19.45	15.22	15.22	19.27	21.86	14.02	20.44	NA	20.55	11.81
Trucking & Marketing	18.66	21.66	20.73	20.73	19.00	11.03	6.79	16.67	40.27	46.08	20.82
Fuel, Oil & Lube	10.96	11.23	11.58	13.29	12.14	13.78	12.87	13.81	14.88	15.18	22.26
Machinery Repairs	12.43	12.43	11.40	12.43	12.95	12.95	12.43	13.47	10.36	8.29	10.36
Building Repairs	3.89	3.11	2.07	2.07	2.59	4.40	2.07	3.11	1.55	1.04	1.55
Custom Work	3.02	3.02	6.05	6.30	4.54	3.53	2.77	5.04	0.00	0.00	38.81
Labour (Paid and Unpaid)	17.82	17.82	16.83	18.32	16.83	18.81	16.34	14.85	10.40	9.90	10.89
Utilities & Miscellaneous	11.30	11.30	11.30	11.30	11.30	13.76	9.79	9.79	6.39	6.39	6.39
Operating Interest	4.71	4.53	3.39	4.67	2.97	5.88	3.86	4.09	0.84	1.20	3.19
Total Direct Expense	202.40	202.14	171.68	204.90	165.51	232.82	164.06	189.47	102.74	134.37	194.75
Contribution Margin	88.80	135.86	86.72	175.10	86.94	176.68	87.94	185.53	19.76	45.63	93.79
Total Cost per Unit	5.66	4.87	3.76	4.20	2.83	8.90	11.60	6.08	87.72	92.57	35.74
Break-Even Yield	61.00 bu	61.00 bu	85.00 bu	64.00 bu	110.00 bu	34.00 bu	27.00 bu	41.00 bu	2.19 t	2.06 t	5.85 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	45.14	21.39
Licenses and Insurance	9.39	4.17
Depreciation	48.09	20.53
Paid Capital Interest	12.96	5.18
Total Capital Costs	115.58	51.28
Adjusted Capital Costs	114.43	50.77

Questions?
 Rawlin Thangaraj 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry
 Note: Please refer to 2017 Methodology on Ropin the Web.

Prepared January 23, 2017

2017 Cropping Alternatives

2017 Production Costs and Returns (\$/acre)

Irrigated Soils

Stubble Seeded Crops											
<i>AgriProfit</i> ®	Spring Wheat	CPS Wheat	Durum Wheat	Soft Wheat	Feed Barley	Malt Barley	Argentine HT Canola	Dry Beans	Alfalfa Hay	Cereal Silage	
	¹ CWRS 13.5%	¹ CPSR	¹ CWAD 13%	¹ CWSWS	¹ CW	Select CW 2R	¹ CAN	¹ CAN			
Expected Yield per Acre	96.00 bu	105.00 bu	103.00 bu	111.00 bu	125.00 bu	125.00 bu	58.00 bu	2459.00 lbs	4.00 t	11.38 t	
Expected Market Price	6.50 /bu	5.20 /bu	6.80 /bu	4.75 /bu	3.40 /bu	5.00 /bu	10.50 /bu	0.37 /lb	90.00 /t	42.00 /t	
Crop Sales (\$/acre)	624.00	546.00	700.40	527.25	425.00	625.00	609.00	909.83	360.00	477.96	
Direct Expenses											
Seed, Cleaning & Treatment	27.00	22.50	29.50	18.50	18.75	27.50	46.38	74.25	18.00	18.44	
Fertilizer (NPKS blend)	60.50 100-40-5-0	60.50 100-40-5-0	60.50 100-40-5-0	64.50 110-40-5-0	60.50 100-40-5-0	52.00 90-30-5-0	78.50 110-50-5-20	60.00 80-50-0-10	20.00 5-40-0-0	59.00 100-40-0-0	
Chemical	45.01	45.01	45.01	45.01	22.72	45.01	38.62	43.19	2.29	13.92	
Hail/Crop Insurance	13.30	17.53	16.48	11.24	13.09	13.09	20.41	54.26	NA	NA	
Trucking & Marketing	32.00	35.00	34.33	37.00	34.09	34.09	16.40	24.79	92.15	34.48	
Fuel, Oil & Lube	23.09	24.99	25.08	26.57	28.84	29.19	28.41	43.52	43.01	31.88	
Machinery Repairs	29.53	27.20	30.04	27.45	28.75	29.78	30.04	64.75	35.22	19.17	
Building Repairs	2.07	2.07	2.07	2.07	2.07	2.07	2.07	4.40	1.04	1.04	
Irrigation: Pumping Costs	22.63	23.13	22.88	23.13	18.44	18.44	19.48	18.59	31.50	19.83	
Custom Work	8.06	8.06	9.07	9.07	12.10	12.60	7.06	29.74	8.06	33.26	
Labour (Paid and Unpaid)	29.70	30.69	30.94	30.69	33.66	33.66	30.69	67.82	33.66	34.65	
Utilities & Miscellaneous	14.71	14.71	14.71	14.71	14.71	14.71	14.71	19.58	31.41	19.58	
Operating Interest	6.15	5.94	6.26	5.94	4.73	5.78	7.59	8.23	1.87	4.24	
Storage and/or Levies	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total Direct Expense	313.75	317.32	326.88	315.87	292.44	317.92	340.35	513.12	318.20	289.49	
Contribution Margin	310.25	228.68	373.52	211.38	132.56	307.08	268.65	396.71	41.80	188.47	
Total Cost per Unit	6.18	5.68	5.88	5.36	4.57	4.78	10.68	0.33	143.76	48.01	
Break-Even Yield	92.00 bu	115.00 bu	90.00 bu	126.00 bu	169.00 bu	120.00 bu	59.00 bu	2202.00 lbs	6.39 t	13.01 t	

Capital Costs by Enterprise	Crops	Forages	Specialty
Crop Share/Cash Rent	120.01	114.79	126.60
Licenses and Insurance	41.74	26.09	44.04
Depreciation	101.47	105.57	108.50
Paid Capital Interest	18.66	12.96	25.35
Total Capital Costs	281.88	259.41	304.50
Adjusted Capital Costs	279.06	256.82	301.45

Questions?
 Rawlin Thangaraj 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry
 Note: Please refer to 2017 Methodology on Ropin the Web.

Prepared January 23, 2017