
2021 cropping alternatives

Crop budget planning



Alberta

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2021 Cropping Alternatives (Crop Budget Planning)

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Cropping Alternatives Methodology

Disclaimer:

The following regional forecasts are based on the most current cost of production information from the AgriProfit\$ Business Analysis and 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 [Crop Budget Calculator](#) are available to customize your own crop budgets. You can download both CropChoice\$ software and the Crop Budget Calculator free of charge.

Prices:

Expected market prices are estimates ONLY, based on forecasts for the 2021 crop year. Prices in these budgets are estimated by Agriculture and Forestry specialists using several price outlook sources including Informa Economics forecasts, and Agriculture and Agri-Food Canada's Market Outlook Reports. Estimated prices are adjusted to reflect location differences and grade factors. Using one's own price estimates from knowledge of area markets and market outlook information is recommended.

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 adjusted upwards by 20 per cent for dryland soil zones and 15 per cent for irrigated zones. For red lentils, where long-term yields are not available, crop specialists' recommendations have 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 1,000 kernel weight for common varieties, 90-95 per cent germination, three to five per cent emergence mortality, and 9" spacing. Seeding rates for forages are based on 1,000 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 a combination of the fall 2020 prices, “pre-purchase” prices and fertilizer cost indications for spring 2021. Nitrogen, Phosphorous, Potassium, and Sulphur blends are based on estimated crop requirements for nutrient deficient, stubble-seeded crops in each soil zone.

Nitrogen	\$0.70/lb actual N	(\$705/tonne for 46-0-0)
Phosphorous	\$0.68/lb actual P	(\$950/tonne for 11-52-0)
Potassium	\$0.39/lb actual K	(\$520/tonne for 0-0-60)
Sulphur	\$0.33/lb actual S	(\$490/tonne for 20.5-0-0-24)

Soil testing is recommended to optimize the 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 used by producers to maximize production to fertilizer and input expenses. In a mature commodity market, managing costs could mean the difference between farm profitability and farm losses.

Chemical: (See the following Chemical Application Table.)

The 2021 chemical costs on stubble-seeded crops include a non-selective, pre-seed burn-off, and one in-crop herbicide application for broadleaf weeds, grassy weeds or both. For red lentils, 2020 chemical costs were used. Feed barley acreage sprayed for broadleaf weed control and a portion sprayed for wild oat control. Fungicides, insecticides and/or pre-harvest/desiccation applications (F/I/PH/D) are indicated by an asterisk (*).

Hail/Crop Insurance:

Insurance is based on information from Agriculture Financial Services Corporation (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 rates from cost suppliers. For hay, trucking and marketing costs are estimates from suppliers, assuming bales shipped are 1500 lb and distance hauled is between 50 and 100 kms. For silage, trucking and marketing costs are last year's estimates indexed for the 2021 year.

Fuel, Oil & Lube, Machinery Repairs, Building Repairs, Pumping Costs (Irrigation only), Labour (Paid and Unpaid), Utilities & Miscellaneous, Operating Interest, and Storage and/or Levies:

These costs are based on information collected by the AgriProfit\$ program, the Alberta Farm Input Prices Survey and irrigation specialists. Many of these costs are influenced significantly by differences in regional farming practices.

Operating Interest:

Four point five (4.5%) percent per annum for inputs financed (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.

Capital Costs by Enterprise:

Fixed costs generally do not vary greatly from crop to crop, but can vary between enterprises and soil zone regions. Average fixed cost profiles by enterprise are included for your information. The capital costs are indexed to reflect costs for the 2020 year.

Summerfallow:

The summerfallow column included in the Brown soil zone budget is only provided to reference the expected costs incurred in a non-crop year. Fallow-seeded crops are not included in this analysis because the summerfallow practice has significantly declined. Producers wanting to evaluate fallow-seeded crops can use CropChoice\$ and the Crop Budget Calculator.

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

Table 1. 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		2.25	30.94		2	27.50		2	27.50		2.25	30.94		2	27.50		2.5	34.38
cps wheat		2.25	27.00		2	24.00		2	24.00		2.25	27.00		2	24.00		2.5	30.00
durum wheat					2	31.00		2	31.00								2.25	34.88
soft white wheat																	2.25	27.00
winter wheat								2	25.00									
malt barley		2.25	29.25		2	26.00		2	26.00		2.25	29.25		2	26.00		2.5	32.50
feed barley		2.25	29.25		2	26.00		2	26.00		2.25	29.25		2	26.00		2.5	32.50
milling oats		3	23.40		3	23.40		3	23.40		3	23.40		3	23.40			
argentine canola	6		71.50	5		63.70	6		71.50	5		63.70	5		65.00	5		71.50
polish canola													4		23.00			
field pea		3.25	43.06		3	39.75		2.95	39.09		3	39.75		2.75	36.44			
yellow mustard				10		33.50	11		35.18									
chickpeas				120		50.40												
green lentils				90		37.80	90		37.80									
red lentils				60		21.00	60		21.00									
flax							65		28.60									
dry beans																60		49.50
cereal silage		2.75	22.69					2.25	18.56		2.25	18.56		2	16.50		2.5	20.63
mixed hay	11		3.94	10		3.73	10		3.73	11		3.94	11		3.94			
alfalfa hay	10		9.00							10		11.00	10		11.00	14		15.40

Table 2. Chemical Application by Alberta Soil Zones (\$/acre)

	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	3.54	24.84	7.74	3.36	23.60	6.44	3.36	23.60	6.44	3.54	24.84	4.84	3.54	24.84	4.84	3.54	24.84	9.68
cps wheat	3.54	24.84		3.36	23.60		3.36	23.60		3.54	24.84		3.54	24.84		3.54	24.84	
durum wheat				3.36	23.60	6.44	3.36	23.60	6.44							3.54	24.84	9.68
soft white wheat																3.54	24.84	9.68
winter wheat							3.36	12.33										
malt barley	3.54	24.84		3.36	23.60		3.36	23.60		3.54	24.84		3.54	24.84		3.54	24.84	9.68
feed barley	3.54	14.91		3.36	14.16		3.36	14.16		3.54	14.91		3.54	14.91		3.54	14.91	3.54
milling oats	3.54	8.68		3.36	8.24		3.54	8.68		3.54	8.68		3.54	8.68				
argentine canola	3.54	10.10		3.36	9.60		3.54	10.10		3.54	10.10		3.54	10.10		3.54	10.10	22.06
polish canola													3.54	12.12				
field pea	3.54	14.65	20.29	3.54	14.65		3.54	14.65	20.29	3.54	14.65	20.29	3.54	14.65	20.29			
yellow mustard				3.54	8.08		3.54	8.08										
chickpeas				9.85	12.12	19.99												
green lentils				19.19	17.93	23.84	19.19	17.75	23.84									
red lentils				19.00	17.75	23.60	19.00	17.93	23.60									
flax							3.54	15.86										
dry beans																3.54	15.15	0.00
cereal silage	3.54	8.68					3.54	8.68		3.54	8.68		3.54	8.68		3.54	8.68	
mixed hay	0.71			0.71			0.71			0.71			0.71					
alfalfa hay	0.88									0.88			0.88			1.06		

Table 3. 2021 Estimated Production Costs and Returns (\$/acre) Black Soils


Stubble Seeded Crops										
	Spring Wheat	CPS Wheat	Feed Barley	Malt Barley	Milling Oats	Argentine HT Canola	Field Peas	Mixed Hay	Alfalfa Hay	Cereal Silage
	2 CWRS 11.5%	1 CPSR	1 CW	Select CW 2R	2 CW	1 CAN	2 CAN			
Expected Yield per Acre	65.00 bu	72.00 bu	85.00 bu	83.00 bu	98.00 bu	46.00 bu	56.00 bu	2.25 t	2.50 t	7.50 t
Expected Market Price	7.30 /bu	6.90 /bu	5.80 /bu	6.75 /bu	4.25 /bu	13.35 /bu	9.00 /bu	90.00 /t	115.00 /t	72.00 /t
Crop Sales (\$/acre)	474.50	496.80	493.00	560.25	416.50	614.10	504.00	202.50	287.50	540.00
Direct Expenses:										
Seed, Cleaning & Treatment	30.94	27.00	29.25	29.25	23.40	71.50	43.06	3.94	9.00	22.69
Fertilizer (NPKS blend)	80.50 80-30-10-0	80.50 80-30-10-0	80.50 80-30-10-0	81.00 70-30-20-10	69.50 70-30-0-0	110.00 100-40-15-20	30.00 5-30-15-0	21.00 15-15-0-0	21.00 5-25-0-0	62.50 65-25-0-0
Chemical	37.02	37.02	18.44	37.02	12.52	32.07	39.44	0.72	0.91	12.52
Hail/Crop Insurance	11.33	14.89	11.21	13.27	11.63	13.33	14.58	NA	NA	NA
Trucking & Marketing	22.43	24.85	24.00	23.44	19.47	15.88	19.33	53.72	58.88	23.53
Fuel, Oil & Lube	25.96	23.51	24.56	27.01	27.36	26.66	33.68	11.23	7.02	44.20
Machinery Repairs	17.11	16.86	13.39	16.61	13.39	15.13	17.61	14.88	6.94	10.91
Building Repairs	2.02	5.05	2.02	5.55	2.78	2.27	4.54	5.05	3.03	3.53
Custom Work	2.13	2.13	2.39	3.19	4.79	2.66	5.32	2.13	4.79	5.32
Labour (Paid and Unpaid)	18.83	23.01	15.17	24.58	20.40	19.35	23.01	26.15	11.51	33.47
Utilities & Miscellaneous	12.11	12.11	12.11	12.11	12.11	14.75	14.75	7.35	7.35	8.41
Operating Interest	6.68	6.50	5.77	6.63	4.74	9.61	5.06	1.16	1.39	4.40
Total Direct Expense	267.06	273.44	238.81	279.67	222.10	333.20	250.38	147.32	131.81	231.49
Contribution Margin	207.44	223.36	254.19	280.58	194.40	280.90	253.62	55.18	155.69	308.51
Total Cost per Unit	6.40	5.87	4.56	5.17	3.79	10.49	7.14	111.33	93.99	44.62
Break-Even Yield	58.00 bu	62.00 bu	67.00 bu	64.00 bu	88.00 bu	37.00 bu	45.00 bu	2.78 t	2.04 t	4.65 t
Capital Costs by Enterprise										
	Crops	Forages								
Crop Share/Cash Rent	83.70	42.65								
Licenses and Insurance	12.24	6.12								
Depreciation	47.83	50.82								
Paid Capital Interest	6.93	4.62								
Total Capital Costs	150.70	104.21								
Adjusted Capital Costs	149.19	103.17								
			Questions? Call 780-422-4056 Production Crops Economist, Economics Section Alberta Agriculture and Forestry							
			Prepared Feb 21, 2021							

Table 4. 2021 Estimated Production Costs and Returns (\$/acre) Brown Soils

Stubble Seeded Crops													
AgriProfit\$	Spring	CPS	Durum	Feed	Malt	Milling	Argentine	Field	Red	Kabuli	Yellow	Mixed	Summer
	Wheat	Wheat	Wheat	Barley	Barley	Oats	HT Canola	Peas	Lentil	Chickpea	Mustard	Hay	Fallow
	1 CWRS 13.5%	1 CPSR	1 CWAD 13%	1 CW	Select CW 2R	2 CW	1 CAN	2 CAN	2 CAN	2 CW 8mm	1 CAN		
Expected Yield per Acre	38.00 bu	40.00 bu	40.00 bu	53.00 bu	53.00 bu	58.00 bu	30.00 bu	45.00 bu	1525.00 lbs	1463.00 lbs	661.00 lbs	1.50 t	0.00
Expected Market Price	7.50 /bu	7.00 /bu	7.35 /bu	6.00 /bu	6.85 /bu	4.25 /bu	13.50 /bu	9.00 /bu	0.25 /lb	0.24 /lb	0.39 /lb	90.00 /t	0.00
Crop Sales (\$/acre)	285.00	280.00	294.00	318.00	363.05	246.50	405.00	405.00	381.25	351.12	257.79	135.00	0.00
Direct Expenses:													
Seed, Cleaning & Treatment	27.50	24.00	31.00	26.00	26.00	23.40	63.70	39.75	37.80	50.40	33.50	3.73	0.00
Fertilizer (NPKS blend)	50.50 50-20-5-0	50.50 50-20-5-0	50.50 50-20-5-0	61.00 60-25-5-0	63.00 50-30-10-10	48.50 50-20-0-0	70.00 65-25-10-10	21.50 5-20-10-0	17.50 5-20-0-0	24.50 5-30-0-0	45.00 40-20-0-10	14.00 10-10-0-0	0.00
Chemical	36.03	36.03	36.03	18.90	36.03	12.52	29.81	39.44	65.35	43.01	11.91	0.72	3.59
Hail/Crop Insurance	9.85	14.92	11.75	10.89	12.89	9.15	15.38	13.66	17.77	14.60	11.84	NA	NA
Trucking & Marketing	13.12	13.81	13.81	14.97	14.97	11.53	8.79	15.53	8.93	8.57	3.87	35.71	0.00
Fuel, Oil & Lube	25.96	24.66	24.97	18.24	25.60	26.20	28.53	25.62	16.14	19.30	18.24	9.47	10.17
Machinery Repairs	14.63	11.16	11.90	8.43	7.94	9.92	7.94	10.66	7.94	8.93	8.43	9.92	8.93
Building Repairs	1.51	2.52	1.26	1.01	1.01	2.52	1.51	2.27	2.78	2.02	1.01	3.03	1.01
Custom Work	4.25	1.60	3.72	4.25	2.66	2.66	5.32	2.13	2.13	4.25	3.19	2.13	0.00
Labour (Paid and Unpaid)	21.97	18.30	18.30	16.74	16.74	14.64	19.35	13.86	13.60	15.69	14.12	16.74	10.46
Utilities & Miscellaneous	12.11	12.11	10.49	10.49	10.49	7.35	10.49	10.49	7.86	8.97	8.41	6.34	3.04
Operating Interest	5.13	4.97	5.29	4.77	5.63	3.80	7.36	4.53	5.43	5.31	4.07	0.83	0.16
Total Direct Expense	222.57	214.58	219.04	195.69	222.95	172.20	268.17	199.44	203.21	205.55	163.60	102.61	37.36
Contribution Margin	62.43	65.42	74.96	122.31	140.10	74.30	136.83	205.56	178.04	145.57	94.19	32.39	(37.36)
Total Cost per Unit	8.20	7.59	7.70	5.37	5.88	4.50	11.90	6.41	0.19	0.20	0.38	120.19	N/A
Break-Even Yield	42.00 bu	44.00 bu	42.00 bu	48.00 bu	46.00 bu	62.00 bu	27.00 bu	33.00 bu	1169.00 lbs	1227.00 lbs	648.00 lbs	2.00 t	N/A

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	43.19	33.59
Licenses and Insurance	6.12	8.90
Depreciation	28.70	32.88
Paid Capital Interest	11.81	3.08
Total Capital Costs	89.82	78.45
Adjusted Capital Costs	88.92	77.67

Questions?
 Call 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry

Prepared Feb 21, 2021

Table 5. 2021 Estimated Production Costs and Returns (\$/acre) Dark Brown Soils


Stubble Seeded Crops														
AgriProfit\$	Spring	CPS	Durum	Winter	Feed	Malt	Milling	Argentine	Field	Flax	Yellow	Red	Mixed	Cereal
	Wheat	Wheat	Wheat	Wheat	Barley	Barley	Oats	HT Canola	Peas		Mustard	Lentil	Hay	Silage
	¹ CWRS 13.5%	¹ CPSR	¹ CWAD 13%	Select CWRW	¹ CW	Select CW 2R	² 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	75.00 bu	35.00 bu	48.00 bu	21.00 bu	706.00 lbs	1500.00 lbs	1.75 t	5.73 t
Expected Market Price	7.35 /bu	7.00 /bu	7.30 /bu	6.95 /bu	5.85 /bu	6.80 /bu	4.40 /bu	13.50 /bu	9.00 /bu	15.00 /bu	0.39 /lb	0.24 /lb	90.00 /t	72.00 /t
Crop Sales (\$/acre)	323.40	343.00	299.30	319.70	368.55	428.40	330.00	472.50	432.00	315.00	275.34	360.00	157.50	412.56
Direct Expenses:														
Seed, Cleaning & Treatment	27.50	24.00	31.00	25.00	26.00	26.00	23.40	71.50	39.09	28.60	35.18	37.80	3.73	18.56
Fertilizer (NPKS blend)	61.00 60-25-5-0	61.00 60-25-5-0	61.00 60-25-5-0	61.00 60-25-5-0	68.00 70-25-5-0	72.00 60-30-15-10	52.00 55-20-0-0	82.00 75-30-10-15	21.50 5-20-10-0	48.50 50-20-0-0	55.50 50-25-0-10	21.00 5-25-0-0	17.50 10-15-0-0	55.50 60-20-0-0
Chemical	36.03	36.03	36.03	16.92	18.90	36.03	12.52	29.81	39.44	19.88	11.91	60.35 *	0.72	12.52
Hail/Crop Insurance	10.79	14.24	11.76	9.01	11.30	13.38	10.42	15.44	13.66	14.25	10.73	17.97	NA	NA
Trucking & Marketing	15.19	16.91	14.15	15.88	17.79	17.79	14.90	10.25	16.57	6.81	4.14	8.79	41.70	17.98
Fuel, Oil & Lube	22.76	25.98	26.76	25.94	17.54	24.62	22.15	26.80	26.67	20.51	18.24	16.14	12.35	18.24
Machinery Repairs	12.15	12.40	10.91	11.90	11.90	12.40	10.91	14.88	13.39	10.91	10.91	7.94	9.42	6.94
Building Repairs	1.01	1.51	1.01	1.01	2.02	2.52	1.01	1.51	1.77	1.51	1.51	2.78	2.52	1.26
Custom Work	2.13	3.19	3.19	3.19	6.38	6.38	2.13	5.32	3.19	8.51	4.79	2.13	10.10	42.54
Labour (Paid and Unpaid)	13.07	13.60	12.03	13.07	12.81	13.60	13.60	14.64	12.81	15.17	14.12	13.60	10.46	10.46
Utilities & Miscellaneous	12.11	12.11	10.49	10.49	10.49	10.49	7.35	10.49	10.49	10.49	10.49	7.86	7.35	8.41
Operating Interest	5.60	5.45	5.76	4.63	5.08	6.03	3.96	8.25	4.50	4.36	4.62	5.36	0.99	3.90
Total Direct Expense	219.35	226.43	224.10	198.05	208.22	241.24	174.35	290.90	203.07	189.50	182.13	201.70	116.86	196.32
Contribution Margin	104.05	116.57	75.20	121.65	160.33	187.16	155.65	181.60	228.93	125.50	93.21	158.30	40.64	216.24
Total Cost per Unit	7.16	6.58	7.80	6.39	4.83	5.35	3.60	11.05	6.23	13.59	0.39	0.18	107.77	46.78
Break-Even Yield	43.00 bu	47.00 bu	44.00 bu	43.00 bu	52.00 bu	50.00 bu	62.00 bu	29.00 bu	34.00 bu	20.00 bu	713.00 lbs	1139.32 lbs	2.10 t	3.72 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	55.50	34.50
Licenses and Insurance	5.29	5.56
Depreciation	29.89	18.53
Paid Capital Interest	6.16	13.87
Total Capital Costs	96.84	72.47
Adjusted Capital Costs	95.87	71.74

Questions?
 Call 780-422-4056
 Production Crops Economist, Economics Section
 Alberta Agriculture and Forestry

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Table 6. 2021 Estimated Production Costs and Returns (\$/acre) Grey-Wooded Soils


Stubble Seeded Crops										
	Spring	CPS	Feed	Malt	Milling	Argentine	Field	Alfalfa	Mixed	Cereal
	Wheat	Wheat	Barley	Barley	Oats	HT Canola	Peas	Hay	Hay	Silage
	2 CWRS 11.5%	1 CPSR	1 CW	Select CW 2R	2 CW	1 CAN	2 CAN			
Expected Yield per Acre	58.00 bu	70.00 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	7.25 /bu	6.85 /bu	5.75 /bu	6.70 /bu	4.25 /bu	13.25 /bu	8.75 /bu	115.00 /t	90.00 /t	72.00 /t
Crop Sales (\$/acre)	420.50	479.50	448.50	522.60	399.50	583.00	437.50	258.75	225.00	509.76
Direct Expenses:										
Seed, Cleaning & Treatment	30.94	27.00	29.25	29.25	23.40	63.70	39.75	11.00	3.94	18.56
Fertilizer (NPKS blend)	77.00 80-25-10-0	77.00 80-25-10-0	80.50 80-30-10-0	77.50 70-25-25-5	69.50 75-25-0-0	114.00 100-40-25-20	27.00 5-25-15-0	21.00 5-25-0-0	24.50 20-15-0-0	66.00 70-25-0-0
Chemical	34.05	34.05	18.90	34.05	12.52	25.29	39.44	0.91	0.72	12.52
Hail/Crop Insurance	15.42	18.65	14.76	17.48	12.86	14.59	13.59	NA	NA	NA
Trucking & Marketing	20.02	24.16	22.03	22.03	18.68	12.89	17.26	53.72	58.88	22.21
Fuel, Oil & Lube	38.77	35.50	25.96	36.43	29.47	29.82	30.87	14.03	16.84	29.47
Machinery Repairs	16.86	14.63	13.89	16.86	12.89	22.32	20.09	7.44	11.41	15.13
Building Repairs	1.01	2.52	2.52	2.02	3.53	2.02	3.53	1.51	1.01	1.01
Custom Work	5.32	5.58	5.85	5.85	7.45	5.85	5.32	18.08	5.85	37.23
Labour (Paid and Unpaid)	22.49	21.44	21.97	20.66	21.97	25.10	23.80	18.30	19.35	21.97
Utilities & Miscellaneous	12.11	12.11	12.11	12.11	12.11	14.75	14.75	7.35	6.84	8.41
Operating Interest	6.39	6.21	5.79	6.34	4.74	9.13	4.78	1.48	1.31	4.37
Total Direct Expense	280.37	278.86	253.53	280.58	229.12	339.45	240.17	154.83	150.66	236.88
Contribution Margin	140.13	200.64	194.97	242.02	170.38	243.55	197.33	103.92	74.34	272.88
Total Cost per Unit	7.46	6.16	5.20	5.55	4.06	11.17	7.85	99.88	88.23	43.33
Break-Even Yield	60.00 bu	63.00 bu	71.00 bu	65.00 bu	90.00 bu	38.00 bu	45.00 bu	1.95 t	2.45 t	4.26 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	65.50	30.50
Licenses and Insurance	11.68	5.01
Depreciation	55.00	30.49
Paid Capital Interest	21.57	4.62
Total Capital Costs	153.76	70.62
Adjusted Capital Costs	152.22	69.91

Questions?
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Alberta Agriculture and Forestry

Prepared Feb 21, 2021

Table 7. 2021 Estimated Production Costs and Returns (\$/acre) Grey-Wooded (Peace Region)

Stubble Seeded Crops											
	Spring	CPS	Feed	Malt	Milling	Argentine	Polish	Field	Mixed	Alfalfa	Cereal
	Wheat	Wheat	Barley	Barley	Oats	HT Canola	Canola	Peas	Hay	Hay	Silage
	2 CWRS 11.5%	1 CPSR	1 CW	Select CW 2R	2 CW	1 CAN	1 CAN	2 CAN			
Expected Yield per Acre	56.00 bu	65.00 bu	76.00 bu	76.00 bu	99.00 bu	39.00 bu	26.00 bu	50.00 bu	1.75 t	2.00 t	6.87 t
Expected Market Price	6.95 /bu	6.55 /bu	5.40 /bu	6.40 /bu	3.90 /bu	13.00 /bu	13.00 /bu	8.50 /bu	90.00 /t	115.00 /t	72.00 /t
Crop Sales (\$/acre)	389.20	425.75	410.40	486.40	386.10	507.00	338.00	425.00	157.50	230.00	494.64
Direct Expenses											
Seed, Cleaning & Treatment	27.50	24.00	26.00	26.00	23.40	65.00	23.00	36.44	3.94	11.00	16.50
Fertilizer (NPKS blend)	68.00 70-25-5-0	68.00 70-25-5-0	68.00 70-25-5-0	66.50 60-25-15-5	59.00 65-20-0-0	93.00 85-30-20-15	68.00 70-20-5-10	23.50 5-20-15-0	21.00 20-15-0-0	17.50 5-20-0-0	66.00 70-25-0-0
Chemical	34.05 *	34.05 *	18.90	34.05 *	12.52	25.29 *	16.05	39.44 *	0.72	0.91	12.52
Hail/Crop Insurance	12.41	15.47	12.41	14.70	14.60	14.33	9.78	13.59	NA	NA	NA
Trucking & Marketing	19.33	22.43	21.46	21.46	19.67	11.42	7.61	17.26	41.70	47.71	21.56
Fuel, Oil & Lube	35.11	36.00	37.10	42.59	28.07	44.16	57.84	44.26	28.62	21.05	30.87
Machinery Repairs	11.90	11.90	10.91	11.90	12.40	12.40	11.90	12.89	9.92	7.94	9.92
Building Repairs	3.79	3.03	2.02	2.02	2.52	4.29	2.02	3.03	1.51	1.01	1.51
Custom Work	3.19	3.19	5.85	6.65	4.79	3.72	2.92	5.32	0.00	0.00	40.95
Labour (Paid and Unpaid)	18.83	18.83	17.78	19.35	17.78	19.87	17.26	15.69	10.98	10.46	11.51
Utilities & Miscellaneous	12.11	12.11	12.11	12.11	12.11	14.75	10.49	10.49	6.84	6.84	6.84
Operating Interest	5.83	5.67	5.08	5.69	4.27	8.25	4.82	4.47	1.16	1.32	4.28
Total Direct Expense	252.05	254.69	237.63	263.03	211.14	316.48	231.70	226.38	126.40	125.74	222.46
Contribution Margin	137.15	171.06	172.77	223.37	174.96	190.52	106.30	198.62	31.10	104.26	272.18
Total Cost per Unit	6.62	5.75	4.69	5.02	3.33	11.16	13.48	6.90	102.39	89.27	40.06
Break-Even Yield	54.00 bu	58.00 bu	67.00 bu	60.00 bu	85.00 bu	34.00 bu	27.00 bu	41.00 bu	1.99 t	1.55 t	3.82 t
Capital Costs by Enterprise	Crops	Forages									
Crop Share/Cash Rent	48.13	22.81									
Licenses and Insurance	10.01	4.45									
Depreciation	49.02	20.92									
Paid Capital Interest	12.84	5.14									
Total Capital Costs	120.01	53.32									
Adjusted Capital Costs	118.81	52.79									

Questions?
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Table 8. 2021 Estimated Production Costs and Returns (\$/acre) Irrigated Soils

Stubble Seeded Crops										
AgriProfit\$	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	7.50 /bu	7.00 /bu	7.35 /bu	6.60 /bu	6.00 /bu	6.85 /bu	13.50 /bu	0.38 /lb	115.00 /t	72.00 /t
Crop Sales (\$/acre)	720.00	735.00	757.05	732.60	750.00	856.25	783.00	934.42	460.00	819.36
Direct Expenses										
Seed, Cleaning & Treatment	34.38	30.00	34.88	27.00	32.50	32.50	71.50	49.50	15.40	20.63
Fertilizer (NPKS blend)	99.50 100-40-5-0	99.50 100-40-5-0	99.50 100-40-5-0	106.50 110-40-5-0	99.50 100-40-5-0	85.50 90-30-5-0	120.00 110-50-5-20	94.00 80-50-0-10	31.50 5-40-0-0	97.50 100-40-0-0
Chemical	39.01	39.01	39.01	39.01	22.53	39.01	36.59	19.16	1.09	12.52
Hail/Crop Insurance	15.04	19.37	23.02	14.88	13.12	14.86	14.98	27.12	NA	NA
Trucking & Marketing	33.13	36.24	35.55	38.31	35.30	35.30	16.99	25.67	95.43	35.71
Fuel, Oil & Lube	42.85	46.36	46.53	36.84	38.59	54.15	52.70	60.34	59.64	44.20
Machinery Repairs	28.27	26.04	28.77	26.29	27.53	27.30	28.77	62.00	33.73	18.35
Building Repairs	2.02	2.02	2.02	2.02	2.02	2.02	2.02	4.29	1.01	1.01
Irrigation: Pumping Costs	23.54	24.06	23.80	24.06	19.57	19.57	20.26	19.33	31.62	20.62
Custom Work	8.51	8.51	9.57	9.57	12.76	13.30	7.45	31.38	8.51	35.10
Labour (Paid and Unpaid)	31.38	32.43	32.69	32.43	35.56	35.56	32.43	71.65	35.56	36.61
Utilities & Miscellaneous	15.76	15.76	15.76	15.76	15.76	15.76	15.76	20.98	33.66	20.98
Operating Interest	7.78	7.58	7.80	7.76	6.95	7.07	10.26	7.32	2.16	5.88
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	381.16	386.86	398.89	380.42	361.70	381.90	429.70	492.74	349.29	349.11
Contribution Margin	338.84	348.14	358.16	352.18	388.30	474.35	353.30	441.68	110.71	470.25

Total Cost per Unit	7.01	6.46	6.70	6.05	5.23	5.39	12.43	0.33	154.32	54.22
Break-Even Yield	90.00 bu	97.00 bu	94.00 bu	102.00 bu	109.00 bu	99.00 bu	54.00 bu	2124.00 lbs	5.37 t	8.57 t

Capital Costs by Enterprise	Crops	Forages	Specialty
Crop Share/Cash Rent	127.97	122.40	135.00
Licenses and Insurance	44.51	27.82	46.96
Depreciation	103.43	107.61	110.60
Paid Capital Interest	18.49	12.84	25.12
Total Capital Costs	294.40	270.68	317.67
Adjusted Capital Costs	291.45	267.97	314.50

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