

2019 Cropping Alternatives



Ministry of Agriculture and Forestry, Government of Alberta
April 2019
2019 Cropping Alternatives

Manglai
Crop Economist
Economics Section
Economics and Competitiveness Branch
Phone: (780) 422-4056
ml.manglai@gov.ab.ca

Any questions about the underlying assumptions or interpretation of this report can be addressed to Manglai.

Table of Contents

Cropping Alternatives Methodology	4
Table 1. Seeding Rate by Alberta Soil Zones	7
Table 2. Chemical Application by Alberta Soil Zones	7
Table 3. 2019 Production Costs and Returns (\$/acre) Black Soils	8
Table 4. 2019 Production Costs and Returns (\$/acre) Brown Soils	9
Table 5. 2019 Production Costs and Returns (\$/acre) Dark Brown Soils	10
Table 6. 2019 Production Costs and Returns (\$/acre) Grey-Wooded Soils	11
Table 7. 2019 Production Costs and Returns (\$/acre) Grey-Wooded (Peace Region)	12
Table 8. 2019 Production Costs and Returns (\$/acre) Irrigated Soils	13

Cropping Alternatives Methodology

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 **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 2019 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, 3-5 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 2018 prices, “pre-purchase” prices and fertilizer cost indications for spring 2019. Nitrogen, Phosphorous, Potassium, and Sulphur blends are based on estimated crop requirements for nutrient deficient, stubble-seeded crops in each soil zone.

Nitrogen	\$0.55/lb actual N	(\$560/tonne for 46-0-0)
Phosphorous	\$0.56/lb actual P	(\$760/tonne for 11-51-0)
Potassium	\$0.39/lb actual K	(\$510/tonne for 0-0-60)
Sulphur	\$0.51/lb actual S	(\$515/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 2019 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, 2019 chemical costs were used. Feed barley chemical cost is based on 50 per cent of the acres receiving an in-crop wild oat herbicide treatment. 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 2019 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:

Five per cent 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 2019 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		2.75	37.13		2	27.00		2.25	30.38		2.5	33.75		2	27.00		2.25	30.38
cps wheat		2.75	34.38		2	25.00		2.25	28.13		2.5	31.25		2	25.00		2.25	28.13
durum wheat					2	25.00		2	25.00								2	25.00
soft white wheat																	2	23.50
winter wheat								2.25	28.13									
malt barley		2.75	30.66		2	22.30		2.25	25.09		2.5	27.88		2	22.30		2.5	27.88
feed barley		2.75	27.78		2	20.20		2.25	22.73		2.5	25.25		2	20.20		2.5	25.25
milling oats		2.75	26.13		2.5	23.75		2.35	22.33		2.5	23.75		2	19.00			
argentine canola	6		72.88	4		53.00	6		72.88	5		66.25	4		53.00	5		72.88
polish canola													4		23.80			
field pea		3.25	45.01		3	41.55		2.95	40.86		3	41.55		2.75	38.09			
yellow mustard				10		23.00	11		24.15									
chickpeas				120		72.00												
green lentils				90		36.00	90		36.00									
red lentils				60		18.00	60		18.00									
flax							65		27.30									
dry beans																60		49.51
cereal silage		2.75	23.38					2.25	19.13		2.5	21.25		2	17.00		2.5	21.25
mixed hay	11		3.53	10		3.24	10		3.24	11		3.53	11		3.53			
alfalfa hay	10		10.63							10		13.13	10		13.13	14		18.38


Table 2. 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	5.56	26.87	16.18	5.28	25.52	13.45	5.28	25.52	13.45	5.56	26.87	10.11	5.56	26.87	10.11	5.56	26.87	20.23
cps wheat	5.56	26.87		5.28	25.52		5.28	25.52		5.56	26.87		5.56	26.87		5.56	26.87	
durum wheat				5.28	25.52	13.45	5.28	25.52	13.45							5.56	26.87	20.23
soft white wheat																5.56	26.87	20.23
winter wheat							5.28	8.73										
malt barley	5.56	26.87		5.28	25.52		5.28	25.52		5.56	26.87		5.56	26.87		5.56	26.87	20.23
feed barley	5.56	13.43		5.28	12.76		5.28	12.76		5.56	13.43		5.56	13.43		5.56	13.43	5.56
milling oats	5.56	9.19		5.28	8.73		5.56	9.19		5.56	9.19		5.56	9.19				
argentine canola	5.56	11.11		5.28	10.56		5.56	11.11		5.56	11.11		5.56	11.11		5.56	11.11	20.71
polish canola													5.56	12.12				
field pea	5.56	14.65	19.70	5.56	14.65		5.56	14.65	19.70	5.56	14.65	19.70	5.56	14.65				
yellow mustard				5.56	14.14		5.56	14.14										
chickpeas				11.87	13.13	19.99												
green lentils				19.20	17.93	23.84	19.20	17.75	23.84									
red lentils				19.00	17.75	23.60	19.00	17.93	23.60									
flax							5.56	10.61										
dry beans																5.56	15.15	22.73
cereal silage	5.56	9.19					5.56	9.19		5.56	9.19		5.56	9.19		5.56	9.19	
mixed hay	1.39			1.39			1.39			1.39			1.39					
alfalfa hay	1.74									1.74			1.74			2.08		

Table 3. 2019 Production Costs and Returns (\$/acre) Black Soils

2019 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	60.00 bu		70.00 bu		83.00 bu		83.00 bu		96.00 bu		46.00 bu		56.00 bu		2.25 t	2.50 t	7.57 t
Expected Market Price	6.10 /bu		5.70 /bu		4.10 /bu		5.05 /bu		3.25 /bu		10.50 /bu		7.00 /bu		80.00 /t	100.00 /t	48.00 /t
Crop Sales (\$/acre)	366.00		399.00		340.30		419.15		312.00		483.00		392.00		180.00	250.00	363.36
Direct Expenses:																	
Seed, Cleaning & Treatment	37.13		34.38		27.78		30.66		26.13		72.88		45.01		3.53	10.63	23.38
Fertilizer (NPKS blend)	70.50 80-30-10-0		70.50 80-30-10-0		70.50 80-30-10-0		73.00 70-30-20-10		60.50 70-30-0-0		100.00 100-40-15-20		27.00 5-30-15-0		18.00 15-15-0-0	18.00 5-25-0-0	54.50 65-25-0-0
Chemical	48.60		48.60		18.99		48.60		14.74		33.24		39.91		1.39	1.74	14.74
Hail/Crop Insurance	17.16		19.88		15.24		18.52		17.71		20.84		25.16		NA	NA	NA
Trucking & Marketing	21.11		24.63		23.90		23.90		19.45		16.19		19.70		54.76	60.03	24.22
Fuel, Oil & Lube	19.74		17.87		18.67		20.54		20.80		20.27		25.60		8.53	5.33	33.61
Machinery Repairs	17.97		17.71		14.06		17.45		14.06		15.89		18.49		15.63	7.29	11.46
Building Repairs	2.08		5.21		2.08		5.73		2.86		2.34		4.69		5.21	3.13	3.65
Custom Work	2.04		2.04		2.30		3.06		14.80		2.55		8.42		2.04	4.59	5.10
Labour (Paid and Unpaid)	18.39		22.47		14.81		24.01		19.92		18.90		22.47		25.54	11.24	32.69
Utilities & Miscellaneous	10.34		10.34		10.34		10.34		10.34		12.59		12.59		6.27	6.27	7.18
Operating Interest	7.89		7.75		5.92		7.69		5.12		10.41		5.65		1.16	1.53	4.68
Total Direct Expense	272.95		281.38		224.59		283.49		226.44		326.09		254.71		142.07	129.78	215.20
Contribution Margin	93.05		117.62		115.71		135.66		85.56		156.91		137.29		37.93	120.22	148.16
Total Cost per Unit	7.03		6.14		4.50		5.21		3.91		10.32		7.20		109.07	93.24	42.08
Break-Even Yield	70.00 bu		76.00 bu		92.00 bu		86.00 bu		116.00 bu		46.00 bu		58.00 bu		3.07 t	2.33 t	6.64 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	82.56	42.07
Licenses and Insurance	12.07	6.04
Depreciation	48.66	51.70
Paid Capital Interest	6.84	4.56
Total Capital Costs	150.14	104.37
Adjusted Capital Costs	148.63	103.33

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

Table 4. 2019 Production Costs and Returns (\$/acre) Brown Soils

2019 Production Costs and Returns (\$/acre)													Brown Soils	
Stubble Seeded Crops														
	Spring Wheat 1 CWRS 13.5%	CPS Wheat 1 CPSR	Durum Wheat 1 CWAD 13%	Feed Barley 1 CW	Malt Barley Select CW 2R	Milling Oats 2 CW	Argentine HT Canola 1 CAN	Field Peas 2 CAN	Red Lentil 2 CAN	Kabuli Chickpea 2 CW 8mm	Yellow Mustard 1 CAN	Mixed Hay	Summer Fallow	
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	6.70 /bu	5.15 /bu	6.75 /bu	4.25 /bu	5.25 /bu	3.25 /bu	10.50 /bu	7.00 /bu	0.19 /lb	0.30 /lb	0.35 /lb	80.00 /t	0.00	
Crop Sales (\$/acre)	254.60	206.00	270.00	225.25	278.25	188.50	315.00	315.00	289.75	438.90	231.35	120.00	0.00	
Direct Expenses:														
Seed, Cleaning & Treatment	27.00	25.00	25.00	20.20	22.30	23.75	53.00	41.55	36.00	72.00	23.00	3.24	0.00	
Fertilizer (NPKS blend)	44.50 50-20-5-0	44.50 50-20-5-0	44.50 50-20-5-0	53.50 60-25-5-0	57.00 50-30-10-10	42.50 50-20-0-0	63.00 65-25-10-10	19.00 5-20-10-0	15.00 5-20-0-0	21.00 5-30-0-0	41.00 40-20-0-10	12.00 10-10-0-0	0.00	
Chemical	46.86	46.86	46.86	19.10	46.86	14.83	31.35	40.15	65.35	45.27	19.82	1.40	16.60	
Hail/Crop Insurance	15.39	18.93	15.96	14.12	15.83	12.51	22.78	21.77	28.27	37.68	16.95	NA	NA	
Trucking & Marketing	13.37	14.07	14.07	15.26	15.26	11.75	8.96	15.83	9.11	8.74	3.95	36.40	0.00	
Fuel, Oil & Lube	15.01	14.25	14.43	13.87	14.80	15.15	16.49	14.81	12.27	14.67	13.87	7.20	7.73	
Machinery Repairs	15.36	11.72	12.50	8.85	8.33	10.42	8.33	11.20	8.33	9.38	8.85	10.42	9.38	
Building Repairs	1.56	2.60	1.30	1.04	1.04	2.60	1.56	2.34	2.86	2.08	1.04	3.13	1.04	
Custom Work	4.08	1.53	3.57	4.08	2.55	2.55	6.12	2.04	2.04	4.08	3.06	2.04	0.00	
Labour (Paid and Unpaid)	21.45	17.88	17.88	16.35	16.35	14.30	18.90	13.54	13.28	15.32	13.79	16.35	10.22	
Utilities & Miscellaneous	10.34	10.34	8.96	8.96	8.96	6.27	8.96	8.96	6.71	7.66	7.18	5.41	2.60	
Operating Interest	5.98	5.88	5.88	4.69	6.37	4.09	7.44	5.09	5.88	6.98	4.23	0.84	0.84	
Total Direct Expense	220.91	213.57	210.92	180.02	215.64	160.73	246.90	196.27	205.10	244.86	156.75	98.42	48.40	
Contribution Margin	33.69	(7.57)	59.08	45.23	62.61	27.77	68.10	118.73	84.65	194.04	74.60	21.58	(48.40)	
Total Cost per Unit	8.14	7.55	7.49	5.07	5.74	4.30	11.18	6.33	0.19	0.23	0.37	117.36	N/A	
Break-Even Yield	47.00 bu	59.00 bu	45.00 bu	64.00 bu	58.00 bu	77.00 bu	32.00 bu	41.00 bu	1546.00 lbs	1112.00 lbs	701.00 lbs	2.20 t	N/A	

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	42.60	33.13
Licenses and Insurance	6.04	8.78
Depreciation	29.20	33.46
Paid Capital Interest	11.85	3.04
Total Capital Costs	89.48	78.41
Adjusted Capital Costs	88.59	77.83

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

Table 5. 2019 Production Costs and Returns (\$/acre) Dark Brown Soils


2019 Production Costs and Returns (\$/acre) Dark Brown Soils

Stubble Seeded Crops														
AgriProfit\$	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 CWR\$ 13.5%	1 CP\$R	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	6.70 /bu	5.70 /bu	6.70 /bu	5.50 /bu	4.00 /bu	5.25 /bu	3.25 /bu	10.50 /bu	7.00 /bu	11.75 /bu	0.35 /lb	0.19 /lb	80.00 /t	48.00 /t
Crop Sales (\$/acre)	294.80	279.30	274.70	253.00	252.00	330.75	243.75	367.50	336.00	246.75	247.10	285.00	140.00	275.04
Direct Expenses:														
Seed, Cleaning & Treatment	30.38	28.13	25.00	28.13	22.73	25.09	22.33	72.88	40.86	27.30	24.15	36.00	3.24	19.13
Fertilizer (NPKS blend)	53.50 60-25-5-0	53.50 60-25-5-0	53.50 60-25-5-0	53.50 60-25-5-0	59.50 70-25-5-0	65.00 60-30-15-10	45.50 55-20-0-0	74.50 75-30-10-15	19.00 5-20-10-0	42.50 50-20-0-0	50.00 50-25-0-10	18.00 5-25-0-0	15.00 10-15-0-0	48.50 60-20-0-0
Chemical	46.86	46.86	46.86	14.83	19.10	46.86	14.83	31.35	40.15	16.26	19.82	60.35	1.40	14.83
Hail/Crop Insurance	16.56	19.73	17.16	12.96	12.08	17.73	13.71	24.40	21.77	18.68	15.33	28.27	NA	NA
Trucking & Marketing	15.48	17.24	14.43	16.19	18.14	18.14	15.19	10.45	16.89	6.94	4.22	8.96	42.51	18.33
Fuel, Oil & Lube	13.15	15.02	15.47	15.00	13.34	14.23	12.80	15.49	15.41	11.86	13.87	12.27	9.39	13.87
Machinery Repairs	12.76	13.02	11.46	12.50	12.50	13.02	11.46	15.63	14.06	11.46	11.46	8.33	9.90	7.29
Building Repairs	1.04	1.56	1.04	1.04	2.08	2.60	1.04	1.56	1.82	1.56	1.56	2.86	2.60	1.30
Custom Work	2.04	3.06	3.06	3.06	6.12	6.12	2.04	5.10	3.06	8.17	4.59	2.04	9.70	40.83
Labour (Paid and Unpaid)	12.77	13.28	11.75	12.77	12.51	13.28	13.28	14.30	12.51	14.81	13.79	13.28	10.22	10.22
Utilities & Miscellaneous	10.34	10.34	8.96	8.96	8.96	8.96	6.27	8.96	8.96	8.96	8.96	6.71	6.27	7.18
Operating Interest	6.60	6.49	6.33	4.87	5.12	6.92	4.17	9.03	5.05	4.35	4.75	5.77	0.99	4.16
Total Direct Expense	221.49	228.23	215.02	183.80	192.18	237.95	162.63	283.65	199.55	172.84	172.49	202.85	111.21	185.64
Contribution Margin	73.31	51.07	59.68	69.20	59.82	92.80	81.12	83.85	136.45	73.91	74.61	82.15	28.79	89.40
Total Cost per Unit	7.22	6.62	7.59	6.09	4.58	5.30	3.45	10.85	6.16	12.81	0.38	0.18	104.58	44.93
Break-Even Yield	48.00 bu	57.00 bu	47.00 bu	51.00 bu	73.00 bu	64.00 bu	80.00 bu	37.00 bu	43.00 bu	23.00 bu	768.00 lbs	1445.48 lbs	2.29 t	5.36 t

Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	55.50	34.50
Licenses and Insurance	5.21	5.49
Depreciation	30.41	18.88
Paid Capital Interest	6.08	13.88
Total Capital Costs	97.21	72.52
Adjusted Capital Costs	96.23	71.80

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


Table 6. 2019 Production Costs and Returns (\$/acre) Grey-Wooded Soils

2019 Production Costs and Returns (\$/acre)										Grey-Wooded Soils							
Stubble Seeded Crops																	
	Spring Wheat		CPS Wheat		Feed Barley		Malt Barley		Milling Oats		Argentine HT Canola		Field Peas		Alfalfa Hay	Mixed Hay	Cereal 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	5.90 /bu		5.70 /bu		3.85 /bu		5.05 /bu		3.25 /bu		10.50 /bu		7.00 /bu		100.00 /t	80.00 /t	48.00 /t
Crop Sales (\$/acre)	342.20		399.00		300.30		393.90		305.50		462.00		350.00		225.00	200.00	339.84
Direct Expenses:																	
Seed, Cleaning & Treatment	33.75		31.25		25.25		27.88		23.75		66.25		41.55		13.13	3.53	21.25
Fertilizer (NPKS blend)	67.50 80-25-10-0		67.50 80-25-10-0		70.50 80-30-10-0		69.50 70-25-25-5		61.00 75-25-0-0		104.00 100-40-25-20		24.00 5-25-15-0		18.00 5-25-0-0	21.00 20-15-0-0	57.50 70-25-0-0
Chemical	42.79		42.79		19.10		42.79		14.83		27.19		40.15		1.75	1.40	14.83
Hail/Crop Insurance	22.54		23.45		18.59		22.13		17.13		23.27		24.01		NA	NA	NA
Trucking & Marketing	20.41		24.63		22.46		22.46		19.04		13.14		17.59		54.76	60.03	22.65
Fuel, Oil & Lube	26.80		24.54		21.59		25.19		24.50		24.80		25.67		11.67	14.00	24.50
Machinery Repairs	17.71		15.36		14.58		17.71		13.54		23.44		21.09		7.81	11.98	15.89
Building Repairs	1.04		2.60		2.60		2.08		3.65		2.08		3.65		1.56	1.04	1.04
Custom Work	5.10		5.36		5.61		5.61		7.15		5.61		5.10		17.35	5.61	35.73
Labour (Paid and Unpaid)	21.96		20.94		21.45		20.18		21.45		24.52		23.24		17.88	18.90	21.45
Utilities & Miscellaneous	10.34		10.34		10.34		10.34		10.34		12.59		12.59		6.27	5.84	7.18
Operating Interest	7.27		7.15		5.80		7.08		5.03		9.97		5.34		1.66	1.31	4.73
Total Direct Expense	272.83		275.92		237.88		272.94		221.41		334.73		243.98		151.84	144.65	226.75
Contribution Margin	69.37		123.08		62.42		120.96		84.09		127.27		106.02		73.16	55.35	113.09
Total Cost per Unit	7.34		6.12		5.01		5.46		3.98		11.08		7.93		98.73	85.98	41.96
Break-Even Yield	73.00 bu		76.00 bu		102.00 bu		85.00 bu		116.00 bu		47.00 bu		57.00 bu		2.22 t	2.69 t	6.19 t
Capital Costs by Enterprise	Crops		Forages														
Crop Share/Cash Rent	65.50		30.50														
Licenses and Insurance	11.53		4.94														
Depreciation	55.96		31.02														
Paid Capital Interest	21.27		4.56														
Total Capital Costs	154.26		71.02														
Adjusted Capital Costs	152.72		70.31														

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

Table 7. 2019 Production Costs and Returns (\$/acre) Grey-Wooded (Peace Region)

2019 Production Costs and Returns (\$/acre) Grey-Wooded (Peace Region)

Stubble Seeded Crops											
	Spring Wheat	CPS Wheat	Feed Barley	Malt Barley	Milling Oats	Argentine HT Canola	Polish Canola	Field Peas	Mixed Hay	Alfalfa Hay	Cereal 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	5.90 /bu	5.60 /bu	3.80 /bu	4.95 /bu	3.05 /bu	10.30 /bu	10.30 /bu	6.75 /bu	80.00 /t	100.00 /t	48.00 /t
Crop Sales (\$/acre)	330.40	364.00	288.80	376.20	301.95	401.70	267.80	337.50	140.00	200.00	329.76
Direct Expenses											
Seed, Cleaning & Treatment	27.00	25.00	20.20	22.30	19.00	53.00	23.80	38.09	3.53	13.13	17.00
Fertilizer (NPKS blend)	59.50 70-25-5-0	59.50 70-25-5-0	59.50 70-25-5-0	60.00 60-25-15-5	51.50 65-20-0-0	84.50 85-30-20-15	61.50 70-20-5-10	21.00 5-20-15-0	18.00 20-15-0-0	15.00 5-20-0-0	57.50 70-25-0-0
Chemical	42.79 *	42.79 *	19.10	42.79 *	14.83	27.19 *	17.79	40.15 *	1.40	1.75	14.83
Hail/Crop Insurance	18.66	20.53	16.13	19.30	18.47	22.28	14.66	24.01	NA	20.55	11.81
Trucking & Marketing	19.70	22.87	21.88	21.88	20.06	11.64	7.76	17.59	42.51	48.64	21.98
Fuel, Oil & Lube	28.61	29.34	30.23	34.71	25.34	35.99	42.56	36.07	23.32	19.00	27.87
Machinery Repairs	12.50	12.50	11.46	12.50	13.02	13.02	12.50	13.54	10.42	8.33	10.42
Building Repairs	3.91	3.13	2.08	2.08	2.60	4.43	2.08	3.13	1.56	1.04	1.56
Custom Work	3.06	3.06	6.12	6.38	4.59	3.57	2.81	5.10	0.00	0.00	39.30
Labour (Paid and Unpaid)	18.39	18.39	17.37	18.90	17.37	19.41	16.86	15.32	10.73	10.22	11.24
Utilities & Miscellaneous	10.34	10.34	10.34	10.34	10.34	12.59	8.96	8.96	5.84	5.84	5.84
Operating Interest	6.53	6.43	4.99	6.32	4.31	8.32	5.21	5.01	1.16	1.51	4.51
Total Direct Expense	251.00	253.88	219.41	257.50	201.43	295.94	216.47	227.97	118.47	145.01	223.85
Contribution Margin	79.40	110.12	69.39	118.70	100.52	105.76	51.33	109.53	21.53	54.99	105.91
Total Cost per Unit	6.60	5.73	4.45	4.95	3.23	10.63	12.89	6.93	97.82	98.86	40.26
Break-Even Yield	63.00 bu	67.00 bu	89.00 bu	77.00 bu	105.00 bu	41.00 bu	33.00 bu	52.00 bu	2.14 t	1.98 t	5.76 t


Capital Costs by Enterprise	Crops	Forages
Crop Share/Cash Rent	47.48	22.50
Licenses and Insurance	9.88	4.39
Depreciation	49.88	21.29
Paid Capital Interest	12.66	5.06
Total Capital Costs	119.90	53.25
Adjusted Capital Costs	118.70	52.72

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

Table 8. 2019 Production Costs and Returns (\$/acre) Irrigated Soils

2019 Production Costs and Returns (\$/acre)

Irrigated Soils

Stubble Seeded Crops										
	Spring	CPS	Durum	Soft	Feed	Malt	Argentine	Dry	Alfalfa	Cereal
	Wheat 1 CWRS 13.5%	Wheat 1 CPSR	Wheat 1 CWAD 13%	Wheat 1 CWSWS	Barley 1 CW	Barley Select CW 2R	HT Canola 1 CAN	Beans 1 CAN	Hay	Silage
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	6.70 /bu	5.70 /bu	6.70 /bu	5.25 /bu	4.25 /bu	5.20 /bu	10.50 /bu	0.35 /lb	100.00 /t	50.00 /t
Crop Sales (\$/acre)	643.20	598.50	690.10	582.75	531.25	650.00	609.00	860.65	400.00	569.00
Direct Expenses										
Seed, Cleaning & Treatment	30.38	28.13	25.00	23.50	25.25	27.88	72.88	49.51	18.38	21.25
Fertilizer (NPKS blend)	87.00 100-40-5-0	87.00 100-40-5-0	87.00 100-40-5-0	93.00 110-40-5-0	87.00 100-40-5-0	75.00 90-30-5-0	108.50 110-50-5-20	83.50 80-50-0-10	27.00 5-40-0-0	85.00 100-40-0-0
Chemical	52.97	52.97	52.97	52.97	24.69	52.97	37.60	43.70	2.10	14.83
Hail/Crop Insurance	14.10	18.58	17.47	11.91	13.88	13.88	21.63	45.58	NA	NA
Trucking & Marketing	33.78	36.95	36.24	39.06	35.99	35.99	17.32	26.17	97.29	36.40
Fuel, Oil & Lube	24.77	26.79	26.89	28.01	29.34	31.30	30.46	45.88	45.34	33.61
Machinery Repairs	29.69	27.34	30.21	27.60	28.91	30.11	30.21	65.10	35.42	19.27
Building Repairs	2.08	2.08	2.08	2.08	2.08	2.08	2.08	4.43	1.04	1.04
Irrigation: Pumping Costs	22.63	23.13	22.88	23.13	18.82	18.82	19.48	18.59	32.40	19.83
Custom Work	8.17	8.17	9.19	9.19	12.25	12.76	7.15	30.11	8.17	33.68
Labour (Paid and Unpaid)	30.65	31.67	31.92	31.67	34.73	34.73	31.67	69.98	34.73	35.75
Utilities & Miscellaneous	13.46	13.46	13.46	13.46	13.46	13.46	13.46	17.91	28.73	17.91
Operating Interest	8.60	8.49	8.33	8.56	6.92	7.87	11.06	8.92	2.40	6.11
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	359.16	364.75	363.64	364.13	333.31	356.84	403.49	509.39	332.98	324.70
Contribution Margin	284.04	233.75	326.46	218.62	197.94	293.16	205.51	351.26	67.02	244.30
Total Cost per Unit	6.77	6.24	6.35	5.90	4.99	5.18	11.97	0.33	150.15	52.05
Break-Even Yield	97.00 bu	115.00 bu	98.00 bu	125.00 bu	147.00 bu	125.00 bu	67.00 bu	2351.00 lbs	6.01 t	11.85 t
Capital Costs by Enterprise	Crops	Forages	Specialty							
Crop Share/Cash Rent	126.23	120.74	133.17							
Licenses and Insurance	43.91	27.44	46.32							
Depreciation	105.23	109.49	112.53							
Paid Capital Interest	18.23	12.66	24.77							
Total Capital Costs	293.61	270.34	316.79							
Adjusted Capital Costs	290.67	267.64	313.62							

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