
2021 cost and return benchmarks for crops and forages: brown soil zone

AgriProfit\$ business analysis and research program



Agriculture and Irrigation
Government of Alberta

Emmanuel Oduro Okata
Production Crops Economist
Phone: 780-422-4056
Emmanuel.Okata@gov.ab.ca

Economics Section
Trade, Economics and Data Analytics Branch
#300, 7000-113 Street
Edmonton, Alberta T6H 5T6

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Overview

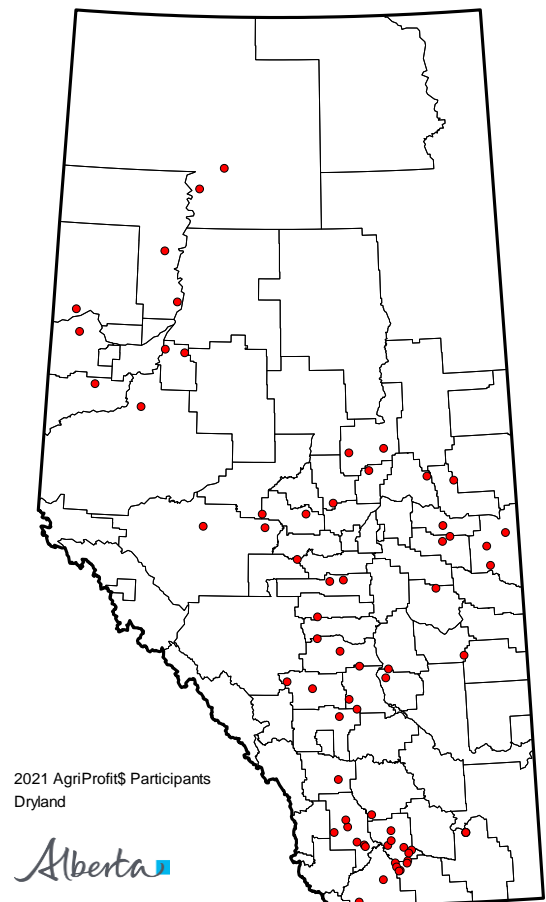
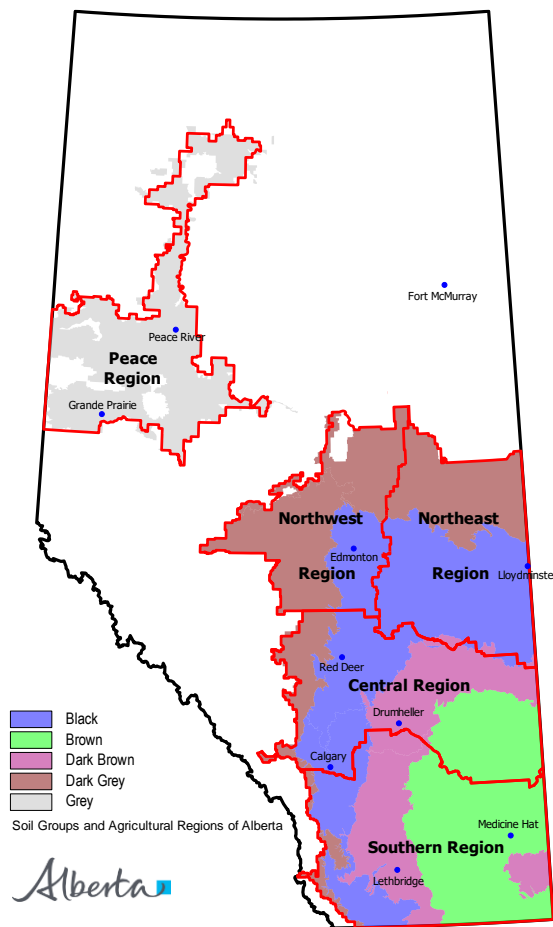
2021 Brown Soil Zone

The AgriProfit\$ Business Analysis and Research Program provides a provincial overview of costs and returns for field crops and forages. The Trade, Economics and Data Analytics Branch collects cost of production information annually from Alberta producers to generate regional and provincial benchmarks. Producer participants are critical to providing a financial representation of Alberta's cropping industry.

The AgriProfit\$ cropping benchmarks are analyzed by soil zone groups, top third producers, and owned land versus rented land where available. Top third averages are calculated from fields that have the highest return to equity. Analyzing crops by owned versus rented also provides insight into differences in management.

Benchmarks allow for comparison of individual crop costs and returns to other farms in a similar production area. Benchmarks should not replace individual cropping and financial records. There is a danger of over or underestimating costs and returns if basing them on regional and provincial benchmarks and forecasts. Strategic planning is more effective when individual costs are used. Managing unit costs of production is one of the most significant strategies to ensure profitability in a mature commodity market.

The left map shows the various soil zones in Alberta. Please note that farms highlighted within these zones may contain characteristics of neighbouring soil zones. The map on the right shows the distribution of the 2021 dryland participants.



2021 Crops Enterprise Analysis All Dryland Spring Wheat

	Average \$/Acres	Top 1/3	Average \$/Bushel	Top 1/3
(A)				
1. Crop Sales	526.49	672.90	11.61	11.04
2. Crop Insurance Receipts	57.61	7.28	1.27	.12
3. Miscellaneous Receipts	.00	.00	.00	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	584.10	680.18	12.88	11.16
(B)				
1. Seed & Seed Cleaning	20.71	18.20	.46	.30
2. Fertilizer	102.51	103.76	2.26	1.70
3. Chemicals	38.58	49.09	.85	.81
4. Hail / Crop Insurance & Program Premiums	10.82	3.93	.24	.06
5. Trucking & Marketing	1.71	.19	.04	.00
6. Fuel	19.14	19.76	.42	.32
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	15.33	16.42	.34	.27
9. Repairs - Buildings	1.56	2.57	.03	.04
10. Utilities & Miscellaneous Expenses	12.22	16.86	.27	.28
11. Custom Work & Specialized Labour	.96	1.82	.02	.03
12. Operating Interest Paid	7.34	9.53	.16	.16
13. Paid Labour & Benefits	11.27	12.94	.25	.21
14. Unpaid Labour	17.76	19.41	.39	.32
VARIABLE COSTS	259.91	274.49	5.73	4.50
(C)				
1. Cash/Share Rent & Land Lease	13.40	.00	.30	.00
2. Taxes, Water Rates, Lic. & Insurance	9.20	9.81	.20	.16
3. Equipment & Buildings	35.08	40.08	.77	.66
a) Depreciation	4.18	7.92	.09	.13
b) Lease Payments	2.01	1.43	.04	.02
4. Paid Capital Interest	2.01	1.43	.04	.02
TOTAL CAPITAL COSTS	63.88	59.24	1.41	.97
(D) CASH COSTS	(B+C-B14-C3a)	270.96	274.24	5.97
(E) TOTAL PRODUCTION COSTS	(B+C)	323.79	333.73	7.14
(F) GROSS MARGIN	(A-D)	313.15	405.95	6.90
RETURN TO UNPAID LABOUR	(A-E+B14)	278.07	365.87	6.13
RETURN TO INVESTMENT	(A-E+C4)	262.32	347.88	5.78
RETURN TO EQUITY	(A-E)	260.31	346.45	5.74
INVESTMENT				
Land	3,745.78	4,242.79	82.57	69.59
Buildings	111.37	129.48	2.45	2.12
Machinery	326.16	385.48	7.19	6.32
Irr. Machinery	.00	.00	.00	.00
TOTAL	4,183.31	4,757.76	92.21	78.03
MANAGEMENT				
Yield Per Acre (Bushel)	45.37	60.97		
Expected Market Price Per Bushel	11.61	11.04		

2021 Crops Enterprise Analysis

All Dryland Feed Barley

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Bushel	
(A)				
1. Crop Sales	491.66	684.61	8.65	8.55
2. Crop Insurance Receipts	42.55	81.03	.75	1.01
3. Miscellaneous Receipts	.00	.00	.00	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	534.21	765.64	9.40	9.56
(B)				
1. Seed & Seed Cleaning	22.35	22.66	.39	.28
2. Fertilizer	98.92	114.75	1.74	1.43
3. Chemicals	40.11	49.81	.71	.62
4. Hail / Crop Insurance & Program Premiums	11.85	15.65	.21	.20
5. Trucking & Marketing	1.27	1.68	.02	.02
6. Fuel	16.73	23.31	.29	.29
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	14.77	10.11	.26	.13
9. Repairs - Buildings	2.31	2.10	.04	.03
10. Utilities & Miscellaneous Expenses	13.93	17.86	.25	.22
11. Custom Work & Specialized Labour	9.14	5.46	.16	.07
12. Operating Interest Paid	6.85	5.45	.12	.07
13. Paid Labour & Benefits	10.48	6.82	.18	.09
14. Unpaid Labour	19.68	32.51	.35	.41
VARIABLE COSTS	268.39	308.18	4.72	3.85
(C)				
1. Cash/Share Rent & Land Lease	35.52	77.61	.62	.97
2. Taxes, Water Rates, Lic. & Insurance	8.68	5.84	.15	.07
3. Equipment & Buildings	30.13	24.29	.53	.30
a) Depreciation	6.49	14.18	.11	.18
b) Lease Payments	.31	.00	.01	.00
4. Paid Capital Interest	.31	.00	.01	.00
TOTAL CAPITAL COSTS	81.14	121.91	1.43	1.52
(D) CASH COSTS	(B+C-B14-C3a)	299.71	373.29	5.27
(E) TOTAL PRODUCTION COSTS	(B+C)	349.53	430.09	6.15
(F) GROSS MARGIN	(A-D)	234.50	392.34	4.12
RETURN TO UNPAID LABOUR	(A-E+B14)	204.36	368.06	3.59
RETURN TO INVESTMENT	(A-E+C4)	185.00	335.55	3.25
RETURN TO EQUITY	(A-E)	184.68	335.55	3.25
INVESTMENT				
Land	2,420.36	588.77	42.57	7.35
Buildings	106.49	96.59	1.87	1.21
Machinery	284.71	242.68	5.01	3.03
Irr. Machinery	.00	.00	.00	.00
TOTAL	2,811.56	928.04	49.45	11.59
MANAGEMENT				
Yield Per Acre (Bushel)	56.86	80.11		
Expected Market Price Per Bushel	8.65	8.55		

2021 Crops Enterprise Analysis

All Dryland Flax

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Bushel	
(A)				
1. Crop Sales	457.37	630.00	27.50	35.00
2. Crop Insurance Receipts	101.70	148.03	6.11	8.22
3. Miscellaneous Receipts	.00	.00	.00	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	559.06	778.03	33.61	43.22
(B)				
1. Seed & Seed Cleaning	18.39	20.00	1.11	1.11
2. Fertilizer	87.47	110.00	5.26	6.11
3. Chemicals	31.96	22.00	1.92	1.22
4. Hail / Crop Insurance & Program Premiums	28.13	31.20	1.69	1.73
5. Trucking & Marketing	2.33	4.09	.14	.23
6. Fuel	19.19	18.72	1.15	1.04
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	9.44	7.01	.57	.39
9. Repairs - Buildings	2.66	.48	.16	.03
10. Utilities & Miscellaneous Expenses	12.27	5.78	.74	.32
11. Custom Work & Specialized Labour	2.55	.00	.15	.00
12. Operating Interest Paid	3.94	6.69	.24	.37
13. Paid Labour & Benefits	9.53	10.26	.57	.57
14. Unpaid Labour	14.71	4.30	.88	.24
VARIABLE COSTS	242.58	240.53	14.59	13.36
(C)				
1. Cash/Share Rent & Land Lease	61.89	88.00	3.72	4.89
2. Taxes, Water Rates, Lic. & Insurance	6.86	3.95	.41	.22
3. Equipment & Buildings	23.36	22.33	1.40	1.24
a) Depreciation	4.58	.00	.28	.00
b) Lease Payments	.00	.00	.00	.00
4. Paid Capital Interest	.00	.00	.00	.00
TOTAL CAPITAL COSTS	96.70	114.28	5.81	6.35
(D) CASH COSTS	(B+C-B14-C3a)	301.21	328.17	18.11
(E) TOTAL PRODUCTION COSTS	(B+C)	339.28	354.81	20.40
(F) GROSS MARGIN	(A-D)	257.86	449.86	15.50
RETURN TO UNPAID LABOUR	(A-E+B14)	234.50	427.53	14.10
RETURN TO INVESTMENT	(A-E+C4)	219.78	423.23	13.21
RETURN TO EQUITY	(A-E)	219.78	423.23	13.21
INVESTMENT				
Land	1,150.88	.00	69.20	.00
Buildings	103.55	74.34	6.23	4.13
Machinery	202.96	191.90	12.20	10.66
Irr. Machinery	.00	.00	.00	.00
TOTAL	1,457.39	266.24	87.63	14.79
MANAGEMENT				
Yield Per Acre (Bushel)	16.63	18.00		
Expected Market Price Per Bushel	27.50	35.00		

2021 Crops Enterprise Analysis

All Dryland Liberty Link Canola

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Bushel	
(A)				
1. Crop Sales	556.95	684.37	21.15	20.00
2. Crop Insurance Receipts	86.26	.00	3.28	.00
3. Miscellaneous Receipts	.00	.00	.00	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	643.21	684.37	24.42	20.00
(B)				
1. Seed & Seed Cleaning	70.81	60.00	2.69	1.75
2. Fertilizer	78.42	45.00	2.98	1.32
3. Chemicals	28.24	14.00	1.07	.41
4. Hail / Crop Insurance & Program Premiums	9.76	6.65	.37	.19
5. Trucking & Marketing	.14	.54	.01	.02
6. Fuel	14.91	16.66	.57	.49
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	19.77	40.41	.75	1.18
9. Repairs - Buildings	3.73	.18	.14	.01
10. Utilities & Miscellaneous Expenses	11.93	11.69	.45	.34
11. Custom Work & Specialized Labour	.00	.00	.00	.00
12. Operating Interest Paid	11.49	.00	.44	.00
13. Paid Labour & Benefits	10.88	2.86	.41	.08
14. Unpaid Labour	19.59	60.21	.74	1.76
VARIABLE COSTS	279.70	258.20	10.62	7.55
(C)				
1. Cash/Share Rent & Land Lease	38.74	18.56	1.47	.54
2. Taxes, Water Rates, Lic. & Insurance	8.07	4.13	.31	.12
3. Equipment & Buildings	49.32	59.09	1.87	1.73
a) Depreciation	.00	.00	.00	.00
b) Lease Payments	.00	.00	.00	.00
4. Paid Capital Interest	2.70	9.49	.10	.28
TOTAL CAPITAL COSTS	98.83	91.27	3.75	2.67
(D) CASH COSTS	(B+C-B14-C3a)	309.62	230.16	11.76
(E) TOTAL PRODUCTION COSTS	(B+C)	378.53	349.47	14.37
(F) GROSS MARGIN	(A-D)	333.59	454.21	12.67
RETURN TO UNPAID LABOUR	(A-E+B14)	284.28	395.12	10.79
RETURN TO INVESTMENT	(A-E+C4)	267.38	344.40	10.15
RETURN TO EQUITY	(A-E)	264.68	334.91	10.05
INVESTMENT				
Land	1,998.26	2,805.59	75.88	81.99
Buildings	138.12	166.27	5.24	4.86
Machinery	460.23	537.38	17.48	15.70
Irr. Machinery	.00	.00	.00	.00
TOTAL	2,596.60	3,509.23	98.60	102.55
MANAGEMENT				
Yield Per Acre (Bushel)	26.33	34.22		
Expected Market Price Per Bushel	21.15	20.00		

2021 Crops Enterprise Analysis

All Dryland Roundup Ready Canola

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Bushel	
(A)				
1. Crop Sales	442.41	720.00	17.37	18.00
2. Crop Insurance Receipts	114.21	.00	4.48	.00
3. Miscellaneous Receipts	.00	.00	.00	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	556.62	720.00	21.85	18.00
(B)				
1. Seed & Seed Cleaning	73.53	85.00	2.89	2.13
2. Fertilizer	123.50	135.00	4.85	3.38
3. Chemicals	30.76	43.00	1.21	1.08
4. Hail / Crop Insurance & Program Premiums	23.67	18.00	.93	.45
5. Trucking & Marketing	3.31	.63	.13	.02
6. Fuel	21.22	28.87	.83	.72
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	8.32	12.33	.33	.31
9. Repairs - Buildings	.79	1.82	.03	.05
10. Utilities & Miscellaneous Expenses	10.76	27.02	.42	.68
11. Custom Work & Specialized Labour	4.24	18.00	.17	.45
12. Operating Interest Paid	5.34	1.74	.21	.04
13. Paid Labour & Benefits	9.18	4.16	.36	.10
14. Unpaid Labour	16.38	55.74	.64	1.39
VARIABLE COSTS	331.01	431.31	13.00	10.78
(C)				
1. Cash/Share Rent & Land Lease	67.29	.00	2.64	.00
2. Taxes, Water Rates, Lic. & Insurance	4.54	6.32	.18	.16
3. Equipment & Buildings	21.90	21.57	.86	.54
a) Depreciation				
b) Lease Payments	6.14	26.09	.24	.65
4. Paid Capital Interest	1.11	4.70	.04	.12
TOTAL CAPITAL COSTS	100.98	58.68	3.96	1.47
(D) CASH COSTS	(B+C-B14-C3a)	393.71	412.68	15.46
(E) TOTAL PRODUCTION COSTS	(B+C)	431.99	489.99	16.96
(F) GROSS MARGIN	(A-D)	162.91	307.32	6.40
RETURN TO UNPAID LABOUR	(A-E+B14)	141.01	285.75	5.54
RETURN TO INVESTMENT	(A-E+C4)	125.74	234.71	4.94
RETURN TO EQUITY	(A-E)	124.63	230.01	4.89
INVESTMENT				
Land	1,217.65	5,175.00	47.81	129.38
Buildings	80.41	106.09	3.16	2.65
Machinery	201.01	238.71	7.89	5.97
Irr. Machinery	.00	.00	.00	.00
TOTAL	1,499.07	5,519.81	58.86	138.00
MANAGEMENT				
Yield Per Acre (Bushel)	25.47	40.00		
Expected Market Price Per Bushel	17.37	18.00		

2021 Crops Enterprise Analysis

All Dryland Alfalfa Hay

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Tonne	
(A)				
1. Crop Sales	231.52	234.00	174.68	180.00
2. Crop Insurance Receipts	.00	.00	.00	.00
3. Miscellaneous Receipts	.00	.00	.00	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	231.52	234.00	174.68	180.00
(B)				
1. Seed & Seed Cleaning	4.49	6.05	3.39	4.65
2. Fertilizer	31.39	42.30	23.69	32.54
3. Chemicals	10.13	13.65	7.64	10.50
4. Hail / Crop Insurance & Program Premiums	.00	.00	.00	.00
5. Trucking & Marketing	.29	.00	.22	.00
6. Fuel	4.86	3.08	3.67	2.37
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	20.55	19.02	15.51	14.63
9. Repairs - Buildings	.72	.48	.54	.37
10. Utilities & Miscellaneous Expenses	5.50	3.60	4.15	2.77
11. Custom Work & Specialized Labour	14.84	20.00	11.20	15.38
12. Operating Interest Paid	2.24	2.67	1.69	2.05
13. Paid Labour & Benefits	8.15	9.67	6.15	7.44
14. Unpaid Labour	17.88	1.74	13.49	1.34
VARIABLE COSTS	121.06	122.26	91.34	94.05
(C)				
1. Cash/Share Rent & Land Lease	.00	.00	.00	.00
2. Taxes, Water Rates, Lic. & Insurance	6.38	3.49	4.81	2.69
3. Equipment & Buildings	45.18	23.53	34.09	18.10
a) Depreciation				
b) Lease Payments	.00	.00	.00	.00
4. Paid Capital Interest	.31	.00	.23	.00
TOTAL CAPITAL COSTS	51.86	27.02	39.13	20.79
(D) CASH COSTS (B+C-B14-C3a)	109.86	124.01	82.89	95.39
(E) TOTAL PRODUCTION COSTS (B+C)	172.92	149.29	130.47	114.84
(F) GROSS MARGIN (A-D)	121.66	109.99	91.79	84.61
RETURN TO UNPAID LABOUR (A-E+B14)	76.48	86.45	57.71	66.50
RETURN TO INVESTMENT (A-E+C4)	58.91	84.71	44.44	65.16
RETURN TO EQUITY (A-E)	58.60	84.71	44.21	65.16
INVESTMENT				
Land	3,725.17	3,500.00	2,810.60	2,692.31
Buildings	84.01	57.41	63.38	44.16
Machinery	391.62	209.03	295.47	160.79
Irr. Machinery	.00	.00	.00	.00
TOTAL	4,200.80	3,766.44	3,169.46	2,897.26
MANAGEMENT				
Yield Per Acre (Tonne)	1.33	1.30		
Expected Market Price Per Tonne	174.68	180.00		

2021 Crops Enterprise Analysis

All Dryland Alfalfa/Grass Hay

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Tonne	
(A)				
1. Crop Sales	140.65	117.71	154.20	335.99
2. Crop Insurance Receipts	99.87	176.42	109.49	503.55
3. Miscellaneous Receipts	.20	.36	.22	1.03
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	240.71	294.49	263.92	840.57
(B)				
1. Seed & Seed Cleaning	3.19	.00	3.50	.00
2. Fertilizer	33.56	27.38	36.79	78.16
3. Chemicals	.00	.00	.00	.00
4. Hail / Crop Insurance & Program Premiums	1.78	2.74	1.95	7.81
5. Trucking & Marketing	.67	.00	.74	.00
6. Fuel	7.51	9.74	8.24	27.79
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	20.28	20.12	22.23	57.43
9. Repairs - Buildings	2.29	3.43	2.51	9.80
10. Utilities & Miscellaneous Expenses	6.31	8.22	6.92	23.46
11. Custom Work & Specialized Labour	46.43	27.76	50.91	79.22
12. Operating Interest Paid	1.68	1.24	1.84	3.55
13. Paid Labour & Benefits	6.56	2.62	7.19	7.49
14. Unpaid Labour	17.13	22.40	18.78	63.94
VARIABLE COSTS	147.38	125.65	161.59	358.65
(C)				
1. Cash/Share Rent & Land Lease	.00	.00	.00	.00
2. Taxes, Water Rates, Lic. & Insurance	19.39	15.06	21.26	42.98
3. Equipment & Buildings	21.49	20.15	23.56	57.52
a) Depreciation				
b) Lease Payments	.00	.00	.00	.00
4. Paid Capital Interest	.00	.00	.00	.00
TOTAL CAPITAL COSTS	40.88	35.21	44.82	100.50
(D) CASH COSTS	(B+C-B14-C3a)	149.65	118.31	164.07
(E) TOTAL PRODUCTION COSTS	(B+C)	188.27	160.86	206.41
(F) GROSS MARGIN	(A-D)	91.07	176.18	99.84
RETURN TO UNPAID LABOUR	(A-E+B14)	69.58	156.03	76.28
RETURN TO INVESTMENT	(A-E+C4)	52.45	133.63	57.50
RETURN TO EQUITY	(A-E)	52.45	133.63	57.50
INVESTMENT				
Land	3,977.27	4,660.71	4,360.67	13,303.03
Buildings	75.01	85.50	82.24	244.03
Machinery	191.01	179.01	209.43	510.94
Irr. Machinery	.00	.00	.00	.00
TOTAL	4,243.29	4,925.22	4,652.33	14,058.01
MANAGEMENT				
Yield Per Acre (Tonne)	.91	.35		
Expected Market Price Per Tonne	154.20	335.99		

2021 Crops Enterprise Analysis

All Dryland Mixed Grass Hay

	Average	Top 1/3	Average	Top 1/3
	\$/Acres		\$/Tonne	
(A)				
1. Crop Sales	90.21	187.23	217.97	234.11
2. Crop Insurance Receipts	14.28	3.18	34.51	3.98
3. Miscellaneous Receipts	.01	.00	.03	.00
4. Government Program	.00	.00	.00	.00
5. Additional Revenue from Straw / Aftermath Grazing	.00	.00	.00	.00
GROSS RETURN	104.50	190.41	252.51	238.09
(B)				
1. Seed & Seed Cleaning	15.00	34.55	36.24	43.20
2. Fertilizer	.00	.00	.00	.00
3. Chemicals	.00	.00	.00	.00
4. Hail / Crop Insurance & Program Premiums	1.12	.25	2.71	.31
5. Trucking & Marketing	2.64	.59	6.38	.74
6. Fuel	4.96	.47	11.99	.59
7. Irrigation Fuel & Electricity	.00	.00	.00	.00
8. Repairs - Machine	15.81	1.91	38.21	2.39
9. Repairs - Buildings	.22	.01	.53	.02
10. Utilities & Miscellaneous Expenses	3.20	.46	7.73	.58
11. Custom Work & Specialized Labour	.00	.00	.00	.00
12. Operating Interest Paid	1.15	2.65	2.78	3.32
13. Paid Labour & Benefits	7.11	1.43	17.18	1.79
14. Unpaid Labour	40.57	24.42	98.03	30.54
VARIABLE COSTS	91.79	66.75	221.79	83.46
(C)				
1. Cash/Share Rent & Land Lease	1.58	.00	3.82	.00
2. Taxes, Water Rates, Lic. & Insurance	5.94	.80	14.34	1.00
3. Equipment & Buildings	52.42	62.01	126.67	77.54
a) Depreciation				
b) Lease Payments	.00	.00	.00	.00
4. Paid Capital Interest	.46	.00	1.11	.00
TOTAL CAPITAL COSTS	60.39	62.81	145.93	78.54
(D) CASH COSTS	(B+C-B14-C3a)	59.19	43.13	143.03
(E) TOTAL PRODUCTION COSTS	(B+C)	152.18	129.56	367.72
(F) GROSS MARGIN	(A-D)	45.31	147.29	109.48
RETURN TO UNPAID LABOUR	(A-E+B14)	-7.11	85.27	-17.19
RETURN TO INVESTMENT	(A-E+C4)	-47.22	60.85	-114.11
RETURN TO EQUITY	(A-E)	-47.68	60.85	-115.21
INVESTMENT				
Land	3,233.47	4,272.73	7,813.03	5,342.56
Buildings	131.52	177.56	317.80	222.01
Machinery	468.54	559.05	1,132.13	699.02
Irr. Machinery	.00	.00	.00	.00
TOTAL	3,833.54	5,009.33	9,262.96	6,263.59
MANAGEMENT				
Yield Per Acre (Tonne)	.41	.80		
Expected Market Price Per Tonne	217.97	234.11		

Definitions and Explanations

I INCOME

- A Imputed value of production** – total of estimated yields/acre x estimated final prices
- B Crop insurance receipts** – added regardless of when payment is received
- C Miscellaneous receipts** – such as patronage dividends or input rebates
- D Government program receipts** – allocated to all cropped acres equally
- E Straw/aftermath grazing revenue** – value of straw + imputed value of grazing

II EXPENSES

- A Crop specific inputs** – allocated by producer to each crop as documented on the survey form
 1. **Seed**
 2. **Fertilizer**
 3. **Chemical**
 4. **Hail and crop insurance**
 5. **Custom work and specialized labour**
 6. **Land rent** – cash rent or crop share (converted to a cash basis)
- B Allocated crop inputs** – allocation ratios based on research from Alberta Agriculture and Irrigation
 1. **Trucking and marketing** – allocated to specific cropping acres by producer
 2. **Fuel** – Summer fallow – allocation of 0.3:1 compared to crop acres; Sugar beets –allocation of 2.96:1 compared to other irrigated crop acres
 3. **Irrigation fuel** – allocation based on total pumping hours for each crop
 4. **Machinery repairs** – allocated equally to all acres except summer fallow (0.3:1) and special crops (as specified by producer)
 5. **Building repairs** – allocated to all acres equally except for special crops buildings
 6. **Operating interest** – interest paid on operating loans allocated equally
 7. **Paid labour** – based on allocations between crops as specified by producer
 8. **Unpaid and operator labour** – operator -\$10/hour, other unpaid labour - \$7.50/hour
 9. **Land taxes** – allocated equally to all owned cropped acres
 10. **Water rates** – allocated equally to all owned irrigated acres
 11. **Equipment depreciation** – imputed at 8.5% for power equipment, 11% for non-power, based on current market value
 12. **Insurance and licenses** – allocated to all cropped acres equally
 13. **Building depreciation** – imputed at 5% on the current market value
 14. **Paid capital interest** – allocated to all owned cropped acres equally except summer fallow (0.25:1)

III CAPITAL INVESTMENT

- A Land** – producer estimate of bare land value for both irrigated and dryland owned acreage
- B Buildings** – allocated equally to all acreage except special crops buildings (allocated to the crop)
- C Equipment**
 1. **General use** – allocated to all acres equally, except summer fallow (0.3:1)
 2. **Crop specific** – allocated by producer to each crop based on percentage of use
 3. **Irrigation** – allocated according to pumping hours as specified by producer

IV SUMMARY CALCULATION

- A Gross return** = imputed value of production + crop insurance receipts + miscellaneous receipts + government program payments + straw/grazing revenue
- B Variable costs** = seed + fertilizer + chemicals + crop insurance + trucking and marketing + fuel + machinery and building repairs + utilities + miscellaneous overhead + custom work + operating interest + paid and unpaid labour
- C Total capital costs** = land rent + land taxes + water rates + insurance + depreciation + paid capital interest
- D Cash costs** = variable costs + capital costs – unpaid labour – depreciation
- E Total production costs** = variable costs + total capital costs
- F Gross margin** (returns left to cover total capital costs and operator equity) = gross return – total cash costs
- G Return to unpaid labour** (funds remaining after all expenses have been paid except unpaid labour) = gross return – (total production costs – unpaid labour)
- H Return to investment** (shows the operation's ability to earn a return on its total assets) = gross return – (total production costs – paid capital interest)
- I Return to equity** (amount remaining from operations used to provide a return to individual or shareholder equity) = gross return – total production costs