

AgriProfit\$

Cost and Return Profiles for Selected Crops, 2006

Peace Region

Alberta



April 2008

TABLE OF CONTENTS

2006 Peace Region, Grey-Wooded Soil Zone

	Page
OVERVIEW	1
CROPS	
Spring Wheat	2
Oats	3
Argentine Canola	4
Roundup Ready Canola	5
FORAGES	
Standing Forage	6
DEFINITIONS AND ALLOCATIONS	7

OVERVIEW

2006 Peace Region, Grey-Wooded Soil Zone

The AgriProfit\$ Cost and Return study is a provincial overview of costs and returns for various annual field crops and forages grown throughout the province. Participating farmers are interviewed throughout the winter and the Alberta Agriculture and Rural Development (ARD), Economics Unit compiles all the information into this summary package. This detailed and world-class database is used for extension and research purposes.

In this package you will find a brief summary of various field crops and forages grown in the Peace Region of the grey-wooded soil zone. Where numbers warrant, there are two levels of analysis – the group average and the top third. The top third analysis is based on the top third of fields that have the highest return to equity.

The map on the upper right illustrates the Peace Region of the grey-wooded soil zone area in Alberta. Please note that farms highlighted within this zone may contain characteristics of neighbouring soil zones, however, this is the grouping method used for this study.

The map on the lower right highlights the locations of participating farmers for the AgriProfits program season, for January 2006 to December 2006.

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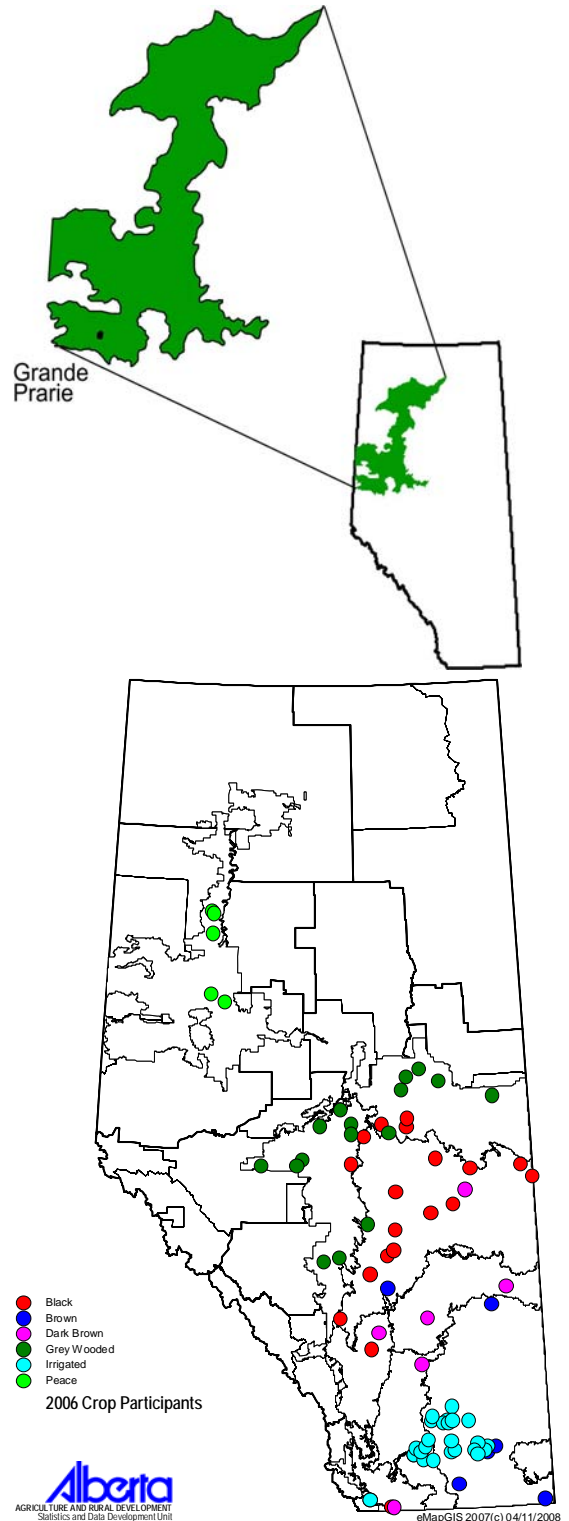
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2006 Crop Enterprise Analysis

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Crop: Spring Wheat - All
Soil Zone: Grey-Wooded - Dryland - Stubble
Unit: Bushel

		----- \$/Acre -----		---- \$/Bushel ----		
		Average	Top 1/3	Average	Top 1/3	
(A)	1. Crop Sales	167.34	--	4.18	--	
	2. Crop Insurance Receipts	0.00	--	0.00	--	
	3. Other Receipts	11.14	--	0.28	--	
	Gross Receipts	178.48	0.00	4.46	0.00	
(B)	Cost Items					
	1. Seed	7.25	--	0.18	--	
	2. Fertilizer	25.02	--	0.63	--	
	3. Chemical	17.71	--	0.44	--	
	4. Hail/Crop Insurance Premium	2.87	--	0.07	--	
	5. Trucking and Marketing	0.00	--	0.00	--	
	6. Fuel	13.21	--	0.33	--	
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--	
	8. Repairs - Machinery	6.93	--	0.17	--	
	9. Repairs - Buildings	0.30	--	0.01	--	
	10. Utilities and Miscellaneous	6.24	--	0.16	--	
	11. Custom Work	0.99	--	0.02	--	
	12. Operating Interest Paid	0.83	--	0.02	--	
	13. Paid Labour	0.72	--	0.02	--	
	14. Unpaid Labour	9.04	--	0.23	--	
	Variable Costs	91.10	0.00	2.28	0.00	
(C)	1. Cash/ Share Land Rent	2.66	--	0.07	--	
	2. Taxes, Water Rates, License & Ins.	4.54	--	0.11	--	
	3. Equipment and Building:	a) Depreciation	33.69	--	0.84	--
		b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	3.26	--	0.08	--	
	Capital Costs	44.15	0.00	1.10	0.00	
(D)	Cash Costs	92.51	--	2.31	--	
(E)	Total Production Costs	135.24	--	3.38	--	
	Gross Margin	85.97	--	2.15	--	
	Return to Unpaid Labour	52.28	--	1.31	--	
	Return to Investment	46.49	--	1.16	--	
	Return to Equity	43.23	--	1.08	--	

Investment

Buildings	129.52	--
Machinery	290.08	--
Irrigation Machinery	0.00	--
Total (incl. Land)	934.65	--

Management

Average Yield	(Bushel/acre)	40.00	--
Expected Market Price	(\$/Bushel)	4.18	--

2006 Crop Enterprise Analysis

AgriProfit\$

Crop: Oats - All
Soil Zone: Grey-Wooded - Dryland -
Unit: Bushel

		----- \$/Acre -----		---- \$/Bushel ----		
		Average	Top 1/3	Average	Top 1/3	
(A)	1. Crop Sales	203.40	--	1.96	--	
	2. Crop Insurance Receipts	11.27	--	0.11	--	
	3. Other Receipts	10.10	--	0.10	--	
	Gross Receipts	224.77	0.00	2.17	0.00	
(B)	Cost Items					
	1. Seed	8.92	--	0.09	--	
	2. Fertilizer	22.29	--	0.22	--	
	3. Chemical	3.35	--	0.03	--	
	4. Hail/Crop Insurance Premium	2.66	--	0.03	--	
	5. Trucking and Marketing	0.16	--	0.00	--	
	6. Fuel	18.00	--	0.17	--	
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--	
	8. Repairs - Machinery	7.41	--	0.07	--	
	9. Repairs - Buildings	0.48	--	0.00	--	
	10. Utilities and Miscellaneous	9.15	--	0.09	--	
	11. Custom Work	0.91	--	0.01	--	
	12. Operating Interest Paid	0.84	--	0.01	--	
	13. Paid Labour	0.69	--	0.01	--	
	14. Unpaid Labour	8.61	--	0.08	--	
	Variable Costs	83.47	0.00	0.81	0.00	
(C)	1. Cash/ Share Land Rent	0.65	--	0.01	--	
	2. Taxes, Water Rates, License & Ins.	4.37	--	0.04	--	
	3. Equipment and Building:	a) Depreciation	34.32	--	0.33	--
		b) Lease Payments	0.23	--	0.00	--
	4. Paid Capital Interest	6.35	--	0.06	--	
	Capital Costs	45.94	0.00	0.44	0.00	
(D)	Cash Costs	86.46	--	0.83	--	
(E)	Total Production Costs	129.40	--	1.25	--	
	Gross Margin	138.30	--	1.33	--	
	Return to Unpaid Labour	103.98	--	1.00	--	
	Return to Investment	101.72	--	0.98	--	
	Return to Equity	95.36	--	0.92	--	

Investment

Buildings	138.99	--
Machinery	296.00	--
Irrigation Machinery	0.00	--
Total (incl. Land)	876.81	--

Management

Average Yield	(Bushel/acre)	103.64	--
Expected Market Price	(\$/Bushel)	1.96	--

2006 Crop Enterprise Analysis

AgriProfit\$

Crop: Argentine Canola - All
Soil Zone: Grey-Wooded - Dryland -
Unit: Bushel

		----- \$/Acre -----		---- \$/Bushel ----		
		Average	Top 1/3	Average	Top 1/3	
(A)	1. Crop Sales	252.60	--	8.50	--	
	2. Crop Insurance Receipts	0.00	--	0.00	--	
	3. Other Receipts	8.64	--	0.29	--	
	Gross Receipts	261.23	0.00	8.79	0.00	
(B)	Cost Items					
	1. Seed	30.89	--	1.04	--	
	2. Fertilizer	34.99	--	1.18	--	
	3. Chemical	20.51	--	0.69	--	
	4. Hail/Crop Insurance Premium	9.77	--	0.33	--	
	5. Trucking and Marketing	0.00	--	0.00	--	
	6. Fuel	19.07	--	0.64	--	
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--	
	8. Repairs - Machinery	7.30	--	0.25	--	
	9. Repairs - Buildings	0.58	--	0.02	--	
	10. Utilities and Miscellaneous	10.08	--	0.34	--	
	11. Custom Work	0.70	--	0.02	--	
	12. Operating Interest Paid	0.58	--	0.02	--	
	13. Paid Labour	0.51	--	0.02	--	
	14. Unpaid Labour	8.83	--	0.30	--	
	Variable Costs	143.80	0.00	4.84	0.00	
(C)	1. Cash/ Share Land Rent	4.11	--	0.14	--	
	2. Taxes, Water Rates, License & Ins.	4.44	--	0.15	--	
	3. Equipment and Building:	a) Depreciation	39.17	--	1.32	--
		b) Lease Payments	0.00	--	0.00	--
	4. Paid Capital Interest	4.83	--	0.16	--	
	Capital Costs	52.55	0.00	1.77	0.00	
(D)	Cash Costs	148.35	--	4.99	--	
(E)	Total Production Costs	196.34	--	6.61	--	
	Gross Margin	112.89	--	3.80	--	
	Return to Unpaid Labour	73.72	--	2.48	--	
	Return to Investment	69.72	--	2.35	--	
	Return to Equity	64.89	--	2.18	--	

Investment

Buildings	161.66	--
Machinery	335.14	--
Irrigation Machinery	0.00	--
Total (incl. Land)	904.61	--

Management

Average Yield	(Bushel/acre)	29.72	--
Expected Market Price	(\$/Bushel)	8.50	--

2006 Crop Enterprise Analysis

AgriProfit\$

Crop: Roundup Ready Canola - Rent
Soil Zone: Grey-Wooded - Dryland - Stubble
Unit: Bushel

		----- \$/Acre -----		---- \$/Bushel ----		
		Average	Top 1/3	Average	Top 1/3	
(A)	1. Crop Sales	170.08	--	8.14	--	
	2. Crop Insurance Receipts	23.50	--	1.12	--	
	3. Other Receipts	6.08	--	0.29	--	
	Gross Receipts	199.66	0.00	9.55	0.00	
(B)	Cost Items					
	1. Seed	22.52	--	1.08	--	
	2. Fertilizer	36.05	--	1.72	--	
	3. Chemical	16.04	--	0.77	--	
	4. Hail/Crop Insurance Premium	10.50	--	0.50	--	
	5. Trucking and Marketing	0.00	--	0.00	--	
	6. Fuel	11.57	--	0.55	--	
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--	
	8. Repairs - Machinery	6.51	--	0.31	--	
	9. Repairs - Buildings	0.11	--	0.01	--	
	10. Utilities and Miscellaneous	4.41	--	0.21	--	
	11. Custom Work	0.55	--	0.03	--	
	12. Operating Interest Paid	1.61	--	0.08	--	
	13. Paid Labour	0.98	--	0.05	--	
	14. Unpaid Labour	7.99	--	0.38	--	
Variable Costs	118.83	0.00	5.69	0.00		
(C)	1. Cash/ Share Land Rent	20.51	--	0.98	--	
	2. Taxes, Water Rates, License & Ins.	1.36	--	0.06	--	
	3. Equipment and Building:	a) Depreciation	21.06	--	1.01	--
		b) Lease Payments	0.70	--	0.03	--
	4. Paid Capital Interest	3.05	--	0.15	--	
Capital Costs	46.68	0.00	2.23	0.00		
(D)	Cash Costs	136.47	--	6.53	--	
(E)	Total Production Costs	165.51	--	7.92	--	
	Gross Margin	63.19	--	3.02	--	
	Return to Unpaid Labour	42.13	--	2.02	--	
	Return to Investment	37.20	--	1.78	--	
	Return to Equity	34.15	--	1.63	--	

Investment

Buildings	76.50	--
Machinery	184.55	--
Irrigation Machinery	0.00	--
Total (incl. Land)	261.04	--

Management

Average Yield	(Bushel/acre)	20.90	--
Expected Market Price	(\$/Bushel)	8.14	--

2006 Crop Enterprise Analysis

AgriProfit\$

Crop: Standing Forage - Purchased - Rent
Soil Zone: Grey-Wooded - Dryland -
Unit: Tonne

		----- \$/Acre -----		----- \$/Tonne -----	
		Average	Top 1/3	Average	Top 1/3
(A)	1. Crop Sales	36.40	--	42.11	--
	2. Crop Insurance Receipts	0.00	--	0.00	--
	3. Other Receipts	0.74	--	0.86	--
	Gross Receipts	37.14	0.00	42.97	0.00
(B)	Cost Items				
	1. Seed	0.00	--	0.00	--
	2. Fertilizer	0.00	--	0.00	--
	3. Chemical	0.00	--	0.00	--
	4. Hail/Crop Insurance Premium	0.00	--	0.00	--
	5. Trucking and Marketing	0.00	--	0.00	--
	6. Fuel	2.05	--	2.37	--
	7. Irrigation Fuel and Electricity	0.00	--	0.00	--
	8. Repairs - Machinery	2.99	--	3.46	--
	9. Repairs - Buildings	0.00	--	0.00	--
	10. Utilities and Miscellaneous	0.82	--	0.95	--
	11. Custom Work	4.15	--	4.81	--
	12. Operating Interest Paid	0.16	--	0.18	--
	13. Paid Labour	0.94	--	1.09	--
14. Unpaid Labour	1.01	--	1.16	--	
	Variable Costs	12.12	0.00	14.02	0.00
(C)	1. Cash/ Share Land Rent	13.84	--	16.01	--
	2. Taxes, Water Rates, License & Ins.	0.16	--	0.19	--
	3. Equipment and Building: a) Depreciation	1.44	--	1.66	--
	b) Lease Payments	0.00	--	0.00	--
4. Paid Capital Interest	2.32	--	2.69	--	
	Capital Costs	17.77	0.00	20.55	0.00
(D)	Cash Costs (B+C-B14-C3a)	27.44	--	31.74	--
(E)	Total Production Costs (B+C)	29.88	--	34.57	--
	Gross Margin (A-D)	9.70	--	11.23	--
	Return to Unpaid Labour (A-E+B14)	8.27	--	9.56	--
	Return to Investment (A-E+C4)	9.59	--	11.09	--
	Return to Equity (A-E)	7.26	--	8.40	--

Investment

Buildings	1.67	--
Machinery	12.04	--
Irrigation Machinery	0.00	--
Total (incl. Land)	13.71	--

Management

Average Yield (Tonne/acre)	0.86	--
Expected Market Price (\$/Tonne)	42.11	--

DEFINITIONS AND ALLOCATIONS

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 AAFRD
 1. **Irrigation to Dryland Ratio** – allocated to crops at a 3:1 ratio
 2. **Trucking and Marketing** – allocated to specific cropping acres by producer
 3. **Fuel** – Summerfallow – allocation of 0.3:1 compared to crop acres; Sugar beets – allocation of 2.96:1 compared to other irrigated crop acres
 4. **Irrigation Fuel** – allocation based on total pumping hours for each crop
 5. **Machinery Repairs** – allocated equally to all acres except summerfallow (0.3:1) and special crops (as specified by producer)
 6. **Building Repairs** – allocated to all acres equally except for special crops buildings
 7. **Operating Interest** – interest paid on operating loans allocated equally
 8. **Paid Labour** – based on allocations between crops as specified by producer
 9. **Unpaid and Operator Labour** – operator - \$10/hour, other unpaid labour - \$7.50/hour
 10. **Land Taxes** – allocated equally to all owned cropped acres
 11. **Water Rates** – allocated equally to all owned irrigated acres
 12. **Water Rates** – allocated equally to all owned irrigated acres
 13. **Equipment Depreciation** – imputed at 8.5% for power equipment, 11% for non-power, based on current market value

- 14. **Insurance and Licenses** – allocated to all cropped acres equally
- 15. **Building Depreciation** – imputed at 5% on the current market value
- 16. **Paid Capital Interest** – allocated to all owned cropped acres equally except summerfallow (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 summerfallow (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