

AgriProfit\$

Benchmarks for Alberta Cattlemen

Economics & Competitiveness

Economic, Productive & Financial Performance Of Alberta Cow/Calf Operations

Southern Alberta

Fescue Grassland, Mixed Grassland
& Moist Mixed Grassland

Production Year - 2003

July / 05

Alberta
AGRICULTURE, FOOD AND
RURAL DEVELOPMENT



Forward

This *AgriProfit\$ Cost & Returns Report* presents the productive, economic & financial performance of Alberta cow/calf producers in Southern Alberta for the 2003 production year.

Field research was undertaken through Alberta Agriculture's *AgriProfit\$ Business Analysis & Research* program with the cooperation of producers in the region. The intent of this report is to benchmark three specific management groupings:

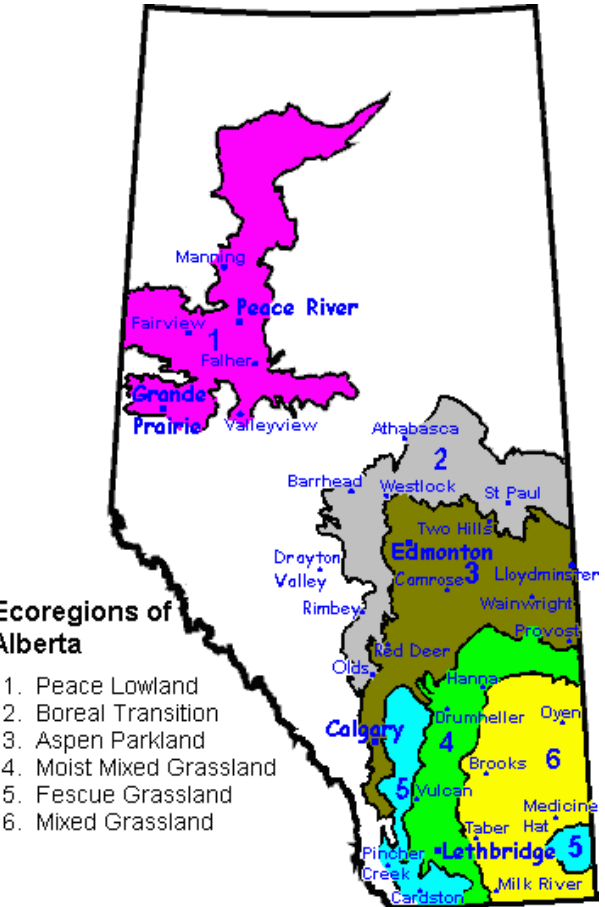
- a regional average including all participating producers in the Fescue Grassland, Mixed Grassland & Moist Mixed Grassland grass types.
- an average of the "top performers" within this region. These include the lower 50%* of producers in the region as ranked by unit costs.
- an average (or Provincial Total) of all producers in the research pool.

The primary value of this report is to enable producers to gauge their productive, economic and financial performance relative to their peers locally and provincially. Benchmark analysis, comparing to one's own detailed cost and returns analysis, is the first critical step in identifying operational strengths and weaknesses in a cow/calf operation.

Cost and returns profiles for common forage and grazing crops in the grass type / region are included in this benchmark report in order to put these profit centers into context with the cow herd profiles they support. A list of definitions for common terms employed in this benchmark report is also appended.

The map above illustrates the location of each grass type region within Alberta. This package only reports the results of one specific grass type region, along with comparisons to the provincial total. If you are interested in obtaining information on other regions, please contact the Economics Unit at:

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* For this analysis, total production cost per lb. weaned was the sole criteria for identifying the top management ("**Low Cost**") herds within the region. It should be noted, however, that there are several other factors that may contribute to the success of a cow/calf operation.

****Note:** Regional & top management groups had sufficient full farm observations to develop the farm financial benchmarks ... only these are used to develop the farm level financial performance indicators. Enterprise productive & economic information is developed based upon the whole regional sample.

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Historical Review of Alberta Cow/Calf Operations Economic, Financial & Productive Performance: 1998 - 2003

Benchmark Comparables: Southern Alberta, by Year
Enterprise Type: Weaned-Calf

Enterprise Economic Performance: Major Unit Cost Groups *(summing to Total Cost)*

	----- \$ / Lb. Weaned -----					
	1998	1999	2000	2001	2002	2003
Winter Feed & Bedding Costs	0.356	0.292	0.291	--	0.380	0.627
Pasture Costs	0.284	0.277	0.452	--	0.455	0.344
Labour Costs	0.184	0.134	0.157	--	0.120	0.133
Other Variable Costs	0.261	0.182	0.170	--	0.248	0.222
Fixed Costs	0.177	0.148	0.091	--	0.112	0.125
Total Production Costs	1.262	1.034	1.162	--	1.315	1.451

Farm Financial Performance Indicators:

<u>ROAD to Profitability</u>	1998	1999	2000	2001	2002	2003
Risk (Debt to Asset Ratio)	0.14	0.15	0.08	--	0.07	0.14
Operating Expense Ratio	0.64	0.50	0.45	--	0.51	2.05
Asset Return	0.01	0.03	0.03	--	0.03	(0.06)
Debt Payout to Profitability	10.74	4.23	2.09	--	1.78	(2.53)
	24,650	64,275	89,588	--	111,805	(125,181)
<u>The "3-C's"</u>						
Current Ratio	2.34	3.42	3.52	--	5.70	2.30
Calif. Working Cap. Ratio	0.54	0.89	1.24	--	1.32	0.48
Capital Turnover Ratio	0.11	0.11	0.10	--	0.10	0.04
Farm Size (Acres)	4,208	3,244	4,102	--	11,180	16,176

Debt to Assets = Total Liabilities / Total Assets

Operating Expense Ratio = Operating Expenses / Value of Production

Return on Assets = Return on Assets / Total Farm Assets

Debt Payout = Total Liabilities / Net Farm Income

Profitability = Net Farm Income

Current Ratio = Current Assets / Current Liabilities

Calif. Working Cap. Ratio = Working Capital / Total Expenses

Capital Turnover = Value of Production / Total Farm Assets

Farm Size = Total Acres in crops, forages & grazing

(includes all acres owned, rented & leased)

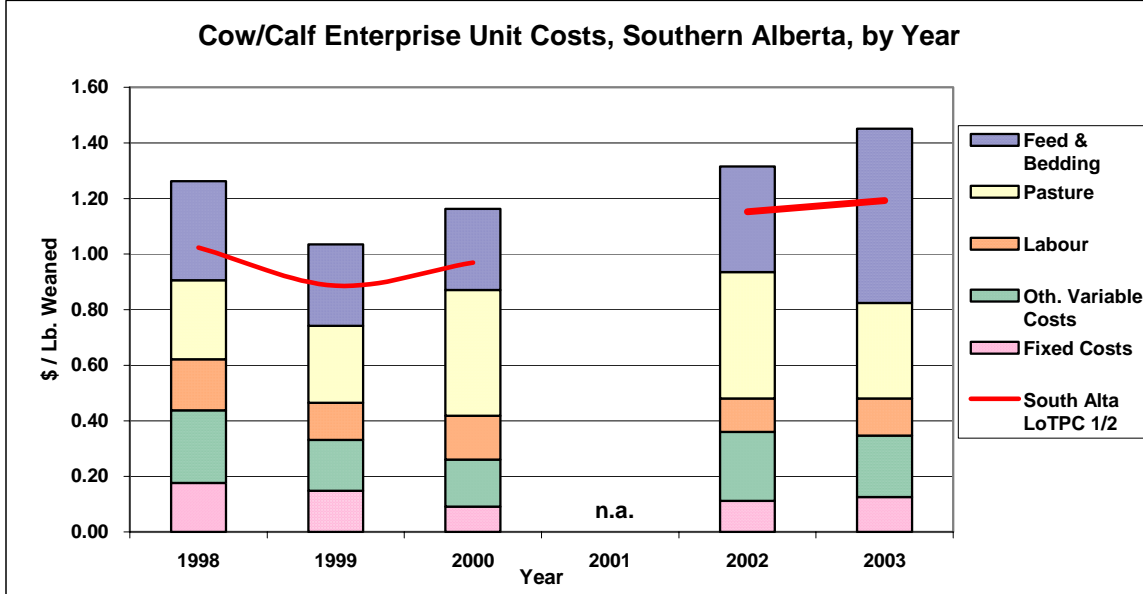
Productive Performance Indicators:

	1998	1999	2000	2001	2002	2003
Calf Crop (%)	82.5	88.9	88.2	--	82.4	86.0
Lbs. Weaned/Cow Wintered	477.0	519.8	492.5	--	476.7	531.9
Wean Wt as a % of Cow Wt.	40.3	43.2	39.4	--	43.9	45.1
Feeding Season Days	124.3	147.6	118.4	--	95.3	192.4
Tonnes Fed per Cow (as fed)	2.0	2.1	1.8	--	1.5	3.2
Growth (weaning weight)	485.8	544.0	501.7	--	534.6	562.5
Open Cows (%)	15.5	6.9	7.3	--	8.4	8.3
Length of Calving Period	96.7	94.0	79.2	--	70.2	120.2
Death Loss of Calves (%)	1.6	2.5	3.9	--	4.5	5.0

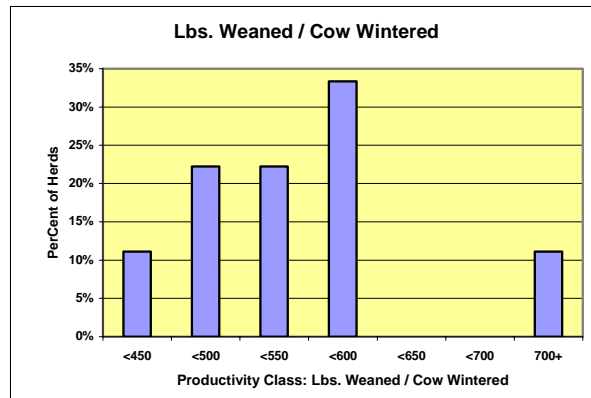
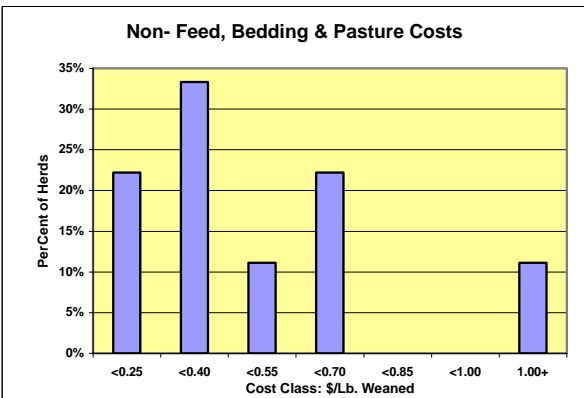
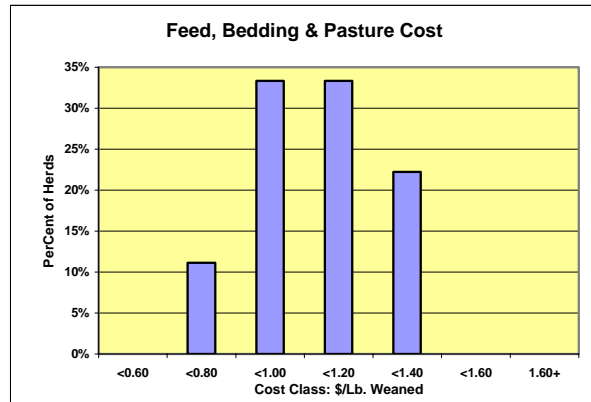
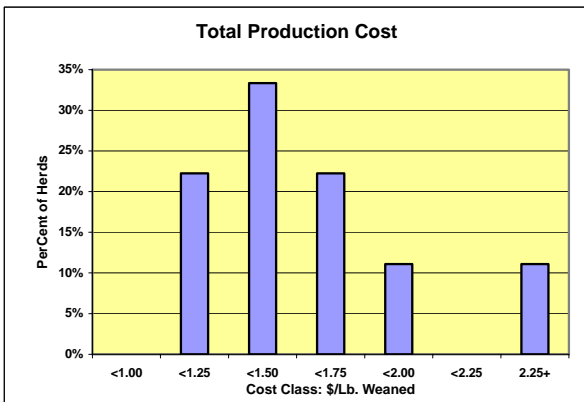
Historical Review of Alberta Cow/Calf Operations (cont'd)

Benchmark Comparables: Southern Alberta, by Year

Enterprise Type: Weaned-Calf



Frequency Distributions: Selected Economic & Production Indicators, Southern Alberta, 2003



2003 Cow/Calf Enterprise Overview

Economic & Physical Performance Comparisons

Benchmark Comparables: Southern Alta. Average & Low Cost Groups; Alberta Total

Enterprise Type: Weaned-Calf

Economic Performance Indicators:

	\$ / Lb. Weaned		
	Grass Type	Low Cost	Alberta Total
Production Stock Sales	1.086	1.074	1.062
Value of Production	0.568	0.623	0.509
Winter Feed Costs	0.582	0.567	0.666
Bedding Costs	0.045	0.038	0.046
Pasture Costs	0.344	0.287	0.315
Labour Costs	0.133	0.071	0.121
Other Variable Costs	0.222	0.149	0.186
Depreciation & Capital Lease Payments	0.078	0.038	0.074
Other Fixed Costs	0.047	0.041	0.043
Total Cash Costs	1.317	1.095	1.292
Total Production Costs	1.451	1.192	1.451
Contribution Margin	(0.757)	(0.490)	(0.826)
Gross Margin	(0.749)	(0.472)	(0.783)
Return to Investment	(0.854)	(0.549)	(0.913)
Return to Equity & Management	(0.882)	(0.569)	(0.942)
Total Investment (\$ / cow wintered)	1,481	1,226	1,587

Physical Performance Indicators:

	Grass Type	Low Cost	Alberta Total		Grass Type	Low Cost	Alberta Total
Conception Rate (%)	94.1	95.0	90.7	Cows Wintered	195.3	202.0	194.9
Calving Rate (%)	99.3	99.8	99.1	Cows per Bull	25.3	25.0	26.9
Weaning Rate (%)	95.0	95.0	95.8	Labour Hours per Cow	6.1	4.0	6.0
Calf Crop (%)	86.0	85.6	85.0	AUM's/Cow Wintered	8.2	7.4	7.8
% Calved - 1st 2 Cycles	83.5	86.2	83.6	Feeding Season Days	192.4	205.7	213.2
Lbs. Weaned/Cow Exposed	483.9	493.1	471.4	Tonnes Fed per Cow			
Lbs. Weaned/Cow Wintered	531.9	551.2	527.1	- as-fed	3.2	3.2	4.7
Wean Wt as a % of Cow Wt.	45.1	46.2	43.7	- dry matter			
Weight per Day of Age (lbs.)	2.61	2.64	2.72				

	Grass Type	Low Cost	Alberta Total
G rowth (weaning weight)	562.5	576.3	554.8
O pen Cows (%)	8.3	9.7	9.0
L ength of Calving Period	120.2	135.6	110.6
D eath Loss of Calves (%)	5.0	5.0	4.3

2003 Cow/Calf Enterprise Overview

Economic & Financial Performance Comparisons

Benchmark Comparables: Southern Alta. Average & Low Cost Groups; Alberta Total

Enterprise Type: Weaned-Calf

Economic Performance Indicators:

	\$ / Cow Wintered		
	Grass Type	Low Cost	Alberta Total
Production Stock Sales	577.59	592.15	559.82
Value of Production	302.37	343.40	268.04
Winter Feed Costs	309.59	312.25	350.96
Bedding Costs	23.72	21.14	24.50
Pasture Costs	182.94	158.36	166.25
Labour Costs	70.81	39.06	63.76
Other Variable Costs	117.88	82.39	97.91
Depreciation & Capital Lease Payments	41.56	21.06	38.80
Other Fixed Costs	25.13	22.64	22.48
Total Cash Costs	700.57	603.54	681.00
Total Production Costs	771.63	656.91	764.66
Contribution Margin	(402.57)	(269.81)	(435.34)
Gross Margin	(398.20)	(260.14)	(412.96)
Return to Investment	(454.12)	(302.60)	(481.05)
Return to Equity & Management	(469.26)	(313.51)	(496.62)

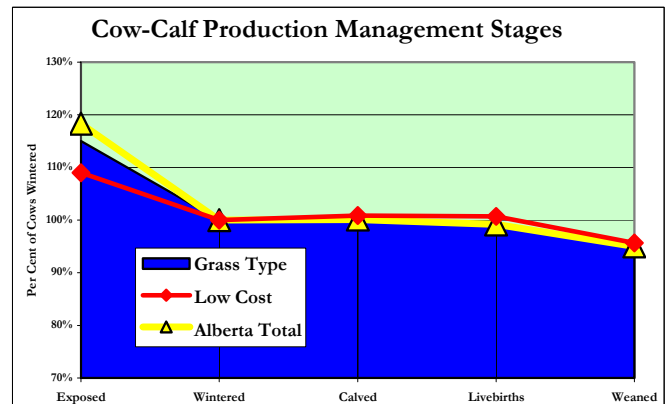
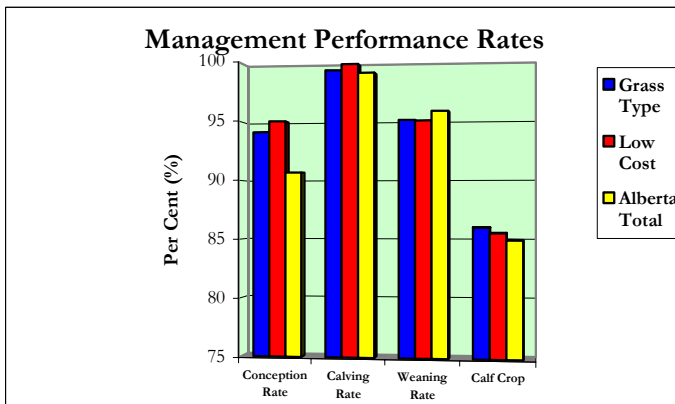
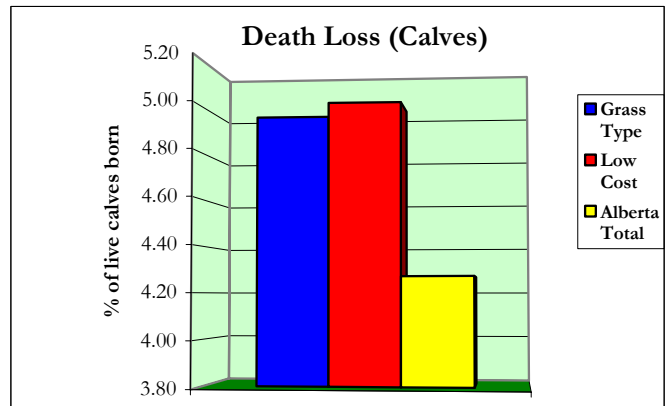
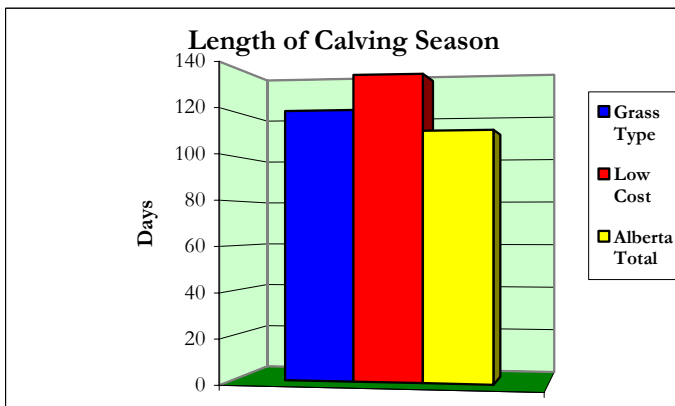
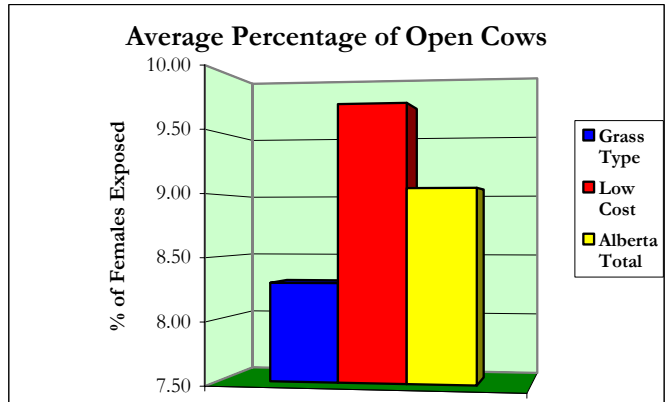
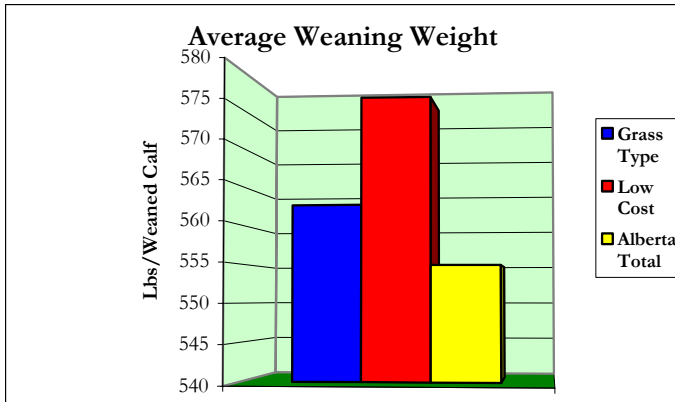
Financial Performance Indicators:

<i>ROAD to Profitability</i>	Grass Type	Low Cost	Alberta Total	
Risk (Debt to Asset Ratio)	0.14	--	0.16	= Total Liabilities / Total Assets
Operating Expense Ratio	2.05	--	1.32	= Operating Expenses / Value of Production
Asset Return	(0.06)	--	(0.06)	= Return on Assets / Total Farm Assets
Debt Payout	(2.53)	--	(3.13)	= Total Liabilities / Net Farm Income
to Profitability	(125,180.54)	--	(100,371.44)	= Net Farm Income
The "3-C's"				
Current Ratio	2.30	--	2.22	= Current Assets / Current Liabilities
Calif. Working Cap. Ratio	0.48	--	0.69	= Working Capital / Total Expenses
Capital Turnover Ratio	0.04	--	0.07	= Value of Production / Total Farm Assets
Farm Size (Acres)	16,176	--	4,585	= Total Acres in crops, forages & grazing (includes all acres owned, rented & leased)

2003 Cow/Calf Enterprise Overview

Physical Performance Comparisons

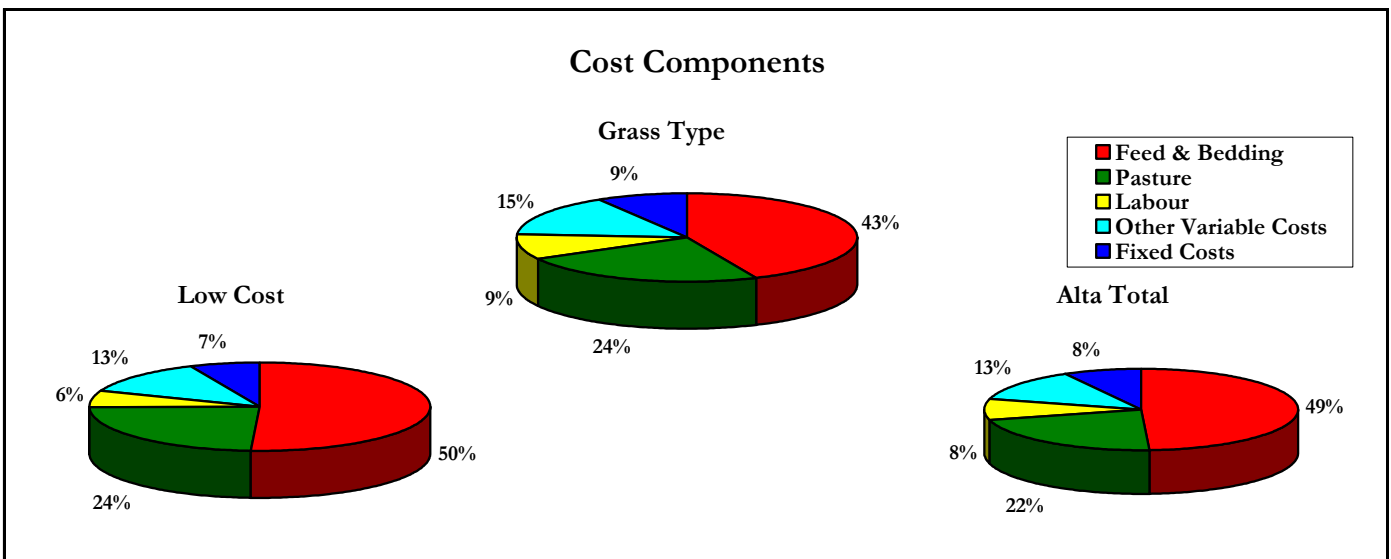
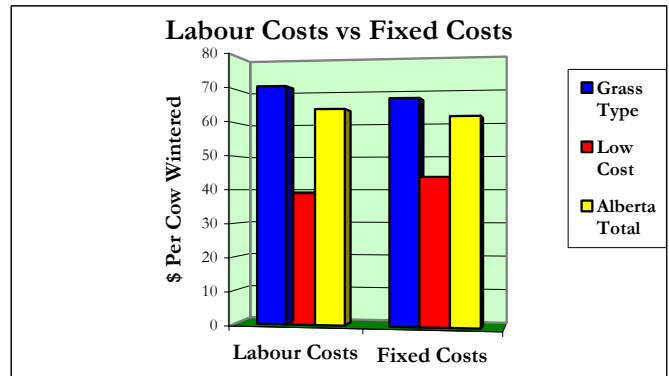
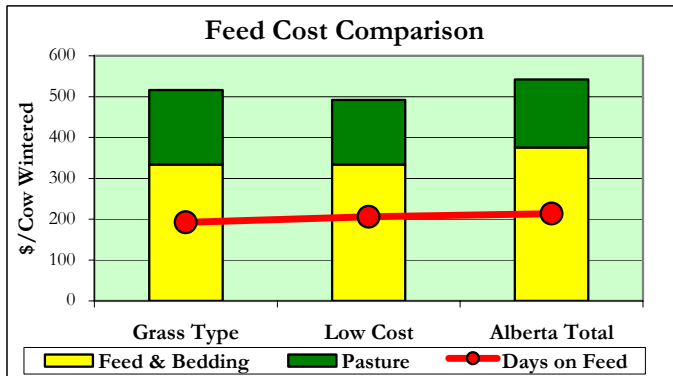
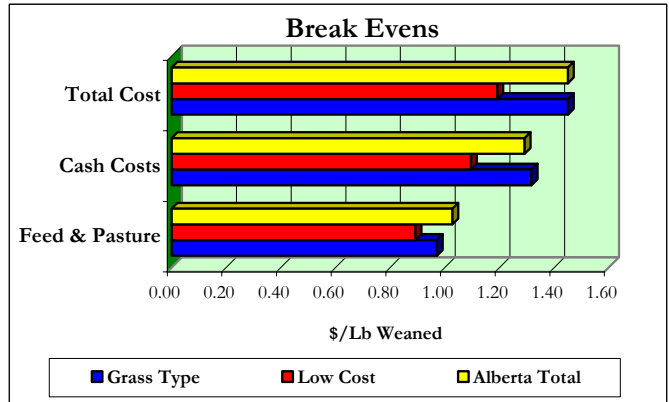
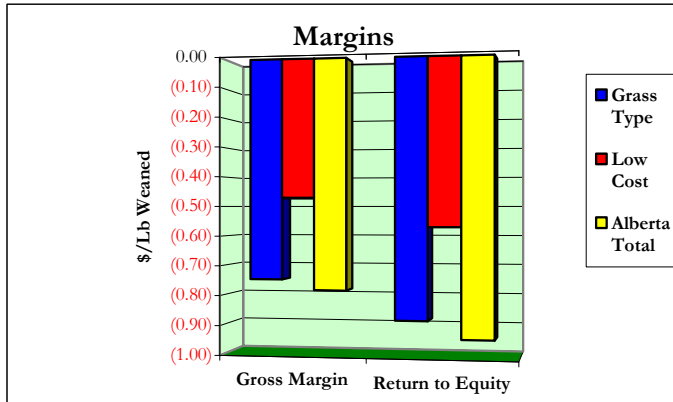
Benchmark Comparables: Southern Alta. Average & Low Cost Groups; Alberta Total



2003 Cow/Calf Enterprise Overview

Economic Performance Comparisons

Benchmark Comparables: Southern Alta. Average & Low Cost Groups; Alberta Total



07/14/05

AgriProfit®**Cow/Calf Enterprise Unit Cost & Returns Detail - 2003****Economic Performance Comparisons**

		Grass Type	Low Cost	Alberta Total
----- \$/Lb Weaned -----				
(A)				
1.	Weaned Calves	1.09	1.07	1.06
2.	Feeder Calves	0.00	0.00	0.00
3.	Slaughter Cattle	0.00	0.00	0.00
4.	Purebred Calves	0.00	0.00	0.00
5.	Baby Calves	0.00	0.00	0.00
6.	Cull Cows/Open Heifers	0.04	0.04	0.08
7.	Bulls	0.01	0.01	0.01
8.	Bred Cows/Bred Heifers	0.01	0.00	0.01
9.	Miscellaneous Receipts	0.00	0.00	0.00
10.	Government Programs	0.00	0.00	0.00
11.	Inventory Adjustment	(0.34)	(0.34)	(0.30)
12.	Less: Cattle Purchases	0.23	0.15	0.36
	Value of Production	0.57	0.62	0.51
(B)				
1.	Winter Feed	0.58	0.57	0.67
2.	Bedding	0.04	0.04	0.05
3.	Pasture	0.34	0.29	0.32
4.	Veterinary & Medicine	0.04	0.03	0.04
5.	Breeding Fees/Bull Rental	0.00	0.00	0.00
6.	Trucking & Marketing Charges	0.02	0.01	0.02
7.	Fuel	0.03	0.02	0.02
8.	Repairs - Machine	0.03	0.02	0.02
9.	Repairs - Corrals & Buildings	0.02	0.02	0.01
10.	Utilities & Miscellaneous Expenses	0.05	0.03	0.04
11.	Custom Work & Specialized Labour	0.02	0.01	0.01
12.	Operating Interest Paid	0.03	0.01	0.02
13.	Paid Labour & Benefits	0.05	0.01	0.03
14.	Unpaid Labour	0.08	0.06	0.09
	Variable Costs	1.33	1.11	1.33
(C)				
1.	Share/Lease Cattle Payments	0.00	0.00	0.00
2.	Taxes, Water Rates, Lic. & Insurance	0.02	0.02	0.01
3.	Equipment & Building	0.05	0.04	0.07
	a) Depreciation			
	b) Lease Payments	0.03	0.00	0.01
4.	Paid Capital Interest	0.03	0.02	0.03
	Total Capital Costs	0.13	0.08	0.12
(D)	Cash Costs	(B+C-B14-C3)	1.32	1.10
(E)	Total Production Costs	(B+C)	1.45	1.45
(F)	Gross Margin	(A-D)	(0.75)	(0.47)
	Return to Unpaid Labour	(A-D+B14)	(0.80)	(0.85)
	Return to Investment	(A-E+C4)	(0.85)	(0.91)
	Return to Equity	(A-E)	(0.88)	(0.94)
	Total Investment		2.78	3.01

07/14/05

AgriProfit®**Cow/Calf Enterprise Unit Cost & Returns Detail - 2003****Economic Performance Comparisons**

	Grass Type	Low Cost	Alberta Total
	----- \$/Cow Wintered -----		
(A)			
1. Weaned Calves	577.59	592.15	559.52
2. Feeder Calves	0.00	0.00	0.00
3. Slaughter Cattle	0.00	0.00	0.00
4. Purebred Calves	0.00	0.00	0.00
5. Baby Calves	0.00	0.00	0.31
6. Cull Cows/Open Heifers	19.47	20.23	43.18
7. Bulls	4.81	4.14	6.67
8. Bred Cows/Bred Heifers	3.87	0.00	2.64
9. Miscellaneous Receipts	0.00	0.00	1.18
10. Government Programs	0.00	0.00	0.00
11. Inventory Adjustment	(183.20)	(189.83)	(156.67)
12. Less: Cattle Purchases	120.18	83.30	188.78
Value of Production	302.37	343.40	268.04
(B)			
1. Winter Feed	309.59	312.25	350.96
2. Bedding	23.72	21.14	24.50
3. Pasture	182.94	158.36	166.25
4. Veterinary & Medicine	19.15	14.80	19.59
5. Breeding Fees/Bull Rental	0.37	0.00	0.26
6. Trucking & Marketing Charges	11.13	6.73	8.16
7. Fuel	14.19	11.14	12.73
8. Repairs - Machine	15.37	12.20	11.69
9. Repairs - Corrals & Buildings	8.93	8.29	6.82
10. Utilities & Miscellaneous Expenses	26.91	15.25	20.87
11. Custom Work & Specialized Labour	8.02	6.81	6.70
12. Operating Interest Paid	13.80	7.17	11.10
13. Paid Labour & Benefits	26.74	6.06	15.11
14. Unpaid Labour	44.08	33.01	48.65
Variable Costs	704.94	613.21	703.38
(C)			
1. Share/Lease Cattle Payments	0.00	0.00	0.55
2. Taxes, Water Rates, Lic. & Insurance	9.99	11.74	6.36
3. Equipment & Building	26.98	20.36	35.01
a) Depreciation			
b) Lease Payments	14.58	0.69	3.79
4. Paid Capital Interest	15.13	10.91	15.57
Total Capital Costs	66.68	43.70	61.28
(D) Cash Costs (B+C-B14-C3)	700.57	603.54	681.00
(E) Total Production Costs (B+C)	771.63	656.91	764.66
(F) Gross Margin (A-D)	(398.20)	(260.14)	(412.96)
Return to Unpaid Labour (A-D+B14)	(425.18)	(280.50)	(447.97)
Return to Investment (A-E+C4)	(454.12)	(302.60)	(481.05)
Return to Equity (A-E)	(469.26)	(313.51)	(496.62)
Total Investment	1,480.81	1,226.16	1,586.76

2003 Forage & Pasture Enterprise Cost & Returns Analysis
South Alberta (Fescue Grassland, Mixed Grassland, Moist Mixed Grassland)

		----- Forages -----		----- Pastures -----		
		Alfalfa	Haylage	Tame	Tame /Native	Native
		/Grass Hay		Grass	Mixed	Grassland
Average field size (acres)		71.8	68.6	141.5	1,170.7	383.5
Number of Observations		13	5	15	7	10
		-----\$/Tonne-----		-----\$/AUM-----		
(A)	1. Crop Sales	61.47	33.66	20.31	23.21	23.40
	2. Crop Insurance Receipts	2.22	0.00	2.95	1.96	0.00
	3. Miscellaneous Receipts	0.31	0.96	0.57	0.15	10.49
	4. Government Programs	0.00	0.00	0.00	0.00	0.00
	5. Straw / Aftermath Grazing	4.99	0.93	0.00	0.00	0.00
	Gross Return	68.98	35.54	23.83	25.32	33.89
(B)	1. Seed	0.00	2.00	0.00	0.00	0.00
	2. Fertilizer	14.88	2.94	3.98	0.00	0.00
	3. Chemicals	0.00	0.34	0.00	0.00	0.00
	4. Crop Insurance Premiums	2.83	0.00	0.43	0.31	0.00
	5. Trucking & Marketing	0.20	0.22	0.00	0.00	0.00
	6. Fuel	5.44	3.14	0.70	0.35	0.76
	7. Irrigation Fuel & Electricity	0.00	0.00	0.00	0.00	0.00
	8. Repairs - Machinery	4.35	2.29	0.85	0.26	0.29
	9. Repairs - Buildings	0.69	0.56	0.24	0.87	0.22
	10. Utilities & Misc. Expenses	3.14	1.45	0.50	0.27	0.45
	11. Custom Work & Specialized Labour	0.00	0.00	0.00	0.00	0.00
	12. Operating Interest Paid	0.41	0.33	0.32	0.17	0.00
	13. Paid Labour & Benefits	2.46	1.97	0.11	0.43	0.49
	14. Unpaid Labour	6.14	4.04	1.16	0.90	3.48
	Variable Costs	40.55	19.28	8.29	3.56	5.68
(C)	1. Cash/Share Rent & Land Lease	9.56	4.21	6.88	3.11	8.26
	2. Taxes, Water Rates, Lic. & Insurance	2.69	1.14	1.19	0.99	1.27
	3. Equip. & Bldg. a) Depreciation	10.06	8.40	1.49	0.88	1.06
	b) Lease Payments	0.14	2.50	0.73	0.09	0.02
	4. Paid Capital Interest	10.31	1.00	1.06	0.30	4.99
	Total Capital Costs	32.75	17.25	11.35	5.37	15.60
(D)	Cash Costs (B+C-B14-C3)	57.11	24.08	16.99	7.16	16.73
(E)	Total Production Costs (B+C)	73.30	36.52	19.64	8.93	21.28
(F)	Gross Margin (A-D)	11.87	11.46	6.84	18.16	17.16
	Return to Unpaid Labour (A-E+B14)	1.81	3.07	5.35	17.29	16.09
	Return to Investment (A-E+C4)	5.98	0.02	5.25	16.68	17.60
	Return to Equity (A-E)	(4.33)	(0.98)	4.18	16.39	12.61
Return on Investment (%)		0.7	0.0	1.4	7.6	6.6
Total Investment (\$/acre)		1,118.53	879.40	481.60	91.65	128.74
Management						
Yield per Acre (tonnes or AUM's)		1.27	3.56	1.31	0.42	0.48
Expected Market Price (\$/unit)		61.47	33.66	20.31	23.21	23.40

* Cost and returns profiles include/combine all tenure types ... owned, rented & leased.

Definitions & Explanations to Accompany the Cow/Calf Enterprise Overview

Production Stock Sales - revenues associated with the sale of weaned calves & other **non-breeding stock** related sales.

Value of Production (VOP) - the value of what was produced by the cow/calf enterprise over the course of the production year. Includes cash & non-cash values of:

- g** cull & breeding stock sales, revenues from miscellaneous sources (eg. program payments, patronage refunds, etc.) as allocated to the cow/calf enterprise,
- g** inventory adjustments relating changes in the number & value of stock included in the enterprise,
- g** an adjustment for livestock purchases (value is added only from the point of purchase forward)

Winter Feed Costs - the cost of all feeds used by the cow/calf enterprise, purchased or homegrown, based on the market value of these feeds (**not** the cost of raising the feeds).

Pasture Costs - the value of grazing used by the cow/calf enterprise (exclusive of any other retained ownership/backgrounding uses). Pasture is valued into the cow/calf enterprise at market value (**not** cost) & is treated as a "cash" cost.

Labour Costs - a sum of paid & contributed labour, as allocated to the cow/calf enterprise. Paid labour is valued at cost, while unpaid labour is valued at a standard or base cost.

Depreciation & Capital Lease Payments - sum of depreciation & mach./equip't/ bldg. lease payments on assets allocated to the cow/calf enterprise.

Other Fixed Costs - total cash overheads, as allocated to the cow/calf enterprise (share/lease cattle payments, property taxes, insurances, licences & term loan interest).

Total Cash Costs - sum of enterprise cash costs, considering home grown feeds, bedding & pasture as cash costs.

Total Production Costs - sum of all variable & fixed production costs.

Contribution Margin - VOP less Variable Costs

Gross Margin - VOP less Total Cash Costs

Return to Investment - VOP less Total Production Costs plus Term (Capital) Interest Paid

Return to Equity & Management - VOP less Total Production Costs

Investment - sum of assets allocated to the enterprise. includes: breeding stock, machinery, equipment, buildings/facilities & building site (only).

Breeding Performance Rates

(adjusted for sales & purchases of bred cattle)

Conception Rate (%) - # Bred / # Exposed

Calving Rate (%) - # Livebirths / # Bred Females

Weaning Rate (%) - # Weaned / # Livebirths

Calf Crop (%) - # Weaned / # Exposed

Calved in 1st 2 Cycles (%) - $\frac{\# \text{ Calved Cycle 1 \& 2}}{\text{Total Calved}}$

Lbs. Weaned/Cow Exposed - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Females Exposed}}$

Lbs. Weaned/Cow Wintered - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Bred Females Wintered}}$

Wean Wt. as % of Cow Wt. - $\frac{\text{Avg. Lbs. Weaned}}{\text{Avg. Mature Cow Wt.}}$
(adjusting bred heifer wts.)

Weight per Day of Age (lbs.) - $\frac{\text{Avg. Lbs. Weaned}}{\text{Wtd Avg Wean Age}}$

Cows Wintered - Open Inventory of Bred Cows & Heifers

Cows / Bull - # Cows & Heifers Exposed / # Bulls Used

Labour Hours / Cow - Total Labour Hrs. / Cows Wintered

AUM's / Cow Wintered - $\frac{\text{Total Enterprise AUM's}}{\text{Cows Wintered}}$

Feeding Season Days - Days Fed (in yard)

Tonnes Fed per Cow -

as-fed $\frac{\text{Tonnes Total Feed (As-Fed)}}{\# \text{ Cows Wintered}}$

dry matter $\frac{\text{Tonnes Total Feed (Dry Matter)}}{\# \text{ Cows Wintered}}$

GOLD Indicators

Growth (wean wt.) - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Calves Weaned}}$

Open Cows (%) - $\frac{\# \text{ Open Cows \& Heifers}}{\# \text{ Exposed}}$

Length of Calving Period - Days from 1st to last calf

Death Loss of Calves (%) - $\frac{\# \text{ Calves Died}}{\# \text{ Livebirths}}$