

AgriProfit\$

Benchmarks for Alberta Cattlemen

Economics & Competitiveness

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

Comparing:

Northern Alberta Total,
Northern Alberta Low Cost, and
5 Year Northern Alberta Low Cost
Management Groupings

*(combining Peace Lowland & portions of
Boreal Transition Grass Types)*

Production Year - 2008

October, 2011



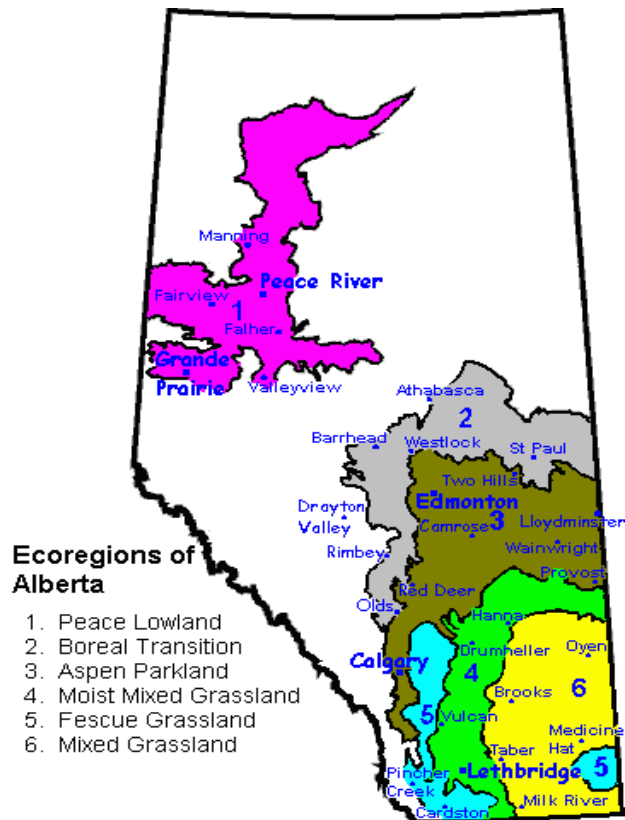
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This *AgriProfit\$ Cost & Returns Report* presents the productive, economic & financial performance of cow/calf producers in the Northern Region for the 2008 production year.

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 *AgriProfit\$* participants in the Peace Lowland & portions of the Boreal Transition grass types.
- an average of the "low cost" herds in the region during 2008. This "**Low Cost**" average includes the lower 50% of producers in the pool as ranked by total costs / lb. of calf weaned*.
- a five year average of the "low cost" herds in Northern Alberta. This long term average includes producers in the lower half of each year group as ranked by total costs / lb. of calf weaned.



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 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.

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. If you are interested in obtaining information on specific regions, please contact the Economics Unit at:

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* For this analysis total production cost (TPC) per lb. weaned was the primary criteria for identifying the top management herd groupings. 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 Alberta sample.

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October-11

Historical Review of Alberta Cow/Calf Operations Economic, Financial & Productive Performance: 2004 - 2008

Benchmark Comparables: Northern Alta vs. '04-08 N. Alta 5 Year Low TPC Group

Enterprise Type: Weaned-Calf

Enterprise Economic Performance: Major Unit Cost & Returns Groups

	----- \$ / Lb. Weaned -----					N.AB 5Yr Low TPC
	2004	2005	2006	2007	2008	1.011
Weaned Calf Value	0.941	1.253	1.083	0.928	0.978	1.011
Winter Feed & Bedding Costs	0.491	0.349	0.443	0.426	0.475	0.350
Pasture Costs	0.297	0.433	0.343	0.386	0.389	0.339
Labour Costs	0.127	0.100	0.090	0.084	0.088	0.092
Other Variable Costs	0.197	0.177	0.148	0.163	0.138	0.143
Fixed Costs	0.099	0.080	0.072	0.085	0.081	0.065
Total Production Costs	1.212	1.139	1.095	1.144	1.170	0.989

Farm Financial Performance Indicators:

	2004	2005	2006	2007	2008	N.AB 5Yr Low TPC
<u>ROAD to Profitability</u>						
Risk (Debt to Asset Ratio)	0.19	0.22	0.16	0.17	0.18	0.17
Operating Expense Ratio	0.67	0.64	0.62	0.68	0.61	0.60
Asset Return	0.02	0.04	0.03	0.01	0.03	0.04
Debt Payout to Profitability	9.18	4.98	5.17	9.52	4.53	3.65
	46,939	97,778	76,585	32,364	77,982	94,566
<u>The "3-C's"</u>						
Current Ratio	1.78	2.01	2.92	3.11	3.09	3.40
Calif. Working Cap. Ratio	0.51	0.73	1.24	1.03	0.82	1.15
Capital Turnover Ratio	0.15	0.20	0.16	0.07	0.17	0.18
Farm Size (Acres)	5,021	2,998	3,203	2,457	2,620	2,968

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

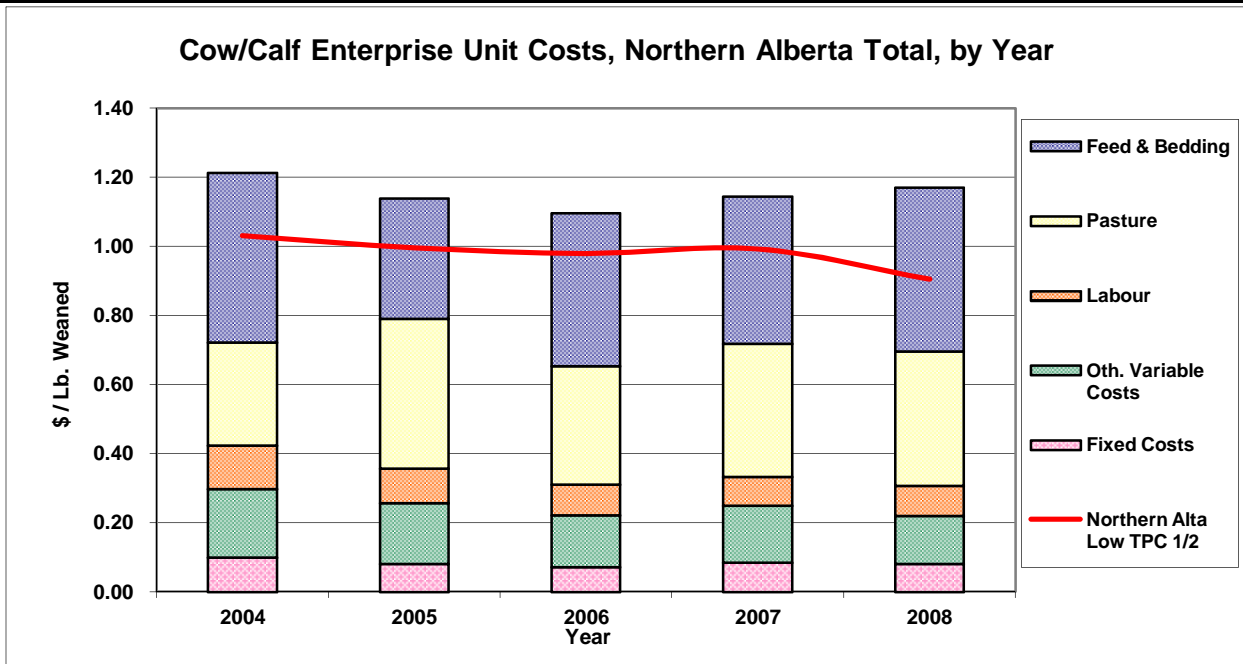
Current Ratio = Current Assets / Current Liabilities
 Calif. Working Cap. Ratio = Working Capital / Total Expenses
 Capital Turnover = Value of Production / Total Farm Assets
 Farm Size = Total Acres in crops, forages & grazing
 (includes all acres owned, rented & leased)

Productive Performance Indicators:

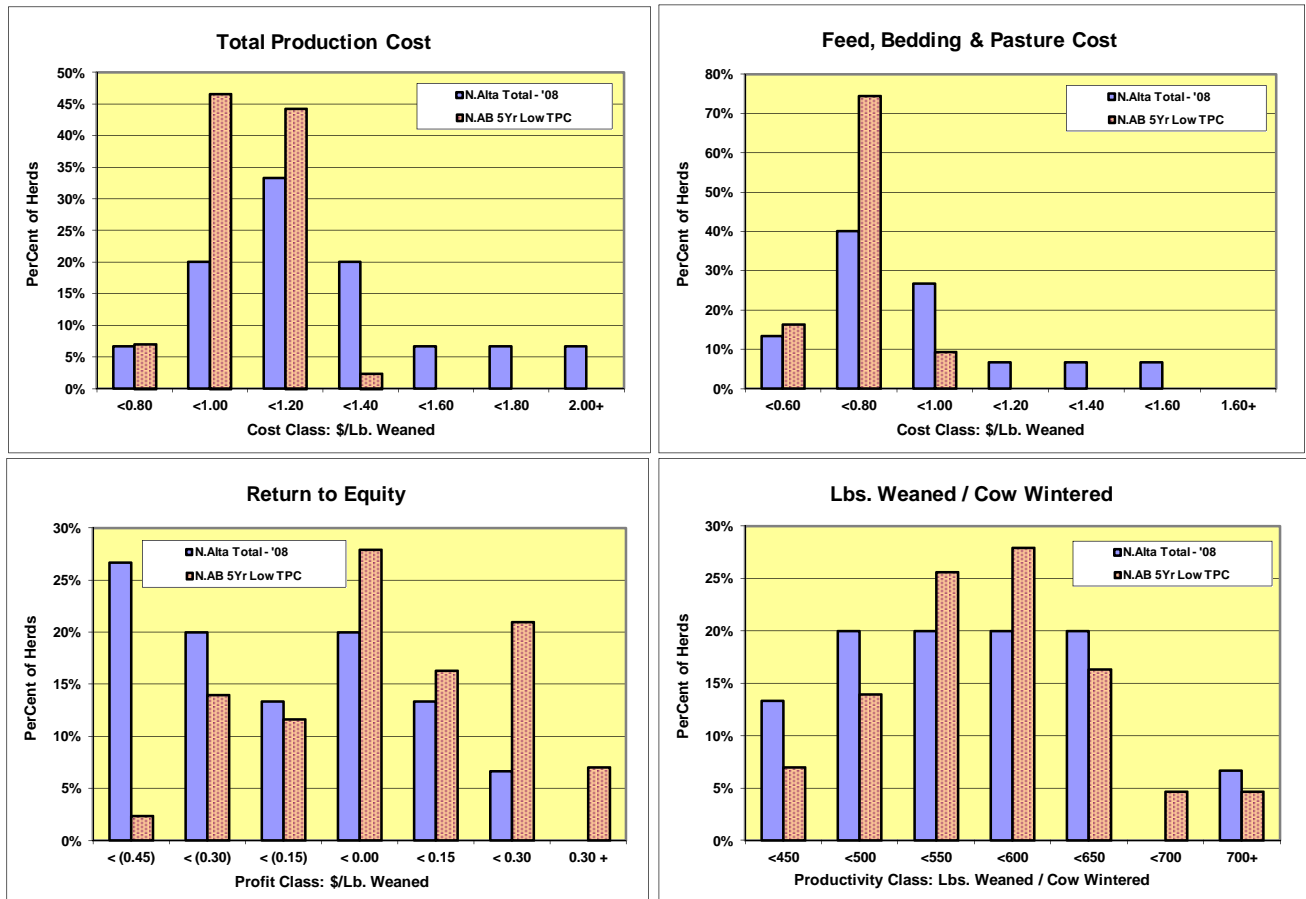
	2004	2005	2006	2007	2008	N.AB 5Yr Low TPC
Calf Crop (%)	88.3	84.8	85.3	82.4	84.3	87.1
Lbs. Weaned/Cow Wintered	552.7	485.2	545.2	503.4	529.4	550.8
Wean Wt as a % of Cow Wt.	45.2	41.6	41.9	41.3	43.0	44.3
Feeding Season Days	194.9	153.8	185.4	167.6	169.4	165.1
Tonnes Fed per Cow (as fed)	5.5	4.1	5.6	4.5	5.1	4.3
G rowth (weaning weight)	583.5	538.1	563.5	553.2	578.2	584.7
O pen Cows (%)	6.2	7.5	11.8	10.2	10.0	8.3
L ength of Calving Period	148.2	162.3	144.2	121.3	121.6	124.5
D eath Loss of Calves (%)	3.7	3.3	4.1	6.0	4.1	3.9

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

Benchmark Comparables: Northern Alta, by Year
Enterprise Type: Weaned-Calf



Frequency Distributions: Selected Economic & Production Indicators, Northern Alberta Total, 2008 vs. 5 Year N. Alta Low Cost Group



2008 Cow/Calf Enterprise Overview

Economic & Physical Performance Comparisons

Benchmark Comparables: Northern Alta Total & Low Cost; N. Alta 5 Year Low TPC Groups

Enterprise Type: Weaned-Calf

Economic Performance Indicators:

	\$ / Lb. Weaned		
	Northern Alta		N.AB 5Yr
	Total	Low TPC	Low TPC
Production Stock Sales	0.978	0.938	1.011
Value of Production	0.963	0.905	0.978
Winter Feed Costs	0.452	0.296	0.335
Bedding Costs	0.023	0.006	0.015
Pasture Costs	0.389	0.357	0.339
Labour Costs	0.088	0.080	0.092
Other Variable Costs	0.138	0.116	0.143
Depreciation & Capital Lease Payments	0.058	0.038	0.047
Other Fixed Costs	0.023	0.012	0.018
Total Cash Costs	1.041	0.794	0.871
Total Production Costs	1.170	0.905	0.989
Contribution Margin	(0.126)	0.050	0.054
Gross Margin	(0.078)	0.111	0.107
Return to Investment	(0.194)	0.001	(0.003)
Return to Equity & Management	(0.207)	0.000	(0.011)
Total Investment (\$ / cow wintered)	1,415	1,271	1,313

Physical Performance Indicators:

	Northern Alta				Northern Alta		
	Total	Low TPC	N.AB 5Yr Low TPC		Total	Low TPC	N.AB 5Yr Low TPC
Conception Rate (%)	89.1	92.9	90.7	Cows Wintered	194.5	181.4	224.0
Calving Rate (%)	98.0	100.9	99.5	Cows per Bull	23.4	25.9	25.6
Weaning Rate (%)	96.5	95.5	96.5	Labour Hours per Cow	4.3	4.4	4.8
Calf Crop (%)	84.3	89.5	87.1	AUM's/Cow Wintered	10.5	11.1	9.9
% Calved - 1st 2 Cycles	78.2	87.3	83.1	Feeding Season Days	169.4	135.2	165.1
Lbs. Weaned/Cow Exposed	482.0	553.7	509.1	Tonnes Fed per Cow			
Lbs. Weaned/Cow Wintered	529.4	583.4	550.8	- as-fed	5.1	3.8	4.3
Wean Wt as a % of Cow Wt.	43.0	47.3	44.3	- dry matter			
Weight per Day of Age (lbs.)	2.45	2.73	2.56				

	Northern Alta		N.AB 5Yr
	Total	Low TPC	Low TPC
G rowth (weaning weight)	578.2	618.5	584.7
O pen Cows (%)	10.0	6.8	8.3
L ength of Calving Period	121.6	102.8	124.5
D eath Loss of Calves (%)	4.1	3.1	3.9

2008 Cow/Calf Enterprise Overview

Economic & Financial Performance Comparisons

Benchmark Comparables: Northern Alta Total & Low Cost; N. Alta 5 Year Low TPC Groups

Enterprise Type: Weaned-Calf

Economic Performance Indicators:

	<i>\$ / Cow Wintered</i>		
	Northern Alta		N.AB 5Yr
	Total	Low TPC	Low TPC
Production Stock Sales	518.06	546.94	557.08
Value of Production	509.97	527.86	538.73
Winter Feed Costs	239.27	172.45	184.70
Bedding Costs	12.06	3.75	8.08
Pasture Costs	206.08	208.03	186.46
Labour Costs	46.52	46.46	50.73
Other Variable Costs	72.96	67.89	78.82
Depreciation & Capital Lease Payments	30.61	22.44	25.67
Other Fixed Costs	12.22	6.81	10.06
Total Cash Costs	551.36	463.19	479.64
Total Production Costs	619.70	527.82	544.52
Contribution Margin	(66.91)	29.28	29.94
Gross Margin	(41.39)	64.67	59.09
Return to Investment	(102.90)	0.62	(1.83)
Return to Equity & Management	(109.73)	0.04	(5.79)

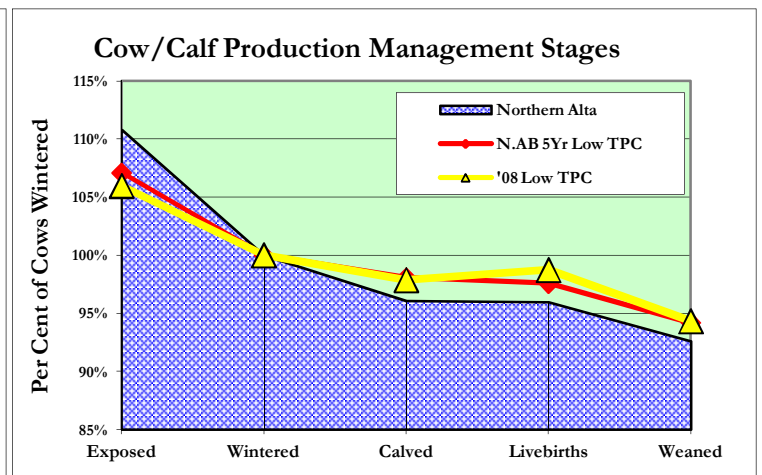
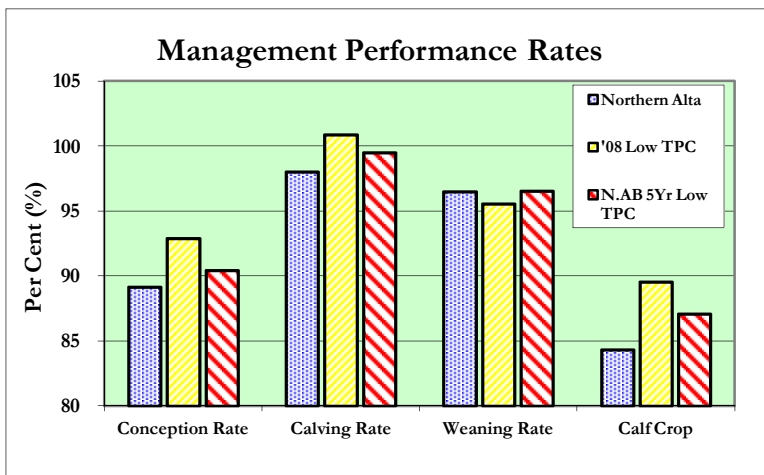
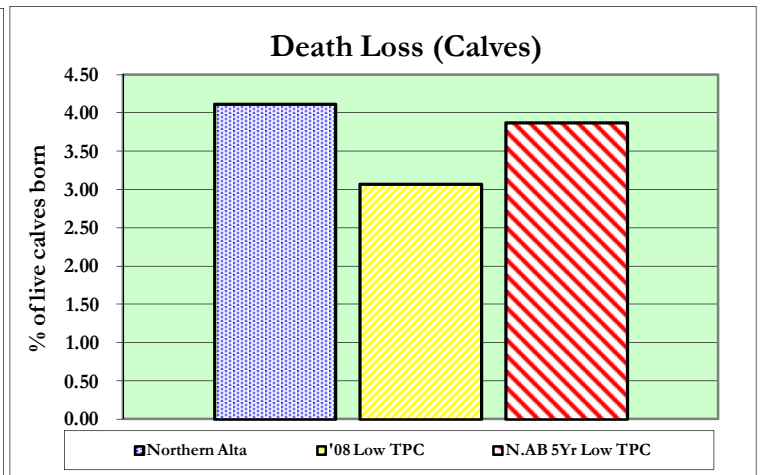
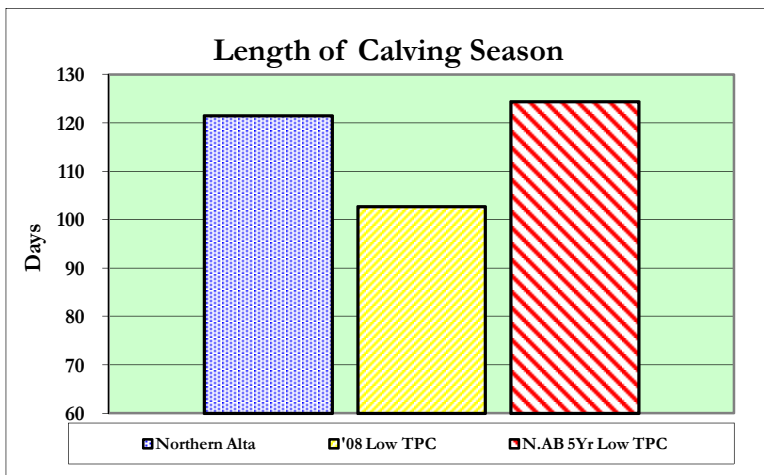
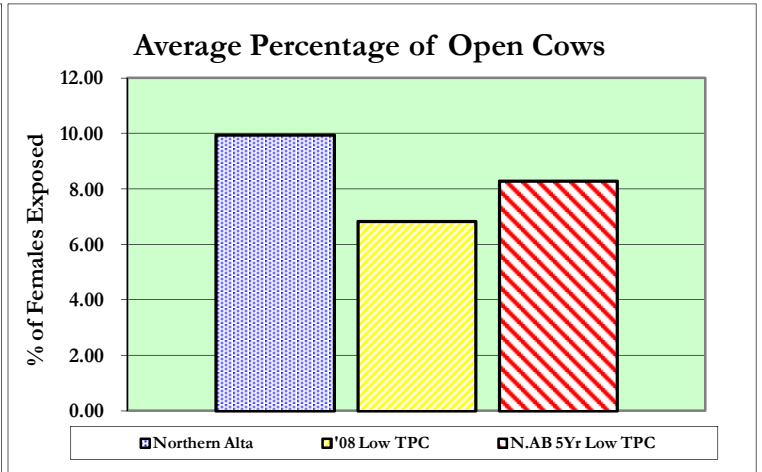
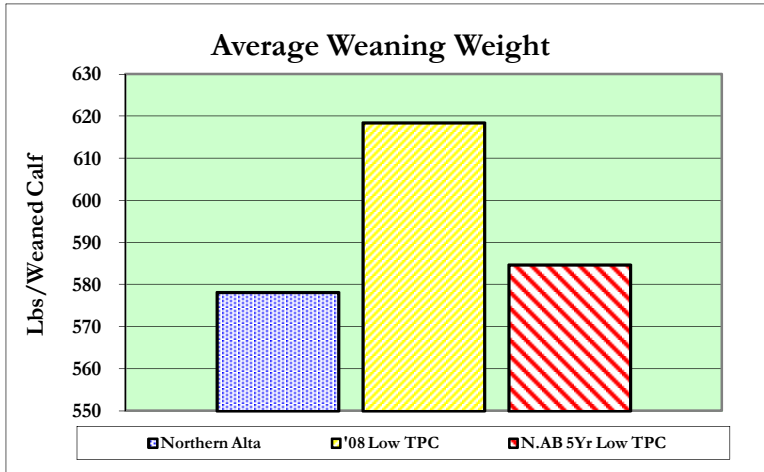
Financial Performance Indicators:

<i>ROAD to Profitability</i>	Northern Alta		N.AB 5Yr Low TPC	
	Total	Low TPC		
Risk (Debt to Asset Ratio)	0.18	0.17	0.17	= Total Liabilities / Total Assets
Operating Expense Ratio	0.61	0.57	0.60	= Operating Expenses / Value of Production
Asset Return	0.03	0.04	0.04	= Return on Assets / Total Farm Assets
Debt Payout	4.53	3.61	3.65	= Total Liabilities / Net Farm Income
to Profitability	77,981.55	94,801.65	94,565.65	= Net Farm Income
<i>The "3-C's"</i>				
Current Ratio	3.09	5.06	3.40	= Current Assets / Current Liabilities
Calif. Working Cap. Ratio	0.82	1.11	1.15	= Working Capital / Total Expenses
Capital Turnover Ratio	0.17	0.16	0.18	= Value of Production / Total Farm Assets
Farm Size (Acres)	2,620	2,254	2,968	= Total Acres in crops, forages & grazing (includes all acres owned, rented & leased)

2008 Cow/Calf Enterprise Overview

Physical Performance Comparisons

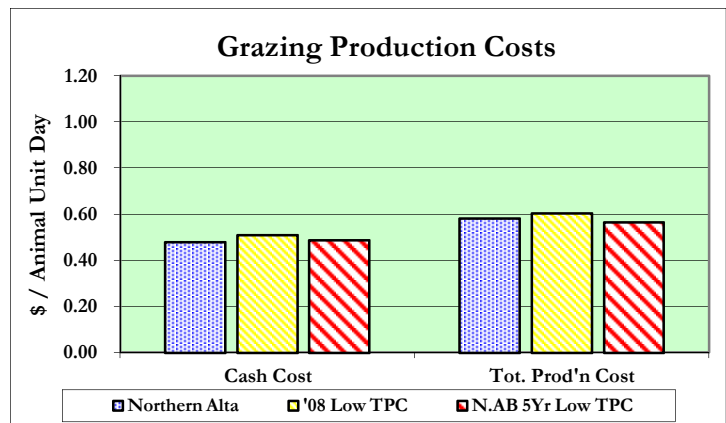
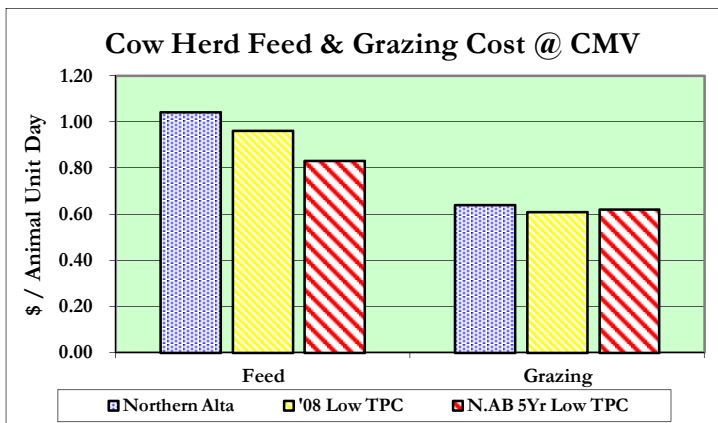
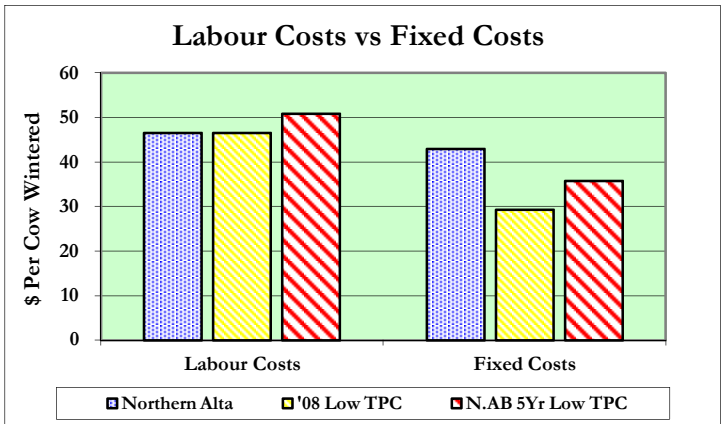
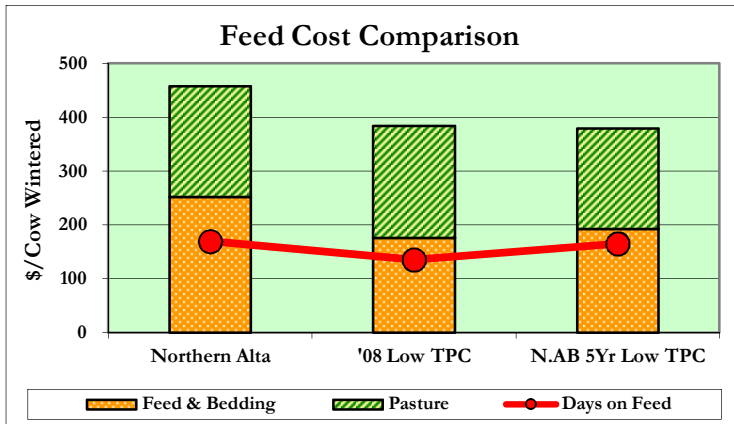
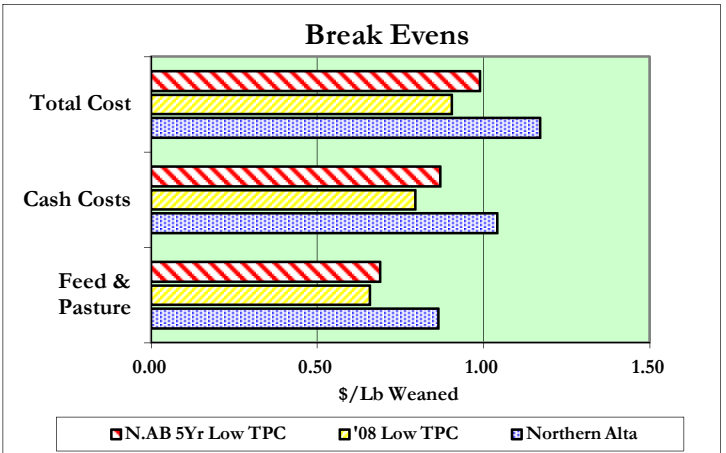
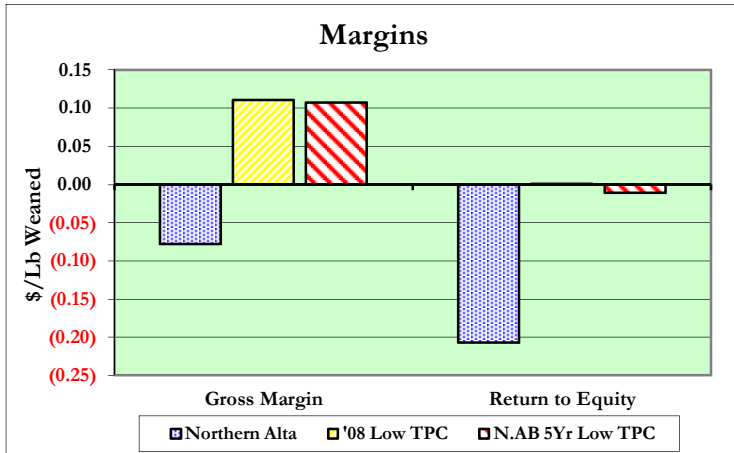
Benchmark Comparables: Northern Alta Total & Low Cost; N. Alta 5 Year Low TPC Groups



2008 Cow/Calf Enterprise Overview

Economic Performance Comparisons

Benchmark Comparables: Northern Alta Total & Low Cost; N. Alta 5 Year Low TPC Groups



Cow/Calf Enterprise Unit Cost & Returns Detail - 2008**Economic Performance Comparisons**

		Northern Alta		N.AB 5Yr
		Total	Low TPC	Low TPC
		----- \$/Lb Weaned -----		
(A)				
1.	Weaned Calves	0.978	0.937	1.011
2.	Feeder Calves	0.000	0.000	0.000
3.	Slaughter Cattle	0.000	0.000	0.000
4.	Purebred Calves	0.000	0.000	0.000
5.	Baby Calves	0.000	0.001	0.001
6.	Cull Cows/Open Heifers	0.129	0.085	0.075
7.	Bulls	0.020	0.018	0.013
8.	Bred Cows/Bred Heifers	0.011	0.021	0.014
9.	Miscellaneous Receipts	0.000	0.000	0.001
10.	Government Programs	0.003	0.000	0.007
11.	Inventory Adjustment	0.163	0.107	0.114
12.	Less: Cattle Purchases	0.342	0.264	0.258
Value of Production		0.963	0.905	0.978
(B)				
1.	Winter Feed	0.452	0.296	0.335
2.	Bedding	0.023	0.006	0.015
3.	Pasture	0.389	0.357	0.339
4.	Veterinary & Medicine	0.034	0.030	0.034
5.	Breeding Fees/Bull Rental	0.000	0.000	0.001
6.	Trucking & Marketing Charges	0.022	0.023	0.022
7.	Fuel	0.023	0.019	0.019
8.	Repairs - Machine	0.014	0.013	0.015
9.	Repairs - Corrals & Buildings	0.006	0.006	0.007
10.	Utilities & Miscellaneous Expenses	0.023	0.020	0.028
11.	Custom Work & Specialized Labour	0.014	0.005	0.011
12.	Operating Interest Paid	0.002	0.001	0.006
13.	Paid Labour & Benefits	0.015	0.007	0.019
14.	Unpaid Labour	0.072	0.072	0.073
Variable Costs		1.090	0.855	0.924
(C)				
1.	Share/Lease Cattle Payments	0.002	0.005	0.002
2.	Taxes, Water Rates, Lic. & Insurance	0.008	0.006	0.009
3.	Equipment & Building	0.057	0.038	0.044
	a) Depreciation			
	b) Lease Payments	0.001	0.000	0.002
4.	Paid Capital Interest	0.013	0.001	0.007
Total Capital Costs		0.081	0.050	0.065
(D)	Cash Costs	(B+C-B14-C3)	1.041	0.794
(E)	Total Production Costs	(B+C)	1.170	0.989
(F)	Gross Margin	(A-D)	(0.078)	0.107
	Return to Unpaid Labour	(A-D+B14)	(0.135)	0.063
	Return to Investment	(A-E+C4)	(0.194)	(0.003)
	Return to Equity	(A-E)	(0.207)	(0.011)

Cow/Calf Enterprise Unit Cost & Returns Detail - 2008**Economic Performance Comparisons**

		Northern Alta		N.AB 5Yr
		<u>Total</u>	<u>Low TPC</u>	<u>Low TPC</u>
		----- \$/Cow Wintered -----		
(A)				
1.	Weaned Calves	517.92	546.61	556.65
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	0.14	0.33	0.42
6.	Cull Cows/Open Heifers	68.50	49.37	41.56
7.	Bulls	10.82	10.46	7.25
8.	Bred Cows/Bred Heifers	5.82	12.46	7.78
9.	Miscellaneous Receipts	0.00	0.00	0.62
10.	Government Programs	1.47	0.18	4.10
11.	Inventory Adjustment	86.43	62.68	62.60
12.	Less: Cattle Purchases	181.12	154.23	142.25
Value of Production		509.97	527.86	538.73
(B)				
1.	Winter Feed	239.27	172.45	184.70
2.	Bedding	12.06	3.75	8.08
3.	Pasture	206.08	208.03	186.46
4.	Veterinary & Medicine	18.05	17.27	18.97
5.	Breeding Fees/Bull Rental	0.00	0.00	0.70
6.	Trucking & Marketing Charges	11.42	13.51	11.86
7.	Fuel	12.34	11.05	10.48
8.	Repairs - Machine	7.62	7.87	8.20
9.	Repairs - Corrals & Buildings	2.97	3.56	4.01
10.	Utilities & Miscellaneous Expenses	12.20	11.40	15.18
11.	Custom Work & Specialized Labour	7.15	2.78	6.14
12.	Operating Interest Paid	1.22	0.44	3.27
13.	Paid Labour & Benefits	8.16	4.27	10.33
14.	Unpaid Labour	38.35	42.19	40.40
Variable Costs		576.88	498.57	508.79
(C)				
1.	Share/Lease Cattle Payments	1.31	3.02	1.32
2.	Taxes, Water Rates, Lic. & Insurance	4.07	3.21	4.78
3.	Equipment & Building	29.99	22.44	24.48
	a) Depreciation			
	b) Lease Payments	0.61	0.00	1.19
4.	Paid Capital Interest	6.83	0.58	3.96
Total Capital Costs		42.82	29.25	35.73
(D)	Cash Costs (B+C-B14-C3)	551.36	463.19	479.64
(E)	Total Production Costs (B+C)	619.70	527.82	544.52
(F)	Gross Margin (A-D)	(41.39)	64.67	59.09
	Return to Unpaid Labour (A-D+B14)	(71.38)	42.23	34.61
	Return to Investment (A-E+C4)	(102.90)	0.62	(1.83)
	Return to Equity (A-E)	(109.73)	0.04	(5.79)
Total Investment		1,414.68	1,270.97	1,312.83

2008 Forage & Pasture Enterprise Cost & Returns Analysis
Northern Alta

----- Forages -----				----- Pastures -----		
	Alfalfa /Grass Hay	Mixed Grass Hay	Grain Silage	Tame Grass Pasture	Tame /Native Mixed	Swath Grazing
Average field size (acres)	96.3	42.8	65.8	287.0	270.1	116.4
Number of Observations	24	4	12	29	30	7
	-----\$/Tonne-----			-----\$/AUM-----		
(A) 1. Crop Sales	50.24	45.06	38.37	19.67	19.11	20.06
2. Crop Insurance Receipts	0.00	0.00	0.98	0.32	0.30	1.25
3. Miscellaneous Receipts	0.00	0.00	0.00	0.00	0.00	0.00
4. Government Programs	0.00	0.00	0.00	0.00	0.00	0.00
5. Straw / Aftermath Grazing	1.91	5.25	0.44	0.00	0.00	0.00
Gross Return	52.14	50.31	39.80	19.99	19.41	21.31
(B) 1. Seed	0.00	0.00	3.19	0.00	0.00	2.81
2. Fertilizer	0.32	0.00	6.58	2.57	0.00	12.02
3. Chemicals	0.00	0.00	1.36	0.00	0.04	3.21
4. Crop Insurance Premiums	0.12	0.00	2.50	0.13	0.14	0.81
5. Trucking & Marketing	0.20	2.85	0.00	0.08	0.11	0.00
6. Fuel	6.27	11.76	4.97	1.31	0.98	1.42
7. Irrigation Fuel & Electricity	0.00	0.00	0.00	0.00	0.00	0.00
8. Repairs - Machinery	5.19	8.04	1.84	1.19	0.41	0.39
9. Repairs - Buildings	0.01	0.09	0.03	0.33	0.42	0.23
10. Utilities & Misc. Expenses	2.42	3.88	1.24	0.69	0.58	0.21
11. Custom Work & Specialized Labour	0.21	0.00	1.20	0.00	0.00	0.59
12. Operating Interest Paid	0.26	0.36	0.22	0.07	0.05	0.00
13. Paid Labour & Benefits	1.99	1.65	1.76	0.65	0.55	0.27
14. Unpaid Labour	5.56	9.35	3.13	1.76	2.17	0.57
Variable Costs	22.54	37.97	28.02	8.78	5.43	22.54
(C) 1. Cash/Share Rent & Land Lease	11.59	14.37	3.32	5.85	5.75	0.24
2. Taxes, Water Rates, Lic. & Insurance	1.01	2.25	0.63	0.90	1.02	0.36
3. Equip. & Bldg. a) Depreciation	9.06	15.02	4.84	0.98	0.88	0.40
b) Lease Payments	0.67	0.00	0.00	0.00	0.04	0.00
4. Paid Capital Interest	3.67	0.34	1.12	3.09	1.60	0.47
Total Capital Costs	26.01	31.98	9.90	10.82	9.29	1.47
(D) Cash Costs (B+C-B14-C3)	33.93	45.58	29.96	16.86	11.67	23.03
(E) Total Production Costs (B+C)	48.55	69.95	37.92	19.60	14.72	24.01
(F) Gross Margin (A-D)	18.21	4.73	9.83	3.12	7.73	(1.73)
Return to Unpaid Labour (A-E+B14)	9.15	(10.29)	5.00	2.14	6.86	(2.13)
Return to Investment (A-E+C4)	7.26	(19.30)	2.99	3.47	6.28	(2.23)
Return to Equity (A-E)	3.59	(19.64)	1.87	0.39	4.68	(2.70)
Return on Investment (%)	3.8	(4.4)	2.4	1.3	2.6	(1.8)
Total Investment (\$/acre)	278.65	446.37	687.17	367.56	325.85	446.38
Management						
Yield per Acre (tonnes or AUM's)	1.48	1.02	5.54	1.40	1.32	3.68
Expected Market Price (\$/unit)	50.24	45.06	38.37	19.67	19.11	20.06

* 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:

- cull & breeding stock sales,
- revenues from miscellaneous sources (eg. Program payments, patronage refunds, etc) as allocated to the cow/calf enterprise,
- inventory adjustments relating changes in the number & value of stock included in the enterprise,
- 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, licenses & 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 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 / # 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 - $\frac{\text{Total Lbs. Weaned}}{\# \text{ Bred Females Exposed}}$

Weaned 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 / Bulls - # 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 (%) - $\frac{\# \text{ Calves Died}}{\text{Live Births}}$