

# *AgriProfit\$*

Benchmarks for Alberta Cattlemen

Economics & Competitiveness

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

Comparing:

Alberta Provincial Total  
Average, Low & High Total Cost  
Management Groupings

Production Year - 2011

December, 2015



## Forward

This *AgriProfit\$ Cost & Returns Report* presents a preliminary summary of the productive, economic & financial performance of Alberta cow/calf producers for the 2011 production year.

Field research was undertaken through Alberta Agriculture's *AgriProfit\$ Business Analysis & Research* program with the cooperation of producers across the Province.

The intent of this report is to benchmark three specific management groupings:

- an "Alberta Total" average including all program participants across the 6 grass type regions,
- an average of the "low cost" herds across the Province for '11. This "**Low Cost**" average includes the lower 1/3rd of producers in the pool as ranked by total costs / lb. of calf weaned\*, &
- comparison of the '11 "Alberta Total" with the long term, 5 year ('07 - '11) average of low cost herds across the Province.

This report focuses on the movement of unit production costs, financial position and productivity over time at the provincial level. It is useful for charting general changes over time. Regional & grass type analyses are more appropriate for business level comparisons.

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

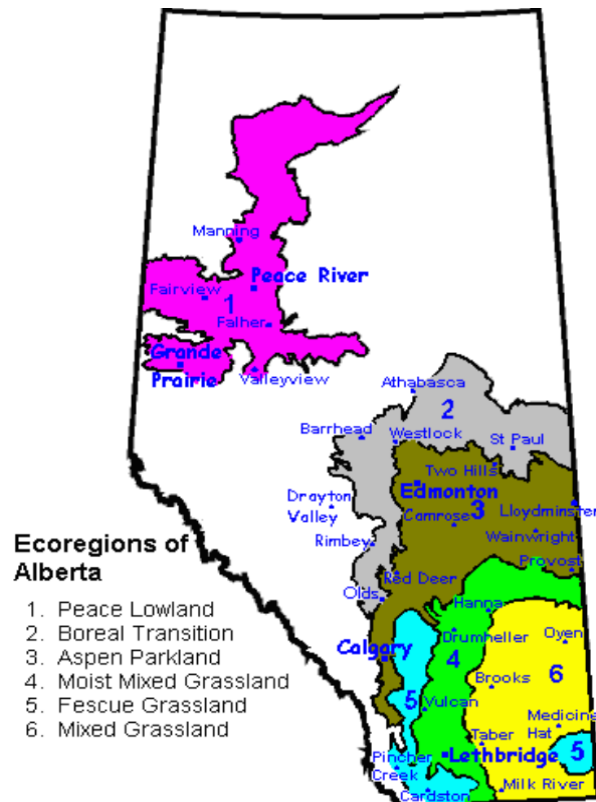
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\* For this analysis, total production cost (TPC) per lb. weaned was the primary criteria for identifying the top management herd groupings. It should be noted, however, that there are several other factors that may contribute to the success of a cow/calf 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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December-15



## Historical Review of Alberta Cow/Calf Operations Economic, Financial & Productive Performance: 2007 - 2011

Benchmark Comparables: Alberta Total vs. '07-'11 Alta 5 Year Low TPC Group  
Enterprise Type: Weaned-Calf

### Enterprise Economic Performance: Major Unit Returns & Costs Groups

	----- \$ / Lb. Weaned -----					AB '07-'11 Low TPC
	2007	2008	2009	2010	2011	
<b>Weaned Calf Values</b>	0.941	0.989	0.992	1.206	1.489	1.121
<b>Winter Feed &amp; Bedding Costs</b>	0.368	0.371	0.436	0.443	0.427	0.286
<b>Pasture Costs</b>	0.432	0.451	0.430	0.463	0.491	0.421
<b>Labour Costs</b>	0.085	0.090	0.080	0.082	0.092	0.084
<b>Other Variable Costs</b>	0.146	0.136	0.132	0.142	0.150	0.118
<b>Fixed Costs</b>	0.093	0.084	0.077	0.080	0.081	0.054
<b>Total Production Costs</b>	1.124	1.132	1.155	1.210	1.241	0.963

### Farm Financial Performance Indicators:

	2007	2008	2009	2010	2011	AB '07-'11 Low TPC
<b><u>ROAD to Profitability</u></b>						
Risk (Debt to Asset Ratio)	0.16	0.11	0.17	0.17	0.15	0.10
Operating Expense Ratio	0.67	0.63	0.68	0.52	0.50	0.54
Asset Return	0.02	0.02	0.02	0.04	0.05	0.03
Debt Payout to Profitability	7.98	5.90	8.77	4.03	2.63	2.79
	52,967	63,987	56,682	134,168	201,858	126,426
<b><u>The "3-C's"</u></b>						
Current Ratio	2.93	3.23	2.86	3.59	3.66	5.97
Calif. Working Cap. Ratio	0.85	0.88	0.76	0.98	1.14	1.49
Capital Turnover Ratio	0.12	0.10	0.13	0.13	0.15	0.11
Farm Size (Acres)	4,688	5,027	5,290	4,874	4,870	8,514

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

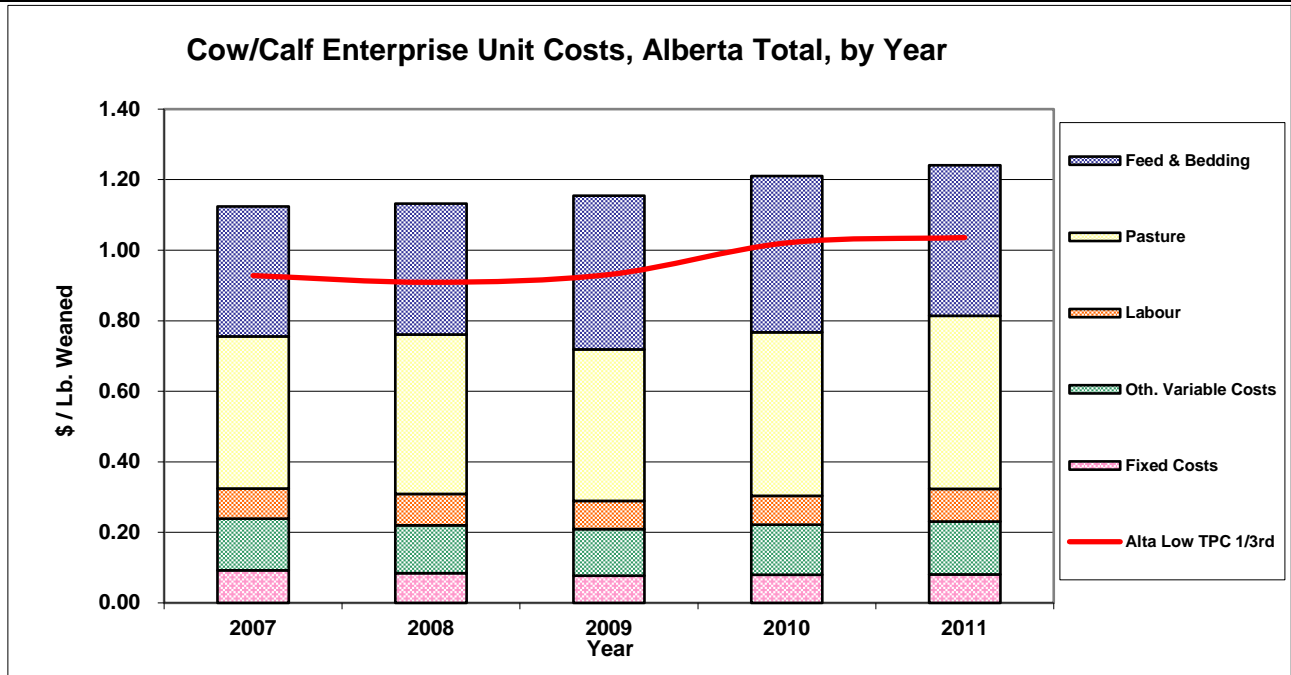
Current Ratio = Current Assets / Current Liabilities  
Calif. Working Cap. Ratio = Working Capital / Total Expenses  
Capital Turnover = Value of Production / Total Farm Assets  
Farm Size = Total Acres in crops, forages & grazing  
(includes all acres owned, rented & leased)

### Productive Performance Indicators:

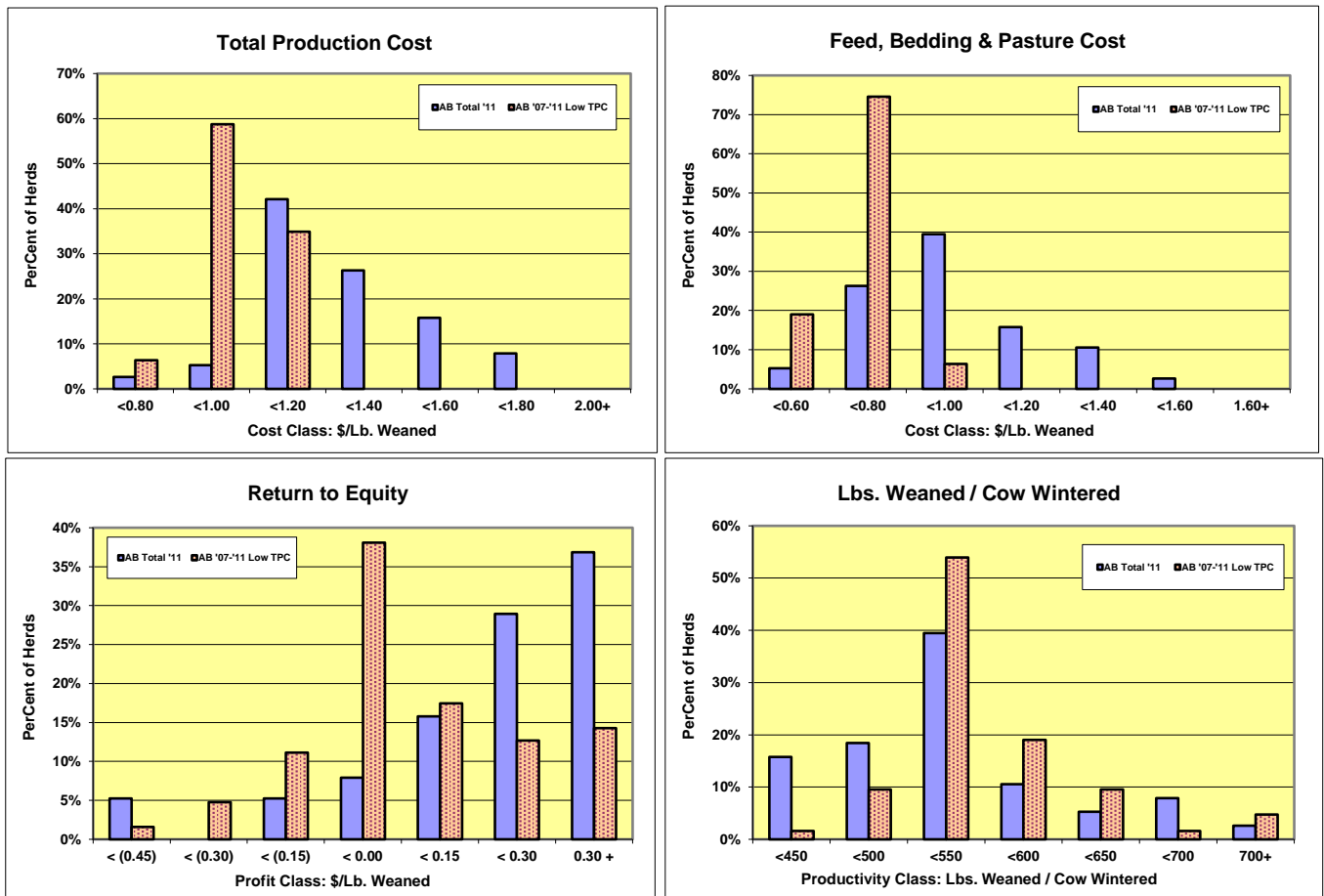
	2007	2008	2009	2010	2011	AB '07-'11 Low TPC
<b>Calf Crop (%)</b>	83.9	83.9	85.1	80.9	82.5	85.4
<b>Lbs. Weaned/Cow Wintered</b>	505.2	525.0	511.6	525.6	528.7	543.9
<b>Wean Wt as a % of Cow Wt.</b>	41.8	43.2	42.3	44.0	42.6	44.5
<b>Feeding Season Days</b>	141.2	136.0	142.1	140.7	139.0	121.2
<b>Tonnes Fed per Cow (as fed)</b>	3.8	3.6	3.7	3.4	3.7	2.7
<b>Growth (weaning weight)</b>	541.8	557.5	544.5	577.2	566.5	572.9
<b>Open Cows (%)</b>	9.3	11.1	8.9	11.7	11.4	9.2
<b>Length of Calving Period</b>	108.5	103.3	97.1	98.6	87.7	87.3
<b>Death Loss of Calves (%)</b>	5.0	3.5	4.4	4.7	3.6	3.4

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

Benchmark Comparables: Alberta Total Components, by Year vs. Low TPC 1/3rd Total  
Enterprise Type: Weaned-Calf



### Frequency Distributions: Selected Economic & Production Indicators, Alberta Total, 2011 vs. 5 Year Alta Low Cost Group



## 2011 Cow/Calf Enterprise Overview

Economic & Physical Performance Comparisons

Benchmark Comparables: Alberta Total Total & Low Cost; Alta 5 Year Low TPC Groups

Enterprise Type: Weaned-Calf

### Economic Performance Indicators:

	\$ / Lb. Weaned		
	Alberta Total	'07-'11	
	Total	Low TPC	Low TPC
Production Stock Sales	1.490	1.482	1.121
<b>Value of Production</b>	<b>1.689</b>	<b>1.717</b>	<b>1.156</b>
Winter Feed Costs	0.406	0.302	0.278
Bedding Costs	0.021	0.013	0.008
Pasture Costs	0.491	0.450	0.421
Labour Costs	0.092	0.089	0.084
Other Variable Costs	0.150	0.126	0.118
Depreciation & Capital Lease Payments	0.056	0.042	0.040
Other Fixed Costs	0.025	0.014	0.014
<b>Total Cash Costs</b>	<b>1.124</b>	<b>0.945</b>	<b>0.871</b>
<b>Total Production Costs</b>	<b>1.241</b>	<b>1.036</b>	<b>0.963</b>
<b>Contribution Margin</b>	<b>0.529</b>	<b>0.737</b>	<b>0.247</b>
<b>Gross Margin</b>	<b>0.565</b>	<b>0.772</b>	<b>0.285</b>
<b>Return to Investment</b>	<b>0.457</b>	<b>0.685</b>	<b>0.196</b>
<b>Return to Equity &amp; Management</b>	<b>0.448</b>	<b>0.681</b>	<b>0.193</b>
<b>Total Investment (\$ / cow wintered)</b>	<b>1,913</b>	<b>1,891</b>	<b>1,470</b>

### Physical Performance Indicators:

	Alberta Total				Alberta Total		
	Total	Low TPC	'07-'11 Low TPC		Total	Low TPC	'07-'11 Low TPC
Conception Rate (%)	88.0	90.9	90.1	Cows Wintered	211.7	246.1	258.6
Calving Rate (%)	97.7	98.3	98.1	Cows per Bull	21.6	21.2	21.9
Weaning Rate (%)	96.2	97.3	96.8	Labour Hours per Cow	4.2	4.0	3.9
Calf Crop (%)	82.5	86.7	85.4	AUM's/Cow Wintered	10.9	11.4	11.1
% Calved - 1st 2 Cycles	88.1	89.4	89.9	Feeding Season Days	139.0	124.9	121.2
Lbs. Weaned/Cow Exposed	467.4	498.5	489.7	Tonnes Fed per Cow			
Lbs. Weaned/Cow Wintered	528.7	562.7	543.9	- as-fed	3.7	3.0	2.7
Wean Wt as a % of Cow Wt.	42.6	44.8	44.5	- dry matter			
Weight per Day of Age (lbs.)	2.40	2.72	2.62				

	Alberta Total		'07-'11
	Total	Low TPC	Low TPC
<b>G</b> rowth (weaning weight)	566.5	574.7	572.9
<b>O</b> pen Cows (%)	11.4	8.2	9.2
<b>L</b> ength of Calving Period	87.7	84.3	87.3
<b>D</b> eath Loss of Calves (%)	3.6	2.9	3.4

## 2011 Cow/Calf Enterprise Overview

Economic & Financial Performance Comparisons

Benchmark Comparables: Alberta Total Total & Low Cost; Alta 5 Year Low TPC Groups

Enterprise Type: Weaned-Calf

### Economic Performance Indicators:

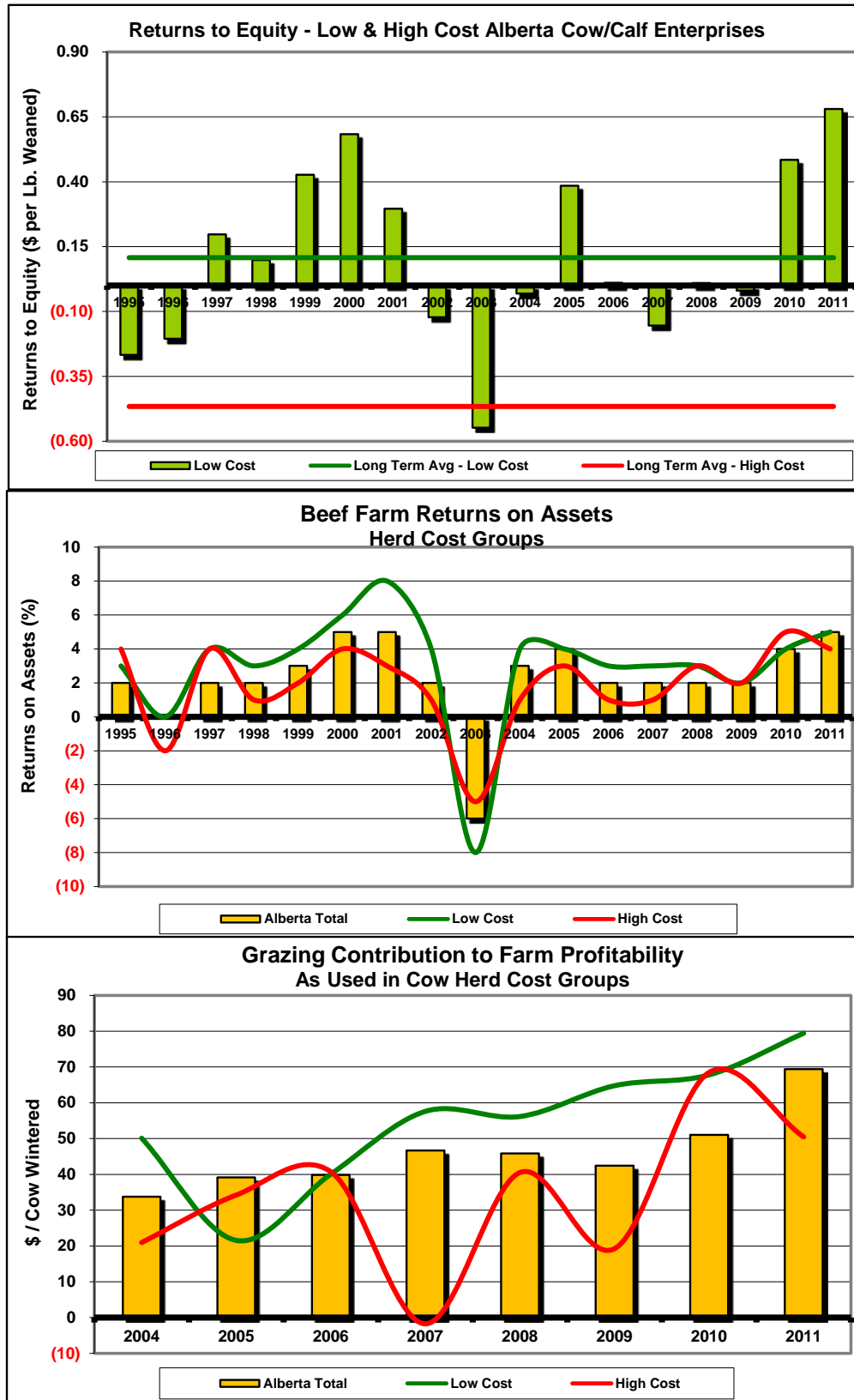
	\$ / Cow Wintered		
	Alberta Total Total	Low TPC	'07-'11 Low TPC
Production Stock Sales	787.61	833.67	609.78
<b>Value of Production</b>	<b>892.97</b>	<b>965.86</b>	<b>628.60</b>
Winter Feed Costs	214.75	169.84	151.08
Bedding Costs	10.95	7.20	4.50
Pasture Costs	259.39	253.43	228.95
Labour Costs	48.74	50.12	45.48
Other Variable Costs	79.25	70.67	64.18
Depreciation & Capital Lease Payments	29.44	23.87	21.91
Other Fixed Costs	13.40	7.77	7.65
<b>Total Cash Costs</b>	<b>594.11</b>	<b>531.54</b>	<b>473.44</b>
<b>Total Production Costs</b>	<b>655.92</b>	<b>582.90</b>	<b>523.75</b>
<b>Contribution Margin</b>	<b>279.89</b>	<b>414.60</b>	<b>134.41</b>
<b>Gross Margin</b>	<b>298.86</b>	<b>434.32</b>	<b>155.16</b>
<b>Return to Investment</b>	<b>241.62</b>	<b>385.45</b>	<b>106.59</b>
<b>Return to Equity &amp; Management</b>	<b>237.04</b>	<b>382.96</b>	<b>104.85</b>

### Financial Performance Indicators:

<i>ROAD to Profitability</i>	Alberta Total		'07-'11	
	Total	Low TPC	Low TPC	
Risk (Debt to Asset Ratio)	0.15	0.09	0.10	= Total Liabilities / Total Assets
Operating Expense Ratio	0.50	0.45	0.54	= Operating Expenses / Value of Production
Asset Return	0.05	0.05	0.03	= Return on Assets / Total Farm Assets
Debt Payout	2.63	1.74	2.79	= Total Liabilities / Net Farm Income
to Profitability	201,858.46	208,543.87	126,425.91	= Net Farm Income
<b>The "3-C's"</b>				
Current Ratio	3.66	9.53	5.97	= Current Assets / Current Liabilities
Calif. Working Cap. Ratio	1.14	1.97	1.49	= Working Capital / Total Expenses
Capital Turnover Ratio	0.15	0.12	0.11	= Value of Production / Total Farm Assets
Farm Size (Acres)	4,870	8,158	8,514	= Total Acres in crops, forages & grazing (includes all acres owned, rented & leased)

# Long Term Cow/Calf Operation Overview

Benchmark Comparables: Alberta Total Low Cost & Alberta Total High Cost Herds



## *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 1<sup>st</sup> 2 Cycles (%) - # Calved Cycle 1 & 2  
Total Calved

Lbs. Weaned/Cow Exposed - Total Lbs. Weaned  
# Females Exposed

Lbs. Weaned/Cow Wintered - Total Lbs. Weaned  
# Bred Females Exposed

Weaned Wt. As % of Cow Wt. - Avg. Lbs. Weaned  
Avg. Mature Cow Wt.

Weight per day of Age (lbs.) – Avg. Lbs. Weaned  
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 – Total Enterprise AUM’s  
Cows Wintered

Feeding Season Days – Days Fed (in yard)

Tonnes fed per Cow –  
Tonnes Total Feed (As-Fed)  
# Cows Wintered  
Tonnes Total Feed (Dry Matter)  
# Cows Wintered

### **GOLD Indicators**

Growth (Wean wt.) - Total Lbs. Weaned  
# Calves Weaned

Open Cows (%) - # Open Cows & Heifers  
# Exposed

Length of Calving Period – Days from 1<sup>st</sup> to last calf

Death Loss of Calves (%) - # Calves Died  
Live Births