

# *AgriProfit\$*

Benchmarks for Alberta Cattlemen

**Economics & Competitiveness**

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

Comparing:

Alberta Total, Top Profitability  
& Low Production Cost  
Management Groupings

Production Year - 2000

Nov-03



## Foreword

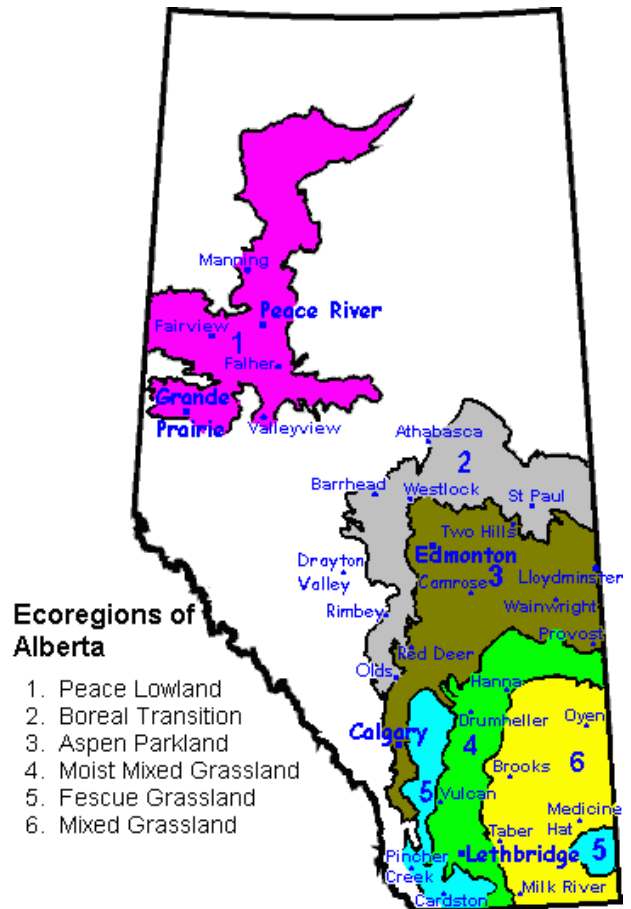
This *AgriProfit\$ Cost & Returns Report* presents the productive, economic & financial performance of cow/calf producers across Alberta for the 2000 production year.

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. This "**Low Cost**" average includes the lower 1/3rd of producers in the pool as ranked by total costs / lb. of calf weaned\*.
- an average of the "top profit" herds across Alberta. This "**Top R2E**" average includes the upper 1/3rd of producers in the pool as ranked by profitability.\*

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:

J.G. O'Donoghue Building  
#302, 7000 - 113 Street  
Edmonton, Alberta  
T6H 5T6

Tel: (780) 422-3771  
Fax: (780) 427-5220

\* For this analysis, return to equity (R2E) per lb. weaned & total production cost (TPC) per lb. weaned were 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:** The regional and top management groups provided sufficient 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.

Dale A. Kaliel  
Sr. Economist: Production Economics

Brian Perillat  
Production Economist: Livestock & Forages

## 2000 Cow/Calf Enterprise Overview

Economic & Physical Performance Comparisons  
 Benchmark Comparables: Alberta Total; Top Profit; Low Cost Groups  
 Enterprise Type: Weaned-Calf

### Economic Performance Indicators:

	\$ / Lb. Weaned		
	Alberta Total	Top R2E	Low Cost
Production Stock Sales	1.433	1.485	1.394
<b>Value of Production</b>	<b>1.567</b>	<b>1.770</b>	<b>1.493</b>
Winter Feed Costs	0.373	0.322	0.311
Bedding Costs	0.022	0.023	0.021
Pasture Costs	0.303	0.304	0.265
Labour Costs	0.145	0.123	0.110
Other Variable Costs	0.185	0.161	0.130
Depreciation & Capital Lease Payments	0.065	0.054	0.052
Other Fixed Costs	0.039	0.021	0.020
<b>Total Cash Costs</b>	<b>0.940</b>	<b>0.839</b>	<b>0.755</b>
<b>Total Production Costs</b>	<b>1.131</b>	<b>1.007</b>	<b>0.910</b>
<b>Contribution Margin</b>	<b>0.540</b>	<b>0.838</b>	<b>0.654</b>
<b>Gross Margin</b>	<b>0.628</b>	<b>0.932</b>	<b>0.738</b>
<b>Return to Investment</b>	<b>0.454</b>	<b>0.773</b>	<b>0.591</b>
<b>Return to Equity &amp; Management</b>	<b>0.436</b>	<b>0.763</b>	<b>0.583</b>
<b>Total Investment (\$ / cow wintered)</b>	<b>1,949</b>	<b>1,830</b>	<b>1,784</b>

### Physical Performance Indicators:

	Alberta Total	Top R2E	Low Cost		Alberta Total	Top R2E	Low Cost
Conception Rate (%)	92.7	92.9	92.6	Cows Wintered	166.2	196.9	204.6
Calving Rate (%)	99.1	98.8	99.1	Cows per Bull	25.5	25.3	25.3
Weaning Rate (%)	97.8	97.4	97.5	Labour Hours per Cow	7.7	6.3	6.0
Calf Crop (%)	88.8	88.7	89.1	AUM's/Cow Wintered	9.3	9.3	9.1
% Calved - 1st 2 Cycles	82.3	83.2	83.6	Feeding Season Days	171.6	166.1	173.0
Lbs. Weaned/Cow Exposed	500.3	478.7	507.7	Tonnes Fed per Cow			
Lbs. Weaned/Cow Wintered	537.9	511.1	548.1	- as-fed	3.8	3.1	3.5
Wean Wt as a % of Cow Wt.	43.8	42.6	45.0	- dry matter			
Weight per Day of Age (lbs.)	2.66	2.59	2.59				

	Alberta Total	Top R2E	Low Cost
<b>G</b> rowth (weaning weight)	565.7	539.8	569.7
<b>O</b> pen Cows (%)	7.9	7.4	7.4
<b>L</b> ength of Calving Period	96.6	85.3	86.6
<b>D</b> eath Loss of Calves (%)	2.5	3.3	3.2

## 2000 Cow/Calf Enterprise Overview

Economic & Financial Performance Comparisons

Benchmark Comparables: Alberta Total; Top Profit; Low Cost Groups

Enterprise Type: Weaned-Calf

### Economic Performance Indicators:

	<i>\$ / Cow Wintered</i>		
	<b>Alberta Total</b>	<b>Top R2E</b>	<b>Low Cost</b>
Production Stock Sales	770.55	759.10	763.91
<b>Value of Production</b>	<b>843.10</b>	<b>904.77</b>	<b>818.16</b>
Winter Feed Costs	200.45	164.32	170.73
Bedding Costs	11.80	11.71	11.68
Pasture Costs	162.94	155.18	145.32
Labour Costs	77.75	63.06	60.45
Other Variable Costs	99.66	82.10	71.40
Depreciation & Capital Lease Payments	35.08	27.61	28.25
Other Fixed Costs	20.79	10.73	10.77
<b>Total Cash Costs</b>	<b>505.41</b>	<b>428.62</b>	<b>413.63</b>
<b>Total Production Costs</b>	<b>608.48</b>	<b>514.72</b>	<b>498.60</b>
<b>Contribution Margin</b>	<b>290.49</b>	<b>428.38</b>	<b>358.59</b>
<b>Gross Margin</b>	<b>337.68</b>	<b>476.14</b>	<b>404.53</b>
<b>Return to Investment</b>	<b>244.39</b>	<b>395.33</b>	<b>324.16</b>
<b>Return to Equity &amp; Management</b>	<b>234.62</b>	<b>390.04</b>	<b>319.56</b>

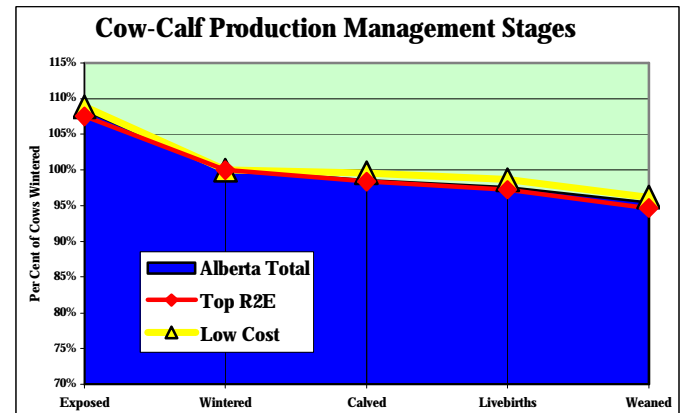
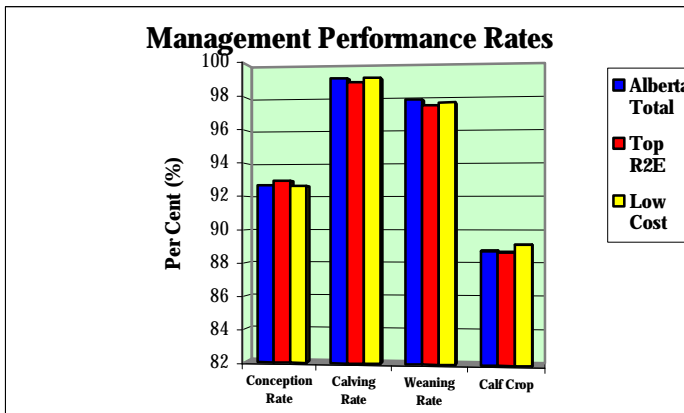
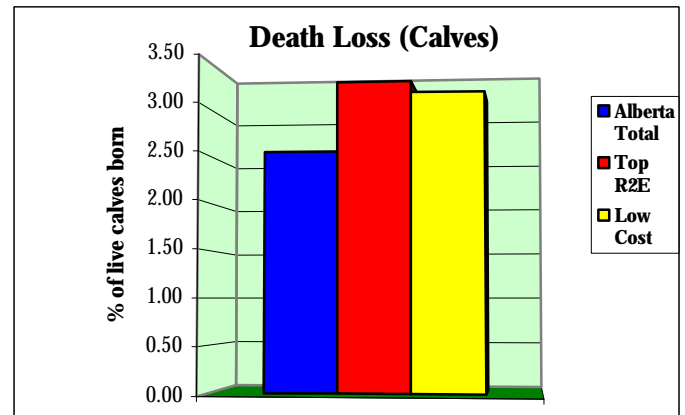
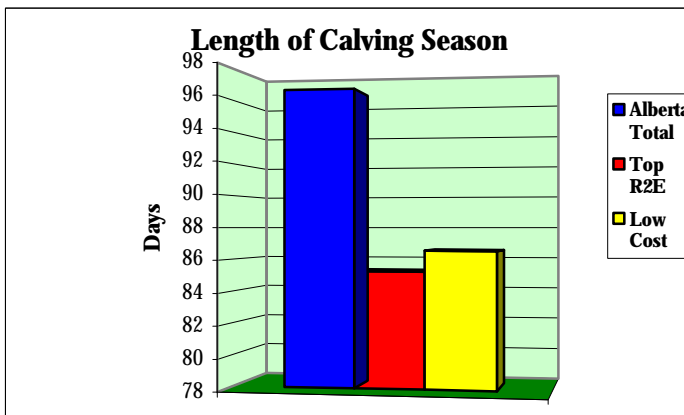
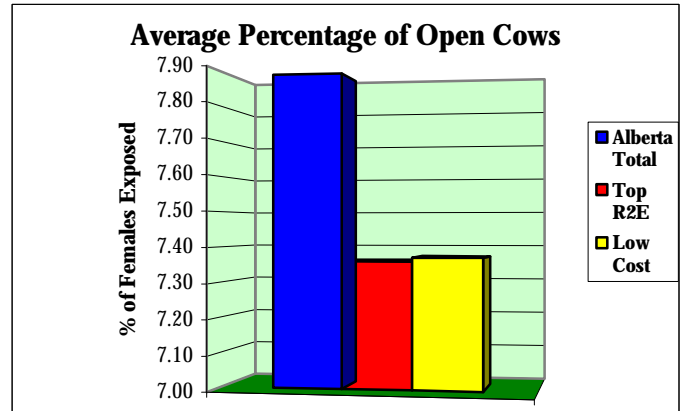
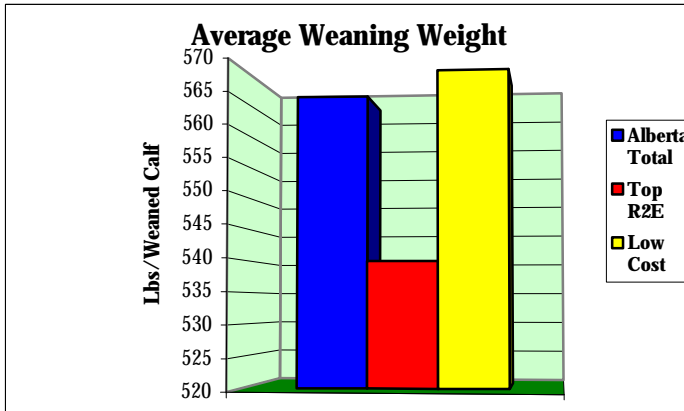
### Farm Financial Performance Indicators:

<b>ROAD to Profitability</b>	<b>Alberta Total</b>	<b>Top R2E</b>	<b>Low Cost</b>	
Risk (Debt to Asset Ratio)	0.12	0.14	0.11	= Total Liabilities / Total Assets
Operating Expense Ratio	0.42	0.36	0.37	= Operating Expenses / Value of Production
Asset Return	0.05	0.08	0.06	= Return on Assets / Total Farm Assets
Debt Payout	2.15	1.70	1.68	= Total Liabilities / Net Farm Income
to Profitability	92,546.22	144,522.68	121,075.03	= Net Farm Income
<b>The "3-C's"</b>				
Current Ratio	2.77	2.20	2.56	= Current Assets / Current Liabilities
Calif. Working Cap. Ratio	0.98	0.86	1.04	= Working Capital / Total Expenses
Capital Turnover Ratio	0.14	0.17	0.15	= Value of Production / Total Farm Assets
Farm Size (Acres)	2,495	3,144	3,219	= Total Acres in crops, forages & grazing (includes all acres owned, rented & leased)

## 2000 Cow/Calf Enterprise Overview

### Physical Performance Comparisons

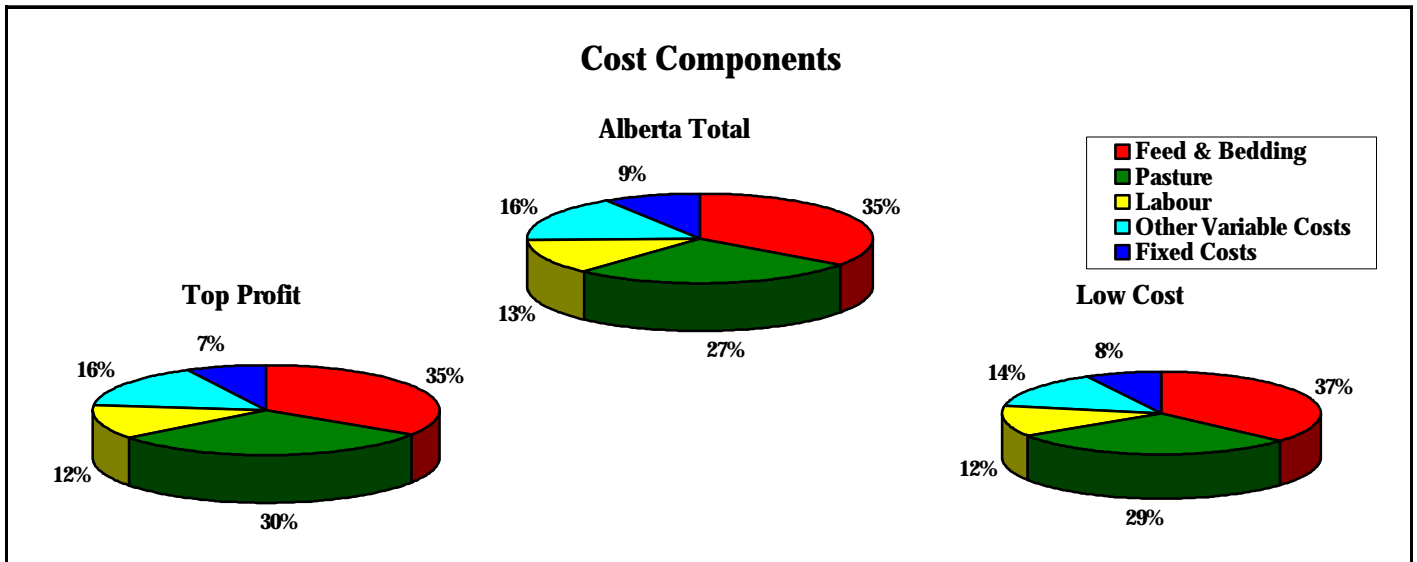
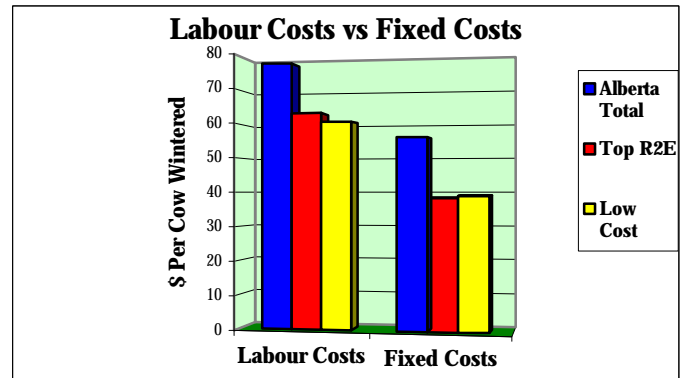
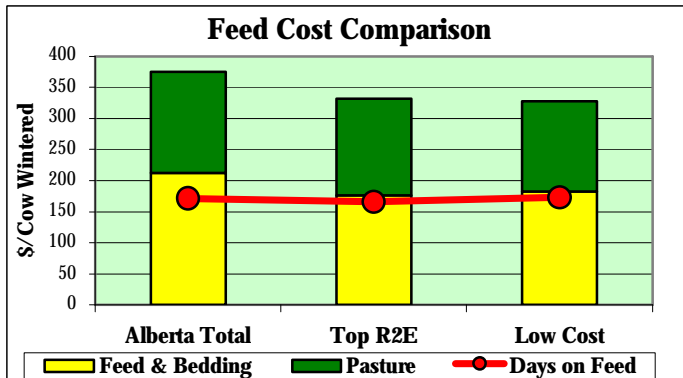
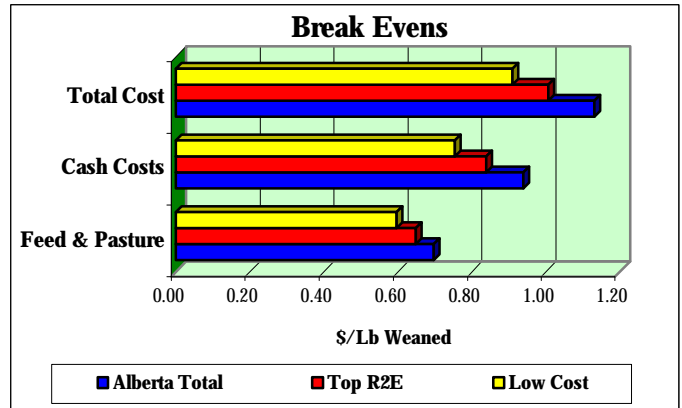
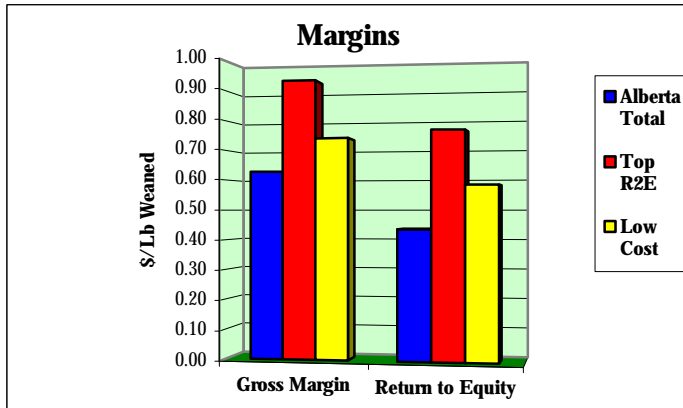
Benchmark Comparables: Alberta Total; Top Profit; Low Cost Groups



## 2000 Cow/Calf Enterprise Overview

### Economic Performance Comparisons

Benchmark Comparables: Alberta Total; Top Profit; Low Cost Groups



**2000 Cow/Calf Enterprise Unit Cost & Returns Detail**  
**Economic Performance Comparisons**

	<b>Alberta Total</b>	<b>Top R2E</b>	<b>Low Cost</b>
	----- \$/Lb Weaned -----		
<b>(A)</b>			
1. Weaned Calves	1.43	1.48	1.39
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	0.18	0.19	0.18
7. Bulls	0.04	0.03	0.02
8. Bred Cows/Bred Heifers	0.08	0.05	0.07
9. Miscellaneous Receipts	0.00	0.00	0.00
10. Government Programs	0.00	0.00	0.00
11. Inventory Adjustment	0.37	0.52	0.36
12. Less: Cattle Purchases	0.54	0.50	0.54
<b>Value of Production</b>	<b>1.57</b>	<b>1.77</b>	<b>1.49</b>
<b>(B)</b>			
1. Winter Feed	0.37	0.32	0.31
2. Bedding	0.02	0.02	0.02
3. Pasture	0.30	0.30	0.27
4. Veterinary & Medicine	0.04	0.03	0.03
5. Breeding Fees/Bull Rental	0.00	0.00	0.00
6. Trucking & Marketing Charges	0.02	0.02	0.02
7. Fuel	0.03	0.02	0.02
8. Repairs - Machine	0.02	0.02	0.02
9. Repairs - Corrals & Buildings	0.02	0.01	0.01
10. Utilities & Miscellaneous Expenses	0.04	0.03	0.02
11. Custom Work & Specialized Labour	0.01	0.00	0.01
12. Operating Interest Paid	0.01	0.02	0.01
13. Paid Labour & Benefits	0.02	0.01	0.01
14. Unpaid Labour	0.13	0.11	0.10
<b>Variable Costs</b>	<b>1.03</b>	<b>0.93</b>	<b>0.84</b>
<b>(C)</b>			
1. Share/Lease Cattle Payments	0.01	0.00	0.00
2. Taxes, Water Rates, Lic. & Insurance	0.01	0.01	0.01
3. Equipment & Building	0.06	0.05	0.05
a) Depreciation			
b) Lease Payments	0.00	0.00	0.00
4. Paid Capital Interest	0.02	0.01	0.01
<b>Total Capital Costs</b>	<b>0.10</b>	<b>0.08</b>	<b>0.07</b>
<b>(D) Cash Costs (B+C-B14-C3)</b>	<b>0.94</b>	<b>0.84</b>	<b>0.75</b>
<b>(E) Total Production Costs (B+C)</b>	<b>1.13</b>	<b>1.01</b>	<b>0.91</b>
<b>(F) Gross Margin (A-D)</b>	<b>0.63</b>	<b>0.93</b>	<b>0.74</b>
<b>Return to Unpaid Labour (A-D+B14)</b>	<b>0.56</b>	<b>0.88</b>	<b>0.69</b>
<b>Return to Investment (A-E+C4)</b>	<b>0.45</b>	<b>0.77</b>	<b>0.59</b>
<b>Return to Equity (A-E)</b>	<b>0.44</b>	<b>0.76</b>	<b>0.58</b>
<b>Total Investment</b>	<b>3.62</b>	<b>3.58</b>	<b>3.25</b>

**2000 Cow/Calf Enterprise Unit Cost & Returns Detail**  
**Economic Performance Comparisons**

	<u>Alberta</u>	<u>Top</u>	<u>Low</u>
	<u>Total</u>	<u>R2E</u>	<u>Cost</u>
	-----	-----	-----
	\$/Cow Wintered		
<b>(A)</b>			
1. Weaned Calves	770.43	758.87	763.91
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	0.12	0.22	0.00
6. Cull Cows/Open Heifers	98.33	99.38	96.91
7. Bulls	20.75	14.03	13.26
8. Bred Cows/Bred Heifers	42.44	24.09	39.53
9. Miscellaneous Receipts	1.45	1.42	0.31
10. Government Programs	0.00	0.00	0.00
11. Inventory Adjustment	197.98	263.57	199.84
12. Less: Cattle Purchases	288.40	256.81	295.59
<b>Value of Production</b>	<b>843.10</b>	<b>904.77</b>	<b>818.16</b>
<b>(B)</b>			
1. Winter Feed	200.45	164.32	170.73
2. Bedding	11.80	11.71	11.68
3. Pasture	162.94	155.18	145.32
4. Veterinary & Medicine	19.02	17.75	16.19
5. Breeding Fees/Bull Rental	0.80	1.00	0.00
6. Trucking & Marketing Charges	12.93	10.98	11.12
7. Fuel	13.47	10.52	11.44
8. Repairs - Machine	11.28	8.13	8.72
9. Repairs - Corrals & Buildings	9.93	4.97	3.67
10. Utilities & Miscellaneous Expenses	21.00	17.70	12.34
11. Custom Work & Specialized Labour	5.43	2.55	3.59
12. Operating Interest Paid	5.81	8.50	4.33
13. Paid Labour & Benefits	8.66	4.57	3.74
14. Unpaid Labour	69.09	58.49	56.72
<b>Variable Costs</b>	<b>552.61</b>	<b>476.38</b>	<b>459.57</b>
<b>(C)</b>			
1. Share/Lease Cattle Payments	3.10	0.13	0.00
2. Taxes, Water Rates, Lic. & Insurance	7.91	5.31	6.17
3. Equipment & Building	33.98	27.61	28.25
a) Depreciation			
b) Lease Payments	1.10	0.00	0.00
4. Paid Capital Interest	9.77	5.28	4.60
<b>Total Capital Costs</b>	<b>55.87</b>	<b>38.34</b>	<b>39.03</b>
<b>(D) Cash Costs</b>	<b>(B+C-B14-C3)</b>	<b>505.41</b>	<b>428.62</b>
<b>(E) Total Production Costs</b>	<b>(B+C)</b>	<b>608.48</b>	<b>498.60</b>
<b>(F) Gross Margin</b>	<b>(A-D)</b>	<b>337.68</b>	<b>476.14</b>
Return to Unpaid Labour	<b>(A-D+B14)</b>	<b>303.71</b>	<b>448.53</b>
Return to Investment	<b>(A-E+C4)</b>	<b>244.39</b>	<b>395.33</b>
Return to Equity	<b>(A-E)</b>	<b>234.62</b>	<b>319.56</b>
<b>Total Investment</b>	<b>1,948.94</b>	<b>1,830.22</b>	<b>1,784.07</b>

## **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 1<sup>st</sup> 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 1<sup>st</sup> to last calf

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