

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 - 2002

Jan. / 04



Foreword

This *AgriProfit\$ Cost & Returns Report* presents the productive, economic & financial performance of cow/calf producers across Alberta for the 2002 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

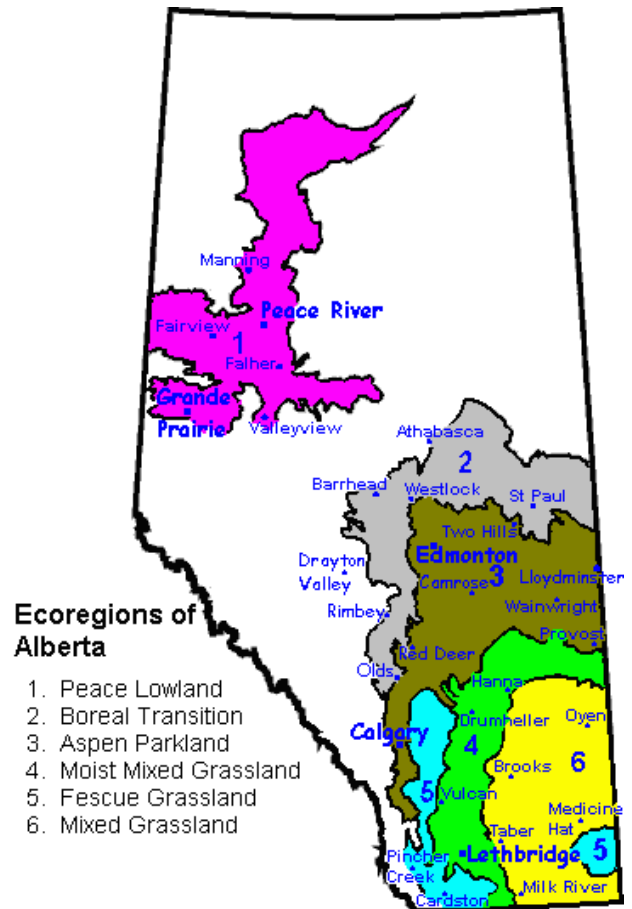
Tel: (780) 422-3771
Fax: (780) 427-5220

* 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.

Dale A. Kaliei
Sr. Economist: Production Economics

Brian Perillat
Production Economist: Livestock & Forages

Alberta Agriculture, Food & Rural Development
January-04



2002 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	1.195	1.209	1.204
Value of Production	1.007	1.186	1.067
Winter Feed Costs	0.618	0.463	0.498
Bedding Costs	0.037	0.036	0.027
Pasture Costs	0.355	0.319	0.287
Labour Costs	0.126	0.103	0.099
Other Variable Costs	0.223	0.212	0.188
Depreciation & Capital Lease Payments	0.067	0.057	0.053
Other Fixed Costs	0.048	0.029	0.037
Total Cash Costs	1.323	1.082	1.064
Total Production Costs	1.475	1.218	1.190
Contribution Margin	(0.352)	0.054	(0.033)
Gross Margin	(0.316)	0.104	0.004
Return to Investment	(0.442)	(0.020)	(0.101)
Return to Equity & Management	(0.468)	(0.032)	(0.123)
Total Investment (\$ / cow wintered)	1,695	1,777	1,637

Physical Performance Indicators:

	Alberta Total	Top R2E	Low Cost		Alberta Total	Top R2E	Low Cost
Conception Rate (%)	90.6	91.5	91.8	Cows Wintered	238.7	250.6	287.1
Calving Rate (%)	97.8	98.0	98.3	Cows per Bull	20.7	23.8	24.3
Weaning Rate (%)	96.7	98.2	97.1	Labour Hours per Cow	6.2	5.4	5.2
Calf Crop (%)	85.5	87.3	86.9	AUM's/Cow Wintered	8.4	9.1	8.0
% Calved - 1st 2 Cycles	85.7	87.9	88.2	Feeding Season Days	181.5	159.4	172.8
Lbs. Weaned/Cow Exposed	463.5	484.7	489.5	Tonnes Fed per Cow			
Lbs. Weaned/Cow Wintered	505.5	523.7	529.1	- as-fed	4.7	4.0	4.1
Wean Wt as a % of Cow Wt.	43.4	46.3	46.6	- dry matter			
Weight per Day of Age (lbs.)	2.65	2.62	2.78				

	Alberta Total	Top R2E	Low Cost
G rowth (weaning weight)	542.2	555.1	563.3
O pen Cows (%)	8.6	8.0	8.3
L ength of Calving Period	107.8	98.9	104.9
D eath Loss of Calves (%)	3.3	2.8	3.4

2002 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>		
	Alberta Total	Top R2E	Low Cost
Production Stock Sales	604.31	633.00	636.98
Value of Production	509.09	621.21	564.66
Winter Feed Costs	312.37	242.33	263.77
Bedding Costs	18.46	18.60	14.30
Pasture Costs	179.55	167.15	151.99
Labour Costs	63.93	54.09	52.49
Other Variable Costs	112.65	110.80	99.62
Depreciation & Capital Lease Payments	34.08	29.75	28.04
Other Fixed Costs	24.48	14.99	19.47
Total Cash Costs	668.74	566.49	562.75
Total Production Costs	745.52	637.71	629.67
Contribution Margin	(177.88)	28.24	(17.50)
Gross Margin	(159.65)	54.72	1.92
Return to Investment	(223.61)	(10.44)	(53.60)
Return to Equity & Management	(236.43)	(16.50)	(65.01)

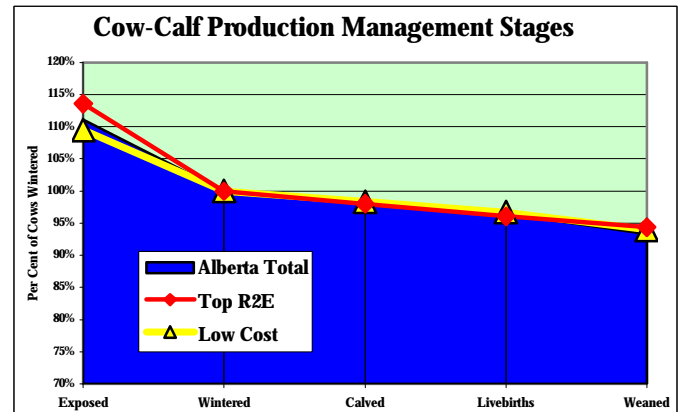
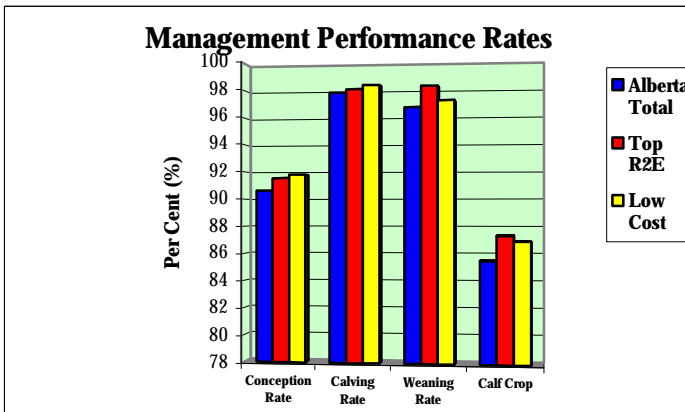
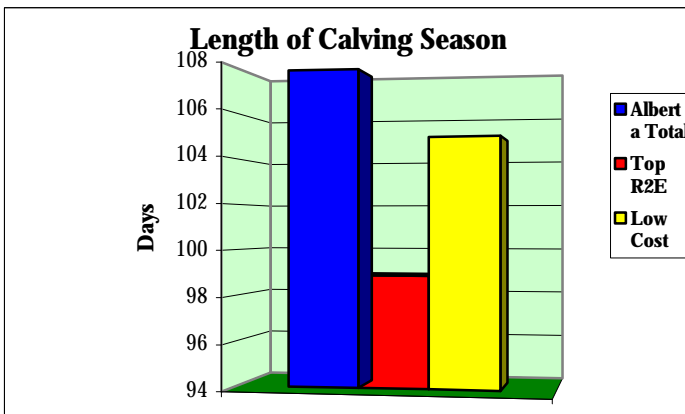
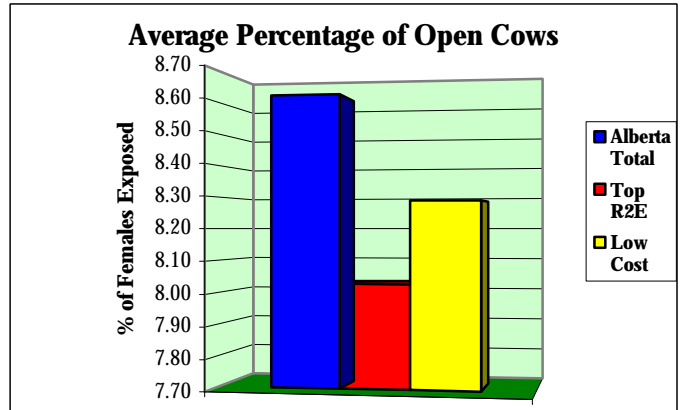
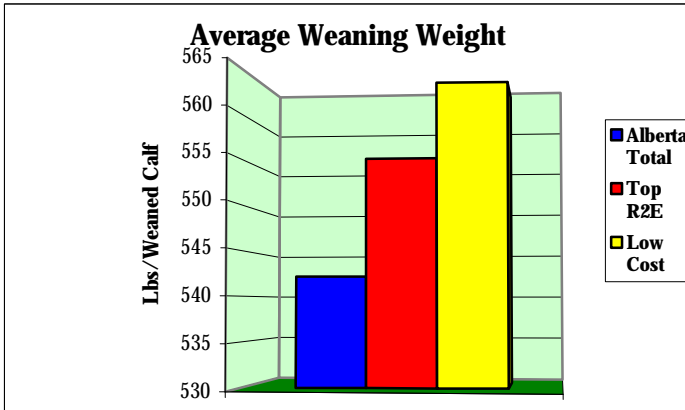
Financial Performance Indicators:

ROAD to Profitability	Alberta Total	Top R2E	Low Cost	
Risk (Debt to Asset Ratio)	0.18	0.11	0.13	= Total Liabilites / Total Assets
Operating Expense Ratio	0.73	0.56	0.59	= Operating Expenses / Value of Production
Asset Return	0.01	0.04	0.04	= Return on Assets / Total Farm Assets
Debt Payout	11.76	2.45	3.23	= Total Liabilities / Net Farm Income
to Profitability	40,954.83	122,889.36	110,456.95	= Net Farm Income
The "3-C's"				
Current Ratio	1.86	3.55	2.86	= Current Assets / Current Liabilities
Calif. Working Cap. Ratio	0.56	1.00	0.90	= Working Capital / Total Expenses
Capital Turnover Rato	0.14	0.14	0.15	= Value of Production / Total Farm Assets
Farm Size (Acres)	5,422	7,445	7,377	= Total Acres in crops, forages & grazing (includes all acres owned, rented & leased)

2002 Cow-Calf Enterprise Overview

Physical Performance Comparisons

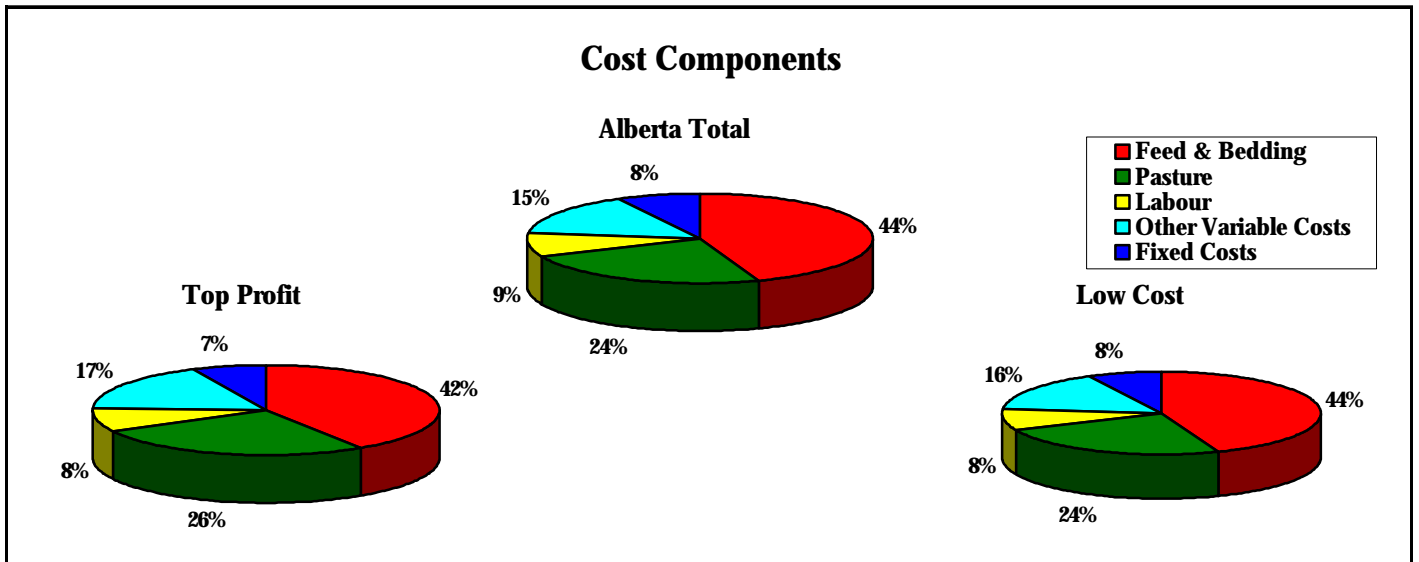
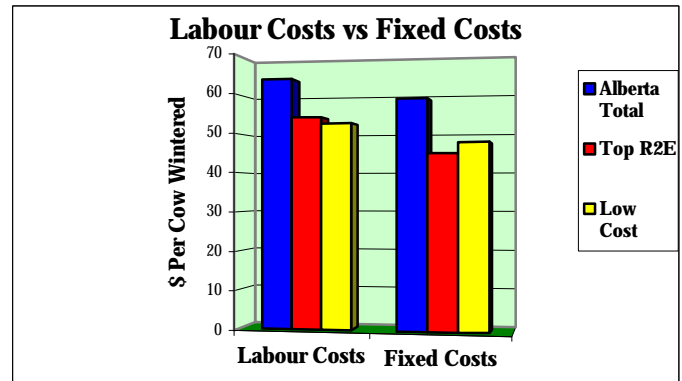
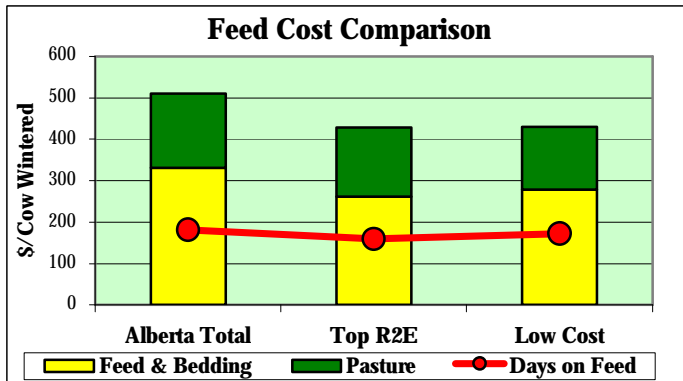
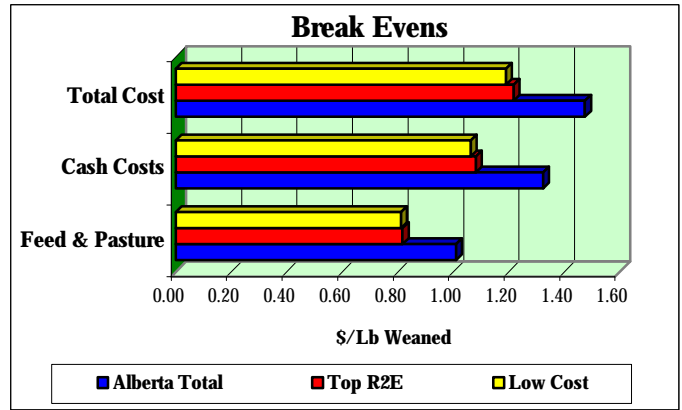
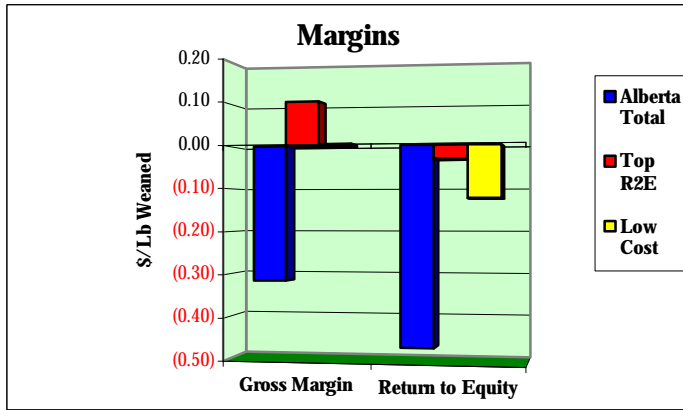
Benchmark Comparables: Alberta Total; Top Profit; Low Cost Groups



2002 Cow-Calf Enterprise Overview

Economic Performance Comparisons

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



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

	Alberta	Top	Low
	Total	R2E	Cost
	----- \$/Lb Weaned -----		
(A)			
1. Weaned Calves	1.19	1.21	1.20
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	0.21	0.18	0.20
7. Bulls	0.03	0.03	0.03
8. Bred Cows/Bred Heifers	0.08	0.05	0.05
9. Miscellaneous Receipts	0.01	0.00	0.00
10. Government Programs	0.00	0.00	0.00
11. Inventory Adjustment	(0.09)	0.21	(0.05)
12. Less: Cattle Purchases	0.42	0.50	0.36
Value of Production	1.01	1.19	1.07
(B)			
1. Winter Feed	0.62	0.46	0.50
2. Bedding	0.04	0.04	0.03
3. Pasture	0.36	0.32	0.29
4. Veterinary & Medicine	0.04	0.03	0.03
5. Breeding Fees/Bull Rental	0.00	0.00	0.00
6. Trucking & Marketing Charges	0.03	0.02	0.02
7. Fuel	0.03	0.03	0.03
8. Repairs - Machine	0.03	0.03	0.02
9. Repairs - Corrals & Buildings	0.02	0.01	0.01
10. Utilities & Miscellaneous Expenses	0.04	0.04	0.03
11. Custom Work & Specialized Labour	0.03	0.04	0.04
12. Operating Interest Paid	0.01	0.00	0.00
13. Paid Labour & Benefits	0.03	0.02	0.02
14. Unpaid Labour	0.09	0.08	0.08
Variable Costs	1.36	1.13	1.10
(C)			
1. Share/Lease Cattle Payments	0.01	0.00	0.00
2. Taxes, Water Rates, Lic. & Insurance	0.01	0.02	0.01
3. Equipment & Building	0.06	0.05	0.05
a) Depreciation			
b) Lease Payments	0.01	0.00	0.00
4. Paid Capital Interest	0.03	0.01	0.02
Total Capital Costs	0.12	0.09	0.09
(D) Cash Costs	(B+C-B14-C3)	1.32	1.08
(E) Total Production Costs	(B+C)	1.47	1.22
(F) Gross Margin	(A-D)	(0.32)	0.10
Return to Unpaid Labour	(A-D+B14)	(0.38)	(0.05)
Return to Investment	(A-E+C4)	(0.44)	(0.10)
Return to Equity	(A-E)	(0.47)	(0.12)
Total Investment		3.35	3.39

Cow-Calf Enterprise Unit Cost & Returns Detail

Economic Performance Comparisons

	Alberta <u>Total</u>	Top <u>R2E</u>	Low <u>Cost</u>
	----- \$/Cow Wintered -----		
(A)			
1. Weaned Calves	603.48	632.87	636.65
2. Feeder Calves	0.02	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	0.81	0.13	0.33
6. Cull Cows/Open Heifers	103.84	94.73	104.39
7. Bulls	16.11	15.35	14.53
8. Bred Cows/Bred Heifers	41.26	26.18	25.39
9. Miscellaneous Receipts	2.68	1.36	1.15
10. Government Programs	0.00	0.00	0.00
11. Inventory Adjustment	(45.65)	110.13	(24.95)
12. Less: Cattle Purchases	213.46	259.54	192.83
Value of Production	509.09	621.21	564.66
(B)			
1. Winter Feed	312.37	242.33	263.77
2. Bedding	18.46	18.60	14.30
3. Pasture	179.55	167.15	151.99
4. Veterinary & Medicine	20.80	16.82	17.38
5. Breeding Fees/Bull Rental	0.21	0.04	0.14
6. Trucking & Marketing Charges	12.73	11.14	9.33
7. Fuel	16.21	17.61	15.57
8. Repairs - Machine	15.26	14.26	11.77
9. Repairs - Corrals & Buildings	7.76	5.16	7.41
10. Utilities & Miscellaneous Expenses	20.16	20.08	15.80
11. Custom Work & Specialized Labour	14.81	23.38	19.63
12. Operating Interest Paid	4.72	2.31	2.58
13. Paid Labour & Benefits	17.46	10.54	11.79
14. Unpaid Labour	46.47	43.55	40.70
Variable Costs	686.97	592.97	582.16
(C)			
1. Share/Lease Cattle Payments	5.01	1.03	1.15
2. Taxes, Water Rates, Lic. & Insurance	6.64	7.90	6.90
3. Equipment & Building	30.31	27.67	26.22
a) Depreciation			
b) Lease Payments	3.77	2.09	1.82
4. Paid Capital Interest	12.82	6.05	11.41
Total Capital Costs	58.55	44.74	47.51
(D) Cash Costs	(B+C-B14-C3)	668.74	566.49
(E) Total Production Costs	(B+C)	745.52	637.71
(F) Gross Margin	(A-D)	(159.65)	54.72
Return to Unpaid Labour	(A-D+B14)	(189.96)	27.05
Return to Investment	(A-E+C4)	(223.61)	(10.44)
Return to Equity	(A-E)	(236.43)	(16.50)
Total Investment	1,694.93	1,777.17	1,636.54

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