

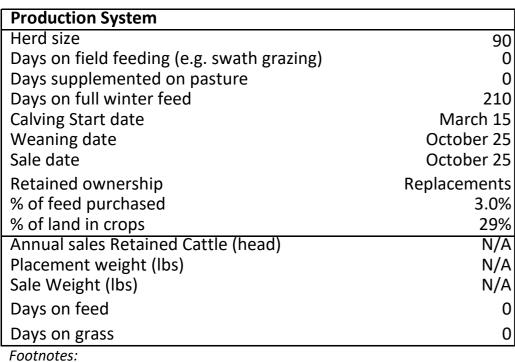
Farm Characteristics	CA-BC-2
Form Description	A cow-calf operation producing predominantly homegrown feed located in the ranchlands of central B.C. characterized by plateaus,
Farm Description	mountains and grasslands suited to cattle production.
Winter Feeding Ration	210 days of winter feeding on homegrown hay (40 lb), grain screening pellets (4.5 lb) for 30 days at calving, with mineral (100 g) and
(lbs/cow/day as fed)	salt (50 g) bales shredded on pasture.
Retained Ownership/Replacement Ration	210 days of winter feeding on homegrown hay (12.6 lb), grain screening pellets (5.5 lb), with mineral (60 g) and salt (34 g) confined.
(lb/head/day as fed)	

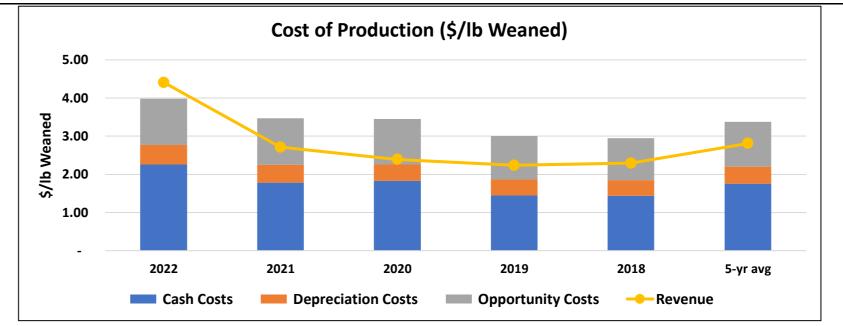
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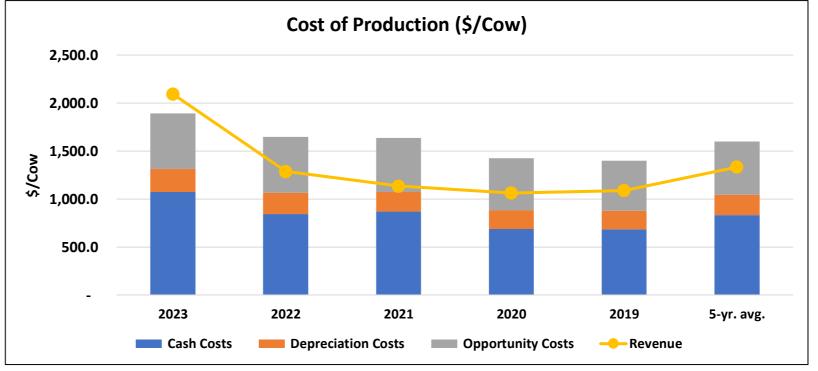
This benchmark is based on 5 farms of data; outliers were excluded as required. Canfax Research Services (CRS) tries to provide quality information, but we make no claims, promises, or guarantees about the accuracy, completeness, or adequacy of the information. CRS does not guarantee and accepts no legal liability arising from or connected to, the accuracy, reliability, or completeness of any material contained in our publications. Reproduction and/or electronic transmission of this publication, in whole or in part, is strictly forbidden without written consent from CRS.

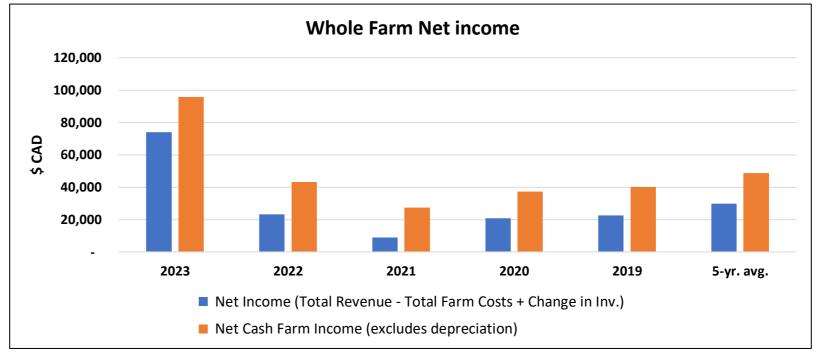
Environment	
Average Annual Temperature	0.5 to 7.5 °C
Average Annual Precipitation (mm)	650mm
Ecoregion	Central Interior
Stocking Rate (Animal Unit days per acre)	22
Fertilize Hay (yes/no)	No
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	1.4
Grassland Acres (owned+rented)	859
Crop Acres (includes hay) (owned+rented)	348
Bush and other acres	761

Physical Performance Indicators	
	Angus, Hereford,
	Simmental,
Breed	Limousin
Cow:Bull Ratio	22:1
Bull Culling Rate (%)	22%
Mature Cow Weight (lb)	1,340
Heifer Retention for a steady herd (%)	10%
Cow Death Loss (%)	0.9%
Cow Culling Rate (%)	9.4%
Calves alive after 24hr/100 Cows exposed	96
Calf Death Loss (%) 24 hr to weaning	3%
Calves weaned per 100 cows exposed	93
Total Liveweight Sold per Cow (lb)	641
Weaning Weight (lb)	584
205 day adjusted Weaning Weight (lb)	594
Average Daily Gain pre-weaning (lb)	2.48
Weaning Weight as % of Cow Weight	44%









Cost of Production: Cash Cost + Depreciation + Opportunity Costs

Cash Costs = Cash cost for purchased feed, fertiliser, seeds, fuel, maintenance, land rents, animal purchases, interest on liabilities, wages paid, veterinary costs plus medicine, water, insurance, accounting, etc. (excl. Tax)

Depreciation = Linear depreciation on machinery and buildings, calculated on replacement values

Opportunity Costs = Calculated cost for using own production factors like labour (family working hours * wage for qualified local labour, land (own land * regional land rents) and capital (non-land equity * longterm government bonds interest rate)

Whole Farm Profitability = Market returns (+ coupled payments) (+ decoupled payments) – whole-farm costs +/- changes in inventory +/- capital gains/losses.

Whole Farm Net Income = Whole farm profitability + depreciation + changes in inventory + capital gains/losses. Known as: 'Net farm income' (Agri Profits, 2018)

Revenue = sales of calves, cull cows, breeding stock, government payments and other revenue applicable to the specific enterprise



Whole Farm Overview Page

Overview Operation Maturity	Mature						
Herd Size 90 Paid Labour (livestock only) (hours) -		Beef Animals	Sold from Retaine	ed Ownership	N/A		
Unpaid Labour (livestock only) (hours) Average wages - paid and unpaid (\$/hr)	1,256 20.22						
Revenue		2023	2022	2021	2020	2019	5-yr. avg
Market Revenue	5-yr avg	171,070	115,770	93,137	95,571	98,038	114,717
Cow-Calf Cash Crops	92% 0%	171,070 -	115,770 -	93,137	95,571 -	98,038 -	114,717 -
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	4%	17,280	-	9,000	-	-	5,256
Other Farm Revenue +	4%	4,534	4,506	4,501	4,503	4,506	4,510
Total Revenue	100%	192,884	120,276	106,638	100,075	102,543	124,483
Change in Inventory Expenses		2023	2022	(187) 2021	1,151 2020	(187) 2019	155 5-yr. avg
•							
Depreciation Machinery		21,771 8,629	19,943 7,502	18,376 6,742	17,709 6,510	17,302 6,293	19,020 7,135
Buildings		13,142	12,441	11,634	11,199	11,009	11,885
Quota econ. Accounting			-	-		-	-
Overhead costs		48,317	48,298	40,830	37,648	38,349	42,688
Land improvement		6,326	5,974	5,567	5,354	5,346	5,713
Machinery Maintenance		13,477	12,634	11,969	11,774	11,570	12,285
Buildings Maintenance		1,645	1,564	1,435	1,350	1,369	1,473
Contract labour		2,413	2,492	2,366	2,282	2,214	2,353
Diesel, Gasoline, Natural Gas		11,815	14,494	10,093	8,283	9,455	10,828
Electricity		4,870	3,369	2,044	1,503	1,471	2,651
Water		-	-	-	-	-	-
Farm insurance		4,204	4,204	3,991	3,850	3,735	3,997
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		944	944	897	865	839	898
Advisor costs		705	705	670	646	627	671
Accountant & legal fees Phone & utilities		246 1 171	246 1,171	233 1,097	225 1,061	218 1,053	234
Other overhead costs		1,171 501	501	469	454	451	1,111 475
Wages, rent and interest payments Paid Labour		<i>5,541</i> -	<i>5,781</i> -	6,186 -	<i>6,235</i>	<i>5,728</i> -	5,894 -
Total land rents		2,244	2,140	2,011	1,765	1,665	1,965
Total Interest on debt		3,298	3,641	4,175	4,469	4,063	3,929
Cow-Calf		41,316	21,061	30,416	17,216 1,886	16,536	25,309
Animal purchases Purchased feed		1,886 29,779	1,886 9,660	1,886 20,403	8,111	1,886 7,687	1,886 15,128
Other fixed and var. costs *		9,650	9,514	8,126	7,218	6,962	8,294
				0,120	7,210	0,302	
Retained Ownership Animal purchases		- -	-	-	- -	- -	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		1,989	1,895	1,810	1,736	1,832	1,852
Seed		1,755	1,661	1,592	1,524	1,622	1,631
Fertilizer		-	-	-	-	-	-
Herbicide Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour Fuel costs (crop & forage)		-	-	-	-	-	-
Fuel costs (crop & forage) Other crop and forage		233	233	- 219	- 212	210	- 221
Total Farm Costs (excludes unpaid labour)		118,933	96,977	97,618	80,543	79,747	94,764
Cash Costs (Total Farm Costs - Depreciation)		97,163	77,034	79,242	62,834	62,445	75,744
Depreciation & Opportunity Costs (including	unpaid labour)	47,160	45,332	43,765	43,098	42,691	44,409
Total Economic Costs (cash, depr, opportunit	•	144,322	122,365	123,007	105,932	105,136	120,152
Profits		2023	2022	2021	2020	2019	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs	+ Change in Inv 1	73,951	23,300	8,832	20,682	22,609	29,875
Net Cash Farm Income (excludes depreciation)		95,687	43,236	27,394	37,238	40,093	48,730

⁺ Other Farm Revenue includes: Other enterprises, capital gains and losses as well as calculated interest on savings based on the models previous year profits.





^{*}Other fixed and var. costs includes: veterinary, medicine, maintenance and spare parts, and other/miscellaneous

Cow-Calf Enterprise (\$/Cow)	2023	2022	2021	2020	2019	5 yr. avg.
No. of Cows*	90	90	90	90	90	90
Average male and female calf price (\$/head)	2,055	1,397	1,131	1,151	1,172	1,381
REVENUE						
Cow Calf	2,093	1,286	1,135	1,062	1,089	1,333
Cull animals and slaughter receipts	216	138	104	117	127	141
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,685	1,148	930	944	962	1,134
Government payments	192.0	-	100.0	-	-	58.4
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	2,093	1,286	1,135	1,062	1,089	1,333
VARIABLE COSTS						
Animal purchases	21.0	21.0	21.0	21.0	21.0	21
Feed (purchase feed, fertiliser, seed, pesticides)	423.3	194.8	308.7	168.9	165.2	252
Machinery (maintenance, depreciation, contractor)	272.4	251.4	234.2	228.5	223.1	242
Fuel, energy, lubricants, water	194.7	203.5	136.0	109.2	121.3	153
Vet & medicine	29.0	27.0	24.3	22.0	18.9	24
Other inputs cow calf enterprise	90.3	92.0	82.6	76.1	76.1	83
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	282.1	291.4	276.6	266.9	258.9	275
Total Variable Costs	1,312.7	1,081.0	1,083.4	892.6	884.4	1,051
CAPITAL COSTS						
Insurance, taxes	58.3	57.7	54.4	52.6	51.0	55
Buildings (maintenance, depreciation)	164.3	155.6	145.2	139.4	137.5	148
Land Cost	-	-	-	-	-	
Rented Land	24.9	23.8	22.3	19.6	18.5	22
Own Land	242.9	236.9	229.6	215.5	209.7	227
Capital Costs	-	-	-	-	-	
Liabilities	35.8	38.9	44.4	47.5	43.2	42
Own capital	51.5	53.1	55.8	57.8	55.4	55
Total Capital Costs	577.7	566.1	551.8	532.4	515.4	549
COSTS						
Cash Costs	1,072.0	844.2	869.0	688.0	683.5	831
Depreciation Costs	241.9	221.6	204.2	196.8	192.2	211
Opportunity Costs	576.5	581.4	562.0	540.2	524.1	557
Total Production Costs	1,890.4	1,647.1	1,635.1	1,425.0	1,399.8	1,600
Profits	2023	2022	2021	2020	2019	5-yr. avg.
Short-term profit (cash costs)	1,020.7	442.2	265.9	373.9	405.8	502
Medium-term profit (cash + depreciation)	778.9	220.6	61.7	177.1	213.5	290
Long-term profit (cash + depreciation + opportunity) *Model Maintains a stable herd size	202.4	(360.8)	(500.3)	(363.1)	(310.5)	(266)

Costs and revenue are reported for a calendar (e.g. January to December). It reflects revenue and expenses that a producer experiences over that period. Producers who want a cash flow analysis typically use a calendar or agricultural year. This method is often preferred by lenders when getting evaluated for a line of credit or a loan. The model maintains a stable herd, retention rates were adjusted to ensure that.

Cash Costs

Cash costs are the outlays over the course of the year, including machine repairs, paid labour, costs of feed production, and purchased feed. CDN COP Network bases cash costs on actual costs of production. Agri Profit\$ uses the market value for some cash costs, including feed.

The cost of producing the feed on-farm and the purchased feed costs as used in that year to reflect the experience and situation of producers. Production inputs, land and any purchased feeds utilized that year are included. Rations for each type of animal and inventories are used to calculate total feed requirements. Any shortfall in production are assumed to be purchased at market value. Feed rations and yields are provided "as fed" to balance the model. Below are the included costs for feed production:

Feed: Calculated as feed cost (purchase feed + fertilizer, seed and pesticides for own feed production) + machinery cost (machinery maintenance + depreciation + contractor) + fuel, energy, lubricants and water + land cost (land rents paid + opportunity cost own land)

Land: separated into owned and rented land, includes both crop and pastureland. Land costs = Rents paid + calculated land rents for own land (opportunity cost). By using the cost of land, the advantage that mature operations have is clearly shown as their cost structure is lower when land has been fully paid off.

Allocation

Generic allocation uses percent revenues from each commodity to cover overheads and utilizes accounting data for the overhead costs. This takes the approach that overheads and fixed costs will be covered by something grown on the farm and recognizes that there are commodity price cycles where grains and livestock tend to be opposite. It is not so much concerned about each enterprise paying their way as that all overheads are covered by the mix of commodities grown. It should be recognized that as commodity prices fluctuate and revenues to each enterprise fluctuate, the shifting shares will change the cost structure for each enterprise from year to year.

Depreciation

Depreciation on buildings and machinery is a non-cash cost that reveals the ability of the farm to continue operating if an asset needs replacement.

Differences in depreciation costs between AgriProfit\$ and the CDN COP Network primarily comes from the use of specific (AgriProfit\$) versus generic (CDN COP Network) allocation. Where generic allocation results in machinery depreciation used for feed production to show up in the cow-calf enterprise as that is where revenue is generated. In contrast, specific allocation removes that cost and since feed is treated at market value, machinery depreciation for feed production is treated as a cash cost. This results in the CDN COP Network typically having lower cash costs and higher depreciation costs than what is reported in AgriProfit\$.

Opportunity Costs

Opportunity costs are the non-cash costs that reveal the opportunity of using different resources. These costs can include Unpaid labour, renting out land, the opportunity of selling or buying feed production, and return to own capital.

Land: The Opportunity costs of land are the rents for new contracts if the farm rents out owned land. It reflects the future cost of renting land. If the producers' profits of utilizing the land outweigh the profits of renting the land, utilizing owned land for production should be preferred and vice-versa.

Labour: The opportunity costs of labour are the calculated wage for family labour, either off-farm salary or farm manager salary. It is important to note that the opportunity cost of labour reflects the income you can receive for the same type of labour.

Capital: The opportunity cost of capital is the interest rate for long-term government bonds multiplied by the equity without land (values of machines, buildings, livestock, circulating capital, less total loans). If the producers' return on capital through farm and ranch production of an enterprise is greater than investing elsewhere then, continuous production should be preferred.

Unit Reported

Often cow-calf COP is expressed as dollars per cow wintered (\$/cow wintered) which adjusts the calf price per head for the number of calves sold per 100 cows. When evaluating overall cost structure to identify areas for improvement, or comparing to a benchmark, this is sufficient.





Cow-Calf Enterprise (\$/lb Weaned)	2023	2022	2021	2020	2019	5 yr. avg.
Pounds Weaned	42,696	42,696	42,696	42,696	42,696	42,696
Average male and female weaning weight (lbs)	584	584	584	584	584	
Average male and female calf price at weaning (\$/lb)	3.52	2.39	1.94	1.97	2.01	2.36
REVENUE						
Cow Calf Operation	4.41	2.71	2.39	2.24	2.30	2.81
Cull animals and slaughter receipts	0.46	0.29	0.22	0.25	0.27	0.30
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	3.55	2.42	1.96	1.99	2.03	2.39
Government payments	0.40	-	0.21	-	-	0.12
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	4.41	2.71	2.39	2.24	2.30	2.81
VARIABLE COSTS						
Animal purchases	0.04	0.04	0.04	0.04	0.04	0.04
Feed (purchase feed, fertiliser, seed, pesticides)	0.89	0.41	0.65	0.36	0.35	0.53
Machinery (maintenance, depreciation, contractor)	0.57	0.53	0.49	0.48	0.47	0.51
Fuel, energy, lubricants, water	0.41	0.43	0.29	0.23	0.26	0.32
Vet & medicine	0.06	0.06	0.05	0.05	0.04	0.05
Other inputs cow calf enterprise	0.19	0.19	0.17	0.16	0.16	0.18
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	0.59	0.61	0.58	0.56	0.55	0.58
Total Variable Costs	2.8	2.3	2.3	1.9	1.9	2.2
CAPITAL COSTS						
Insurance, taxes	0.12	0.12	0.11	0.11	0.11	0.12
Buildings (maintenance, depreciation)	0.35	0.33	0.31	0.29	0.29	0.31
Land Cost						
Rented Land	0.05	0.05	0.05	0.04	0.04	0.05
Owned Land	0.51	0.50	0.48	0.45	0.44	0.48
Capital Costs						
Liabilities	0.08	0.08	0.09	0.10	0.09	0.09
Own capital	0.11	0.11	0.12	0.12	0.12	0.12
Total Capital Costs	1.2	1.2	1.2	1.1	1.1	1.2
COSTS						
Cash Costs	2.26	1.78	1.83	1.45	1.44	1.75
Depreciation Costs	0.51	0.47	0.43	0.41	0.41	0.45
Opportunity Costs	1.22	1.23	1.18	1.14	1.10	1.17
Total Production Costs	3.98	3.47	3.45	3.00	2.95	3.37
Profits	2023	2022	2021	2020	2019	5-yr. avg.
Short-term profit (cash costs)	2.15	0.93	0.56	0.79	0.86	1.06
Medium-term profit (cash + depreciation)	1.64	0.46	0.13	0.37	0.45	0.61
Long-term profit (cash + depreciation + opportunity)	0.43	(0.76)	(1.05)	(0.77)	(0.65)	(0.56)

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However, a per unit cost provides producers with their break-even cost, allowing them to compare with posted market prices for their calves' average weight category. This break-even price will depend on the percentage of calves weaned that year from the cow herd. The higher percent weaned, the lower per pound the break-even price will be.



