



Farm Characteristics	CA-BC-1
Farm Description	A cow-calf operation producing homegrown hay on irrigation land, located in the rangelands and fruit producing region of the highly populated Okanagan.
Winter Feeding Ration (lbs/cow/day as fed)	150 days on homegrown hay/haylage (25 lb dry matter), protein tub (1 lb) for 125 days throughout winter, and 70 g trace mineral and salt
Retained Ownership/Replacement Ration (lb/head/day as fed)	180 days of free choice good quality hay (17.5 lb) and alfalfa pellets (2.3 lb) with mineral and salt year round
Disclaimer:	This benchmark is based on 3 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	6°C
Average Annual Precipitation (mm)	250-300 mm
Ecoregion	Southern Interior
Stocking Rate (Animal Unit days per acre)	22
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	3.0
Grassland Acres (owned+rented)	757
Crop Acres (includes hay) (owned+rented)	74
Bush and other acres	0

Physical Performance Indicators	
Breed	Angus
Cow:Bull Ratio	25:1
Bull Culling Rate (%)	18%
Mature Cow Weight (lb)	1,200
Heifer Retention for a steady herd (%)	14%
Cow Death Loss (%)	1.6%
Cow Culling Rate (%)	12.5%
Calves alive after 24hr/100 Cows exposed	88
Calf Death Loss (%) 24 hr to weaning	6%
Calves weaned per 100 cows exposed	82
Total Liveweight Sold per Cow (lb)	569
Weaning Weight (lb)	594
205 day adjusted Weaning Weight (lb)	542
Average Daily Gain pre-weaning (lb)	2.23
Weaning Weight as % of Cow Weight	49%

Production System	
Herd size	65
Days on field feeding (e.g. swath grazing)	0
Days supplemented on pasture	25
Days on full winter feed	150
Calving Start date	February 20
Weaning date	October 25
Sale date	October 25
Retained ownership	Replacements
% of feed purchased	4.0%
% of land in crops	9%
Annual sales Retained Cattle (head)	N/A
Placement weight (lbs)	N/A
Sale Weight (lbs)	N/A
Days on feed	0
Days on grass	0

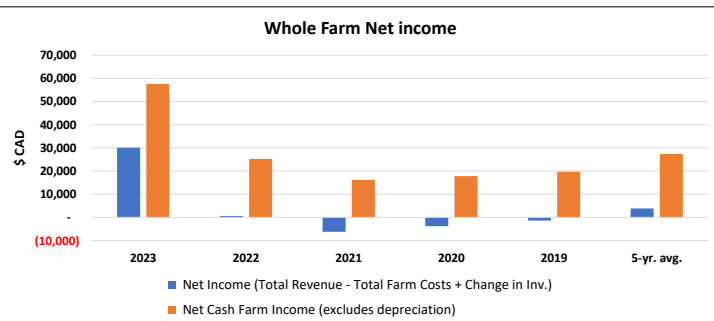
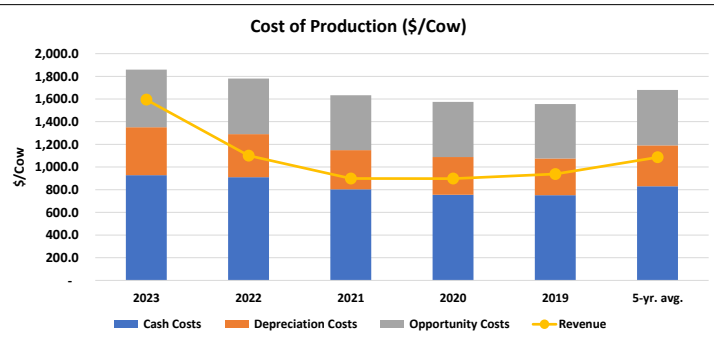
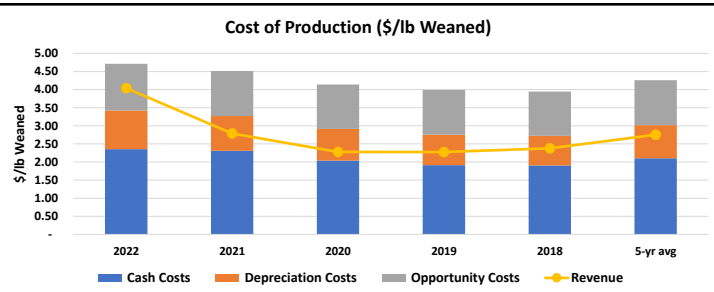
Footnotes:

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 * long-term government bonds interest rate)



Whole Farm Overview Page

Overview							
Operation Maturity	Mature						
Herd Size	65			Beef Animals Sold from Retained Ownership		N/A	
Paid Labour (livestock only) (hours)	-						
Unpaid Labour (livestock only) (hours)	876						
Average wages - paid and unpaid (\$/hr)	21.14						
Revenue		2023	2022	2021	2020	2019	5-yr. avg.
Market Revenue	5-yr avg	125,133	93,654	75,819	73,070	74,609	88,457
Cow-Calf	80%	103,605	71,522	58,420	58,350	60,960	70,571
Cash Crops	20%	21,528	22,133	17,400	14,721	13,650	17,886
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue †	0%	20	3	0	1	1	5
Total Revenue	100%	125,154	93,657	75,820	73,071	74,610	88,462
Change in Inventory		-	-	-	-	-	-
Expenses		2023	2022	2021	2020	2019	5-yr. avg.
Depreciation		27,489	24,611	22,437	21,640	21,047	23,445
Machinery		18,269	15,883	14,275	13,783	13,324	15,107
Buildings		9,220	8,728	8,161	7,857	7,723	8,338
Quota econ. Accounting		-	-	-	-	-	-
Overhead costs		34,972	34,691	30,232	28,332	28,589	31,363
Land improvement		1,343	1,269	1,182	1,137	1,135	1,213
Machinery Maintenance		12,053	11,299	10,704	10,530	10,348	10,987
Buildings Maintenance		1,828	1,738	1,594	1,500	1,521	1,636
Contract labour		-	-	-	-	-	-
Diesel, Gasoline, Natural Gas		6,336	7,773	5,412	4,442	5,071	5,807
Electricity		2,592	1,793	1,088	800	783	1,411
Water		215	215	215	215	215	215
Farm insurance		3,974	3,974	3,773	3,640	3,531	3,779
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		942	942	895	863	837	896
Advisor costs		36	36	35	33	32	35
Accountant & legal fees		1,041	1,041	988	953	925	989
Phone & utilities		3,300	3,300	3,090	2,990	2,968	3,130
Other overhead costs		1,311	1,311	1,255	1,229	1,223	1,266
Wages, rent and interest payments		874	1,039	1,246	1,438	1,257	1,171
Paid Labour		-	-	-	-	-	-
Total land rents		874	874	874	874	874	874
Total Interest on debt		-	165	372	564	383	297
Cow-Calf		19,973	19,189	17,508	16,231	15,300	17,640
Animal purchases		540	540	540	540	540	540
Purchased feed		9,622	9,193	8,677	8,219	7,765	8,695
Other fixed and var. costs *		9,811	9,456	8,291	7,472	6,995	8,405
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		11,792	13,521	10,643	9,234	9,801	10,998
Seed		674	638	611	585	623	626
Fertilizer		7,494	8,520	6,886	6,005	6,225	7,026
Herbicide		74	92	83	79	76	81
Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		3,179	3,900	2,715	2,229	2,544	2,913
Other crop and forage		372	372	348	337	334	353
Total Farm Costs (excludes unpaid labour)		95,100	93,051	82,066	76,875	75,994	84,617
Cash Costs (Total Farm Costs - Depreciation)		67,611	68,440	59,630	55,235	54,947	61,173
Depreciation & Opportunity Costs (including unpaid labour)		46,016	43,138	40,964	40,167	39,574	41,972
Total Economic Costs (cash, depr, opportunity)		113,627	111,578	100,593	95,402	94,521	103,145
Profits		2023	2022	2021	2020	2019	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		30,053	606	(6,247)	(3,805)	(1,384)	3,845
Net Cash Farm Income (excludes depreciation)		57,522	25,214	16,190	17,835	19,662	27,284

† 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*	65	65	65	65	65	65
Average male and female calf price (\$/head)	2,006	1,374	1,111	1,121	1,159	1,354
REVENUE						
Cow Calf	1,594	1,100	899	898	938	1,086
Cull animals and slaughter receipts	250	174	149	146	158	175
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,344	926	750	752	780	910
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,594	1,100	899	898	938	1,086
VARIABLE COSTS						
Animal purchases	8.3	8.3	8.3	8.3	8.3	8
Feed (purchase feed, fertiliser, seed, pesticides)	256.4	259.0	232.5	215.3	210.8	235
Machinery (maintenance, depreciation, contractor)	466.5	418.2	384.3	374.1	364.2	401
Fuel, energy, lubricants, water	164.6	168.3	116.5	97.1	109.5	131
Vet & medicine	59.9	55.1	49.0	43.9	37.0	49
Other inputs cow calf enterprise	131.0	126.9	117.1	112.3	113.2	120
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	296.6	282.6	270.7	270.6	268.7	278
Total Variable Costs	1,383.4	1,318.5	1,178.4	1,121.6	1,111.6	1,223
CAPITAL COSTS						
Insurance, taxes	81.6	77.7	74.1	73.1	71.9	76
Buildings (maintenance, depreciation)	170.0	161.0	150.1	143.9	142.2	153
Land Cost	-	-	-	-	-	-
Rented Land	13.0	13.0	13.0	13.0	13.0	13
Own Land	98.3	96.0	93.2	87.8	85.6	92
Capital Costs	-	-	-	-	-	-
Liabilities	-	1.9	4.4	6.9	4.8	4
Own capital	113.2	112.0	119.6	128.7	126.7	120
Total Capital Costs	476.1	461.7	454.5	453.5	444.2	458
COSTS						
Cash Costs	928.5	910.9	804.2	755.0	751.2	830
Depreciation Costs	422.9	378.6	345.2	332.9	323.8	361
Opportunity Costs	508.2	490.7	483.5	487.1	480.9	490
Total Production Costs	1,859.5	1,780.2	1,632.9	1,575.1	1,555.9	1,681
Profits						
	2023	2022	2021	2020	2019	5-yr. avg.
Short-term profit (cash costs)	665.4	189.4	94.6	142.7	186.7	256
Medium-term profit (cash + depreciation)	242.5	(189.2)	(250.6)	(190.3)	(137.2)	(105)
Long-term profit (cash + depreciation + opportunity)	(265.6)	(679.9)	(734.1)	(677.4)	(618.0)	(595)

*Model Maintains a stable herd size

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. AgriProfit\$ 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.

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.



Cow-Calf Enterprise (\$/lb Weaned)	2023	2022	2021	2020	2019	5 yr. avg.
Pounds Weaned	25,637	25,637	25,637	25,637	25,637	25,637
Average male and female weaning weight (lbs)	594	594	594	594	594	
Average male and female calf price at weaning (\$/lb)	3.38	2.31	1.87	1.89	1.95	2.28
REVENUE						
Cow Calf Operation	4.04	2.79	2.28	2.28	2.38	2.75
Cull animals and slaughter receipts	0.63	0.44	0.38	0.37	0.40	0.44
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	3.41	2.35	1.90	1.91	1.98	2.31
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	4.04	2.79	2.28	2.28	2.38	2.75
VARIABLE COSTS						
Animal purchases	0.02	0.02	0.02	0.02	0.02	0.02
Feed (purchase feed, fertiliser, seed, pesticides)	0.65	0.66	0.59	0.55	0.53	0.60
Machinery (maintenance, depreciation, contractor)	1.18	1.06	0.97	0.95	0.92	1.02
Fuel, energy, lubricants, water	0.42	0.43	0.30	0.25	0.28	0.33
Vet & medicine	0.15	0.14	0.12	0.11	0.09	0.12
Other inputs cow calf enterprise	0.33	0.32	0.30	0.28	0.29	0.30
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	0.75	0.72	0.69	0.69	0.68	0.70
Total Variable Costs	3.5	3.3	3.0	2.8	2.8	3.1
CAPITAL COSTS						
Insurance, taxes	0.21	0.20	0.19	0.19	0.18	0.19
Buildings (maintenance, depreciation)	0.43	0.41	0.38	0.36	0.36	0.39
Land Cost						
Rented Land	0.03	0.03	0.03	0.03	0.03	0.03
Owned Land	0.25	0.24	0.24	0.22	0.22	0.23
Capital Costs						
Liabilities	-	0.00	0.01	0.02	0.01	0.01
Own capital	0.29	0.28	0.30	0.33	0.32	0.30
Total Capital Costs	1.2	1.2	1.2	1.1	1.1	1.2
COSTS						
Cash Costs	2.35	2.31	2.04	1.91	1.90	2.10
Depreciation Costs	1.07	0.96	0.88	0.84	0.82	0.91
Opportunity Costs	1.29	1.24	1.23	1.23	1.22	1.24
Total Production Costs	4.71	4.51	4.14	3.99	3.94	4.26
Profits						
Short-term profit (cash costs)	1.69	0.48	0.24	0.36	0.47	0.65
Medium-term profit (cash + depreciation)	0.61	(0.48)	(0.64)	(0.48)	(0.35)	(0.27)
Long-term profit (cash + depreciation + opportunity)	(0.67)	(1.72)	(1.86)	(1.72)	(1.57)	(1.51)

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