

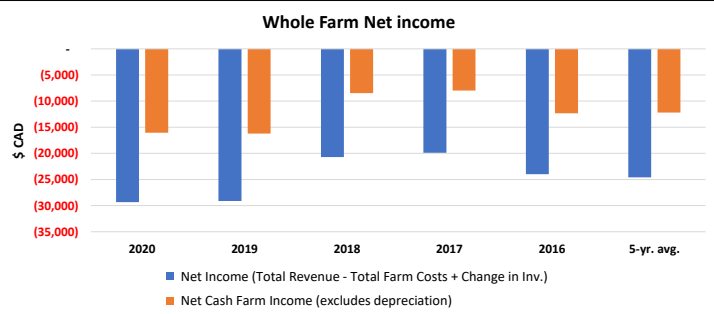
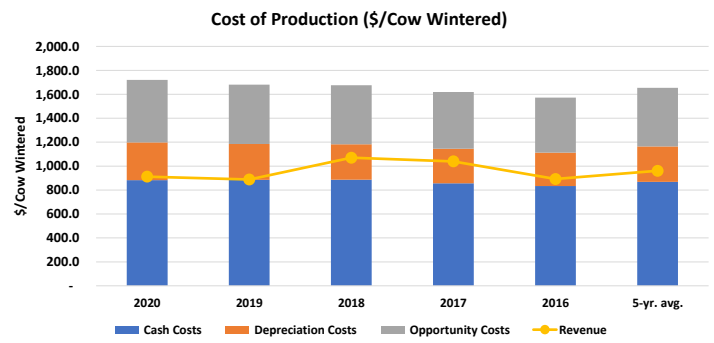
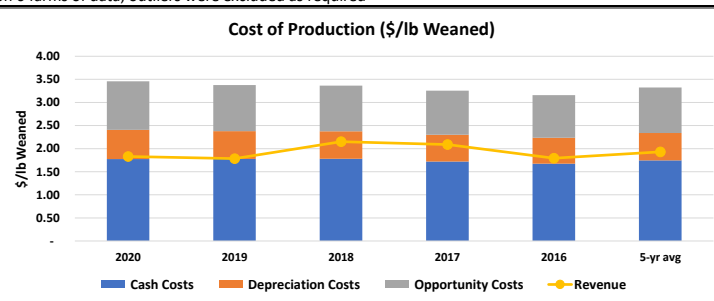


Farm Characteristics	CA-MT-2 Beef
Farm Description	A cow-calf operation producing homegrown feed with some direct farm-gate cow sales of boxed beef
Winter Feeding Ration (lbs/cow/day as fed)	Bale grazing 220 days on haylage (35 lbs) and dry hay (15 lbs), with mineral (77 g) and salt (64 g).
Retained Ownership/Replacement Ration (lb/head/day as fed)	Bale grazing 220 days on haylage (25 lbs) and barley (5 lbs), with mineral (65 g) and salt (54 g).
Disclaimer:	This benchmark is based on 6 farms of data; outliers were excluded as required

Environment	
Average Annual Temperature	5 °C
Average Annual Precipitation (mm)	1100-1400 mm
Ecoregion	New Brunswick Uplands
Relief	Rolling plains
Stocking Rate (Animal Unit days per acre)	0.50 cows/acre
Fertilize Hay (yes/no)	No
Fertilize Pasture (yes/no)	No
Hay Yield (tonnes/acre)	2.25
Grassland Acres (owned+rented)	72
Crop Acres (includes hay) (owned+rented)	57
Bush and other acres	N/A

Physical Performance Indicators	
Breed	Charolais, Simmental, Galloway
Cow:Bull Ratio	23:1
Bull Culling Rate (%)	33%
Mature Cow Weight (lb)	1,540
Heifer Retention for a steady herd (%)	6%
Cow Death Loss (%)	1.0%
Cow Culling Rate (%)	7.0%
Calves alive after 24hr/100 Cows exposed	96%
Calf Death Loss (%) 24 hr to weaning	5.0%
Calves weaned per 100 cows exposed	91
Total Liveweight Sold per Cow (lb)	639
Weaning Weight (lb)	599
205 day adjusted Weaning Weight (lb)	565
Average Daily Gain pre-weaning (lb)	2.37
Weaning Weight as % of Cow Weight	39%

Production System	
Herd size	35
Days on field feeding (e.g. swath grazing)	0
Days supplemented on pasture	0
Days on full winter feed	220
Calving Start date	January 01
Weaning date	September 01
Sale date	September 05
Retained ownership	Replacements
% of feed purchased	0.9%
% of land in annual crops	44%
Annual sales Retained Cattle (head)	N/A
Placement weight (lbs)	#N/A
Sale Weight (lbs)	N/A
Days on Feed	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 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

NOTE: Feed costs are based on cost of production if homegrown.

Whole Farm Overview Page

Overview							
Operation Maturity	Medium						
Herd Size	35	Beef Animals Sold from Retained Ownership		N/A			
Paid Labour (hours)	307						
Unpaid Labour (hours)	1,014						
Average wages - paid and unpaid (\$/hr)	16.88						
Revenue		2020	2019	2018	2017	2016	5-yr. avg.
Market Revenue	5-yr avg	38,497	38,301	44,411	42,904	37,311	40,285
Cow-Calf	83%	31,908	31,081	37,463	36,392	31,220	33,613
Cash Crops	17%	6,588	7,220	6,948	6,512	6,091	6,672
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue †	0%	15	21	23	19	16	19
Total Revenue	100%	38,512	38,322	44,434	42,923	37,327	40,304
Change in Inventory		-	-	-	-	-	-
Expenses		2020	2019	2018	2017	2016	5-yr. avg.
Depreciation		13,300	12,907	12,263	11,910	11,677	12,411
Machinery		10,200	9,860	9,291	8,998	8,814	9,432
Buildings		3,100	3,047	2,972	2,912	2,864	2,979
Overhead costs		20,131	21,127	20,789	19,816	19,242	20,221
Land improvement		3,030	3,044	2,989	2,916	2,860	2,968
Machinery Maintenance		3,344	3,322	3,265	3,237	3,180	3,270
Buildings Maintenance		974	989	971	932	912	956
Contract labour		-	-	-	-	-	-
Diesel, Gasoline, Natural Gas		3,045	4,255	4,382	3,870	3,575	3,825
Electricity		-	-	-	-	-	-
Water		-	-	-	-	-	-
Farm insurance		2,442	2,369	2,266	2,169	2,129	2,275
Disability and accident insurance		1,438	1,395	1,334	1,277	1,253	1,339
Farm taxes and duties		1,587	1,539	1,472	1,410	1,383	1,478
Advisor costs		80	78	74	71	70	75
Accountant & legal fees		1,350	1,310	1,253	1,199	1,177	1,258
Phone & utilities		1,642	1,630	1,599	1,563	1,539	1,595
Other overhead costs		1,200	1,196	1,185	1,172	1,163	1,183
Wages, rent and interest payments		22,248	21,352	20,332	19,512	18,786	20,446
Paid Labour		5,827	5,653	5,407	5,176	5,080	5,429
Unpaid Labour		17,014	16,657	17,316	17,411	17,176	17,115
Total land rents		239	235	210	210	193	217
Total Interest on debt		16,182	15,463	14,716	14,126	13,513	14,800
Cow-Calf		6,273	6,019	5,974	5,878	5,922	6,013
Animal purchases		1,254	1,254	1,254	1,254	1,254	1,254
Purchased feed		1,624	1,412	1,428	1,393	1,465	1,464
Other fixed and var. costs *		3,395	3,352	3,291	3,231	3,204	3,295
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		5,897	6,012	5,777	5,676	5,680	5,808
Seed		1,357	1,384	1,254	1,218	1,168	1,276
Fertilizer		2,801	2,904	2,827	2,795	2,869	2,839
Herbicide		99	94	93	91	90	93
Fungicide & Insecticide		247	247	247	247	247	247
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		-	-	-	-	-	-
Other crop and forage		1,393	1,383	1,356	1,326	1,305	1,353
Total Farm Costs (excludes unpaid labour)		67,850	67,417	65,135	62,792	61,308	64,901
Cash Costs (Total Farm Costs - Depreciation)		54,550	54,509	52,873	50,882	49,631	52,489
Depreciation & Opportunity Costs (including unpaid labour)		30,314	29,565	29,578	29,321	28,853	29,526
Total Economic Costs (cash, depr, opportunity)		84,864	84,074	82,451	80,203	78,484	82,015
Profits		2020	2019	2018	2017	2016	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		(29,338)	(29,094)	(20,702)	(19,869)	(23,981)	(24,597)
Net Cash Farm Income (excludes depreciation)		(16,054)	(16,208)	(8,462)	(7,979)	(12,320)	(12,205)

† 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 Wintered)	2020	2019	2018	2017	2016	5 yr. avg.
Cows Wintered *	35	35	35	35	35	35
Average male and female calf price (\$/head)	926	927	1,156	1,090	915	1,003
REVENUE						
Cow Calf	912	888	1,070	1,040	892	960
Cull animals and slaughter receipts	135	111	103	130	124	121
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	777	777	967	910	768	840
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	912	888	1,070	1,040	892	960
VARIABLE COSTS						
Animal purchases	35.8	35.8	35.8	35.8	35.8	36
Feed (purchase feed, fertiliser, seed, pesticides)	197.9	193.2	189.6	185.3	185.6	190
Machinery (maintenance, depreciation, contractor)	320.7	305.6	302.6	296.5	286.7	302
Fuel, energy, lubricants, water	72.1	98.7	105.6	93.8	85.5	91
Vet & medicine	35.3	34.2	32.7	31.3	30.7	33
Other inputs cow calf enterprise	162.9	159.3	160.4	158.1	155.2	159
Labour						
Paid Labour	138.0	131.1	130.3	125.4	121.5	129
Unpaid Labour	518.5	492.5	489.6	471.4	456.4	486
Total Variable Costs	1,481.3	1,450.4	1,446.7	1,397.6	1,357.4	1,427
CAPITAL COSTS						
Insurance, taxes	131.7	125.9	123.7	118.9	115.6	123
Buildings (maintenance, depreciation)	96.5	93.6	95.0	93.2	90.3	94
Land Cost	-	-	-	-	-	-
Rented Land	6.0	5.9	5.3	5.3	4.8	5
Own Land	4.0	3.9	3.6	3.6	3.2	4
Capital Costs	-	-	-	-	-	-
Liabilities	1.1	1.1	1.1	1.1	1.0	1
Own capital	0.0	0.0	0.0	0.0	0.0	0
Total Capital Costs	239.3	230.4	228.6	221.9	214.9	227
COSTS						
Cash Costs	883.1	885.1	886.6	856.0	833.6	869
Depreciation Costs	315.0	299.3	295.5	288.6	279.2	296
Opportunity Costs	522.5	496.4	493.2	474.9	459.6	489
Total Production Costs	1,720.6	1,680.8	1,675.3	1,619.5	1,572.4	1,654
Profits						
Short-term profit (cash costs)	28.5	2.9	183.8	183.8	58.4	91
Medium-term profit (cash + depreciation)	(286.4)	(296.3)	(111.8)	(104.8)	(220.8)	(204)
Long-term profit (cash + depreciation + opportunity)	(808.9)	(792.8)	(604.9)	(579.7)	(680.3)	(693)

*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. 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 (Agri Profit\$) 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.

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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)	2020	2019	2018	2017	2016	5 yr. avg.
Pounds Weaned	17,421	17,421	17,421	17,421	17,421	17,421
Average male and female weaning weight (lbs)	599	599	599	599	599	599
Average male and female calf price at weaning (\$/lb)	1.55	1.55	1.93	1.82	1.53	1.68
REVENUE						
Cow Calf Operation	1.83	1.78	2.15	2.09	1.79	1.93
Cull animals and slaughter receipts	0.27	0.22	0.21	0.26	0.25	0.24
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1.56	1.56	1.94	1.83	1.54	1.69
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1.83	1.78	2.15	2.09	1.79	1.93
VARIABLE COSTS						
Animal purchases	0.07	0.07	0.07	0.07	0.07	0.07
Feed (purchase feed, fertiliser, seed, pesticides)	0.40	0.39	0.38	0.37	0.37	0.38
Machinery (maintenance, depreciation, contractor)	0.64	0.61	0.61	0.60	0.58	0.61
Fuel, energy, lubricants, water	0.14	0.20	0.21	0.19	0.17	0.18
Vet & medicine	0.07	0.07	0.07	0.06	0.06	0.07
Other inputs cow calf enterprise	0.33	0.32	0.32	0.32	0.31	0.32
Labour						
Paid Labour	0.28	0.26	0.26	0.25	0.24	0.26
Unpaid Labour	1.04	0.99	0.98	0.95	0.92	0.98
Total Variable Costs	3.0	2.9	2.9	2.8	2.7	2.9
CAPITAL COSTS						
Insurance, taxes	0.26	0.25	0.25	0.24	0.23	0.25
Buildings (maintenance, depreciation)	0.19	0.19	0.19	0.19	0.18	0.19
Land Cost						
Rented Land	0.01	0.01	0.01	0.01	0.01	0.01
Owned Land	0.01	0.01	0.01	0.01	0.01	0.01
Capital Costs						
Liabilities	0.00	0.00	0.00	0.00	0.00	0.00
Own capital	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Costs	0.5	0.5	0.5	0.4	0.4	0.5
COSTS						
Cash Costs	1.77	1.78	1.78	1.72	1.67	1.75
Depreciation Costs	0.63	0.60	0.59	0.58	0.56	0.59
Opportunity Costs	1.05	1.00	0.99	0.95	0.92	0.98
Total Production Costs	3.46	3.38	3.37	3.25	3.16	3.32
Profits	2020	2019	2018	2017	2016	5-yr. avg.
Short-term profit (cash costs)	0.06	0.01	0.37	0.37	0.12	0.18
Medium-term profit (cash + depreciation)	(0.58)	(0.60)	(0.22)	(0.21)	(0.44)	(0.41)
Long-term profit (cash + depreciation + opportunity)	(1.63)	(1.59)	(1.22)	(1.16)	(1.37)	(1.39)

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