

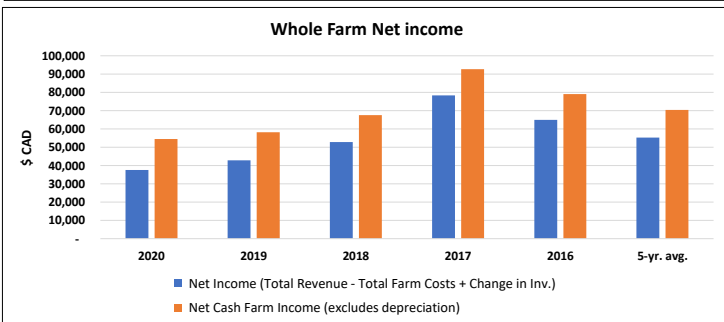
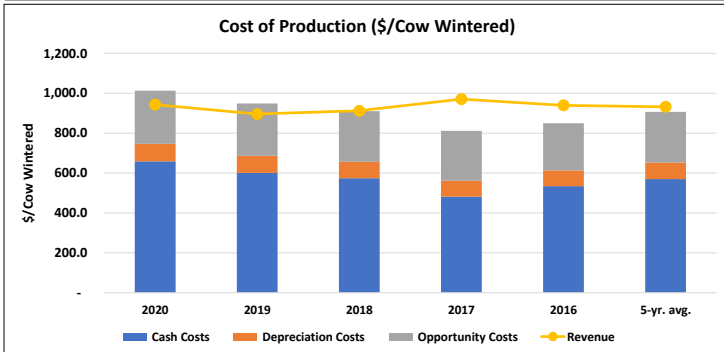
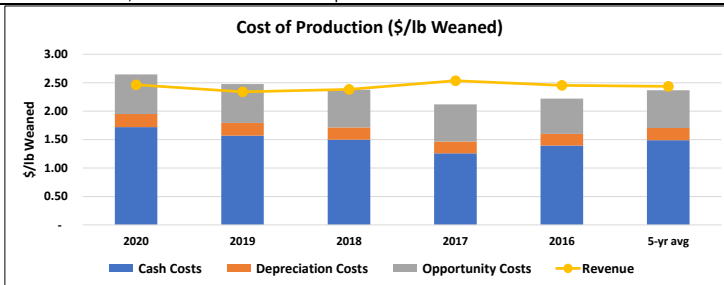


Farm Characteristics	CA-ON-2
Farm Description	A spring and fall calving operation producing cash crops and predominantly homegrown feed around Lake Simcoe-Rideau.
Winter Feeding Ration (lbs/cow/day as fed)	180 days on free choice (28 lbs) Hay, 5 lbs of corn distiller solubles with free choice mineral
Retained Ownership/Replacement Ration (lb/head/day as fed)	180 days on 6 lbs hay (good quality), 6.5 lb barley grain, 1.5 lb corn distiller soluble and 1 lb protein supplement
Disclaimer:	This benchmark is based on 6 farms of data; outliers were excluded as required

Environment	
Average Annual Temperature	4.9-7.8°C
Average Annual Precipitation (mm)	759-1087 mm
Ecoregion	Lake Simcoe-Rideau
Relief	Plain
Stocking Rate (Animal Unit days per acre)	0.60 cows/acre
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Hay Yield (tonnes/acre)	2.75
Grassland Acres (owned+rented)	270
Crop Acres (includes hay) (owned+rented)	111
Bush and other acres	0

Physical Performance Indicators	
Breed	Angus
Cow:Bull Ratio	24:1
Bull Culling Rate (%)	14%
Mature Cow Weight (lb)	1,200
Heifer Retention for a steady herd (%)	15%
Cow Death Loss (%)	1.7%
Cow Culling Rate (%)	13.8%
Calves alive after 24hr/100 Cows exposed	92%
Calf Death Loss (%) 24 hr to weaning	9.2%
Calves weaned per 100 cows exposed	85
Total Liveweight Sold per Cow (lb)	603
Weaning Weight (lb)	557
205 day adjusted Weaning Weight (lb)	586
Average Daily Gain pre-weaning (lb)	2.42
Weaning Weight as % of Cow Weight	46%

Production System	
Herd size	160
Days on field feeding (e.g. swath grazing)	0
Days supplemented on pasture	0
Days on full winter feed	180
Calving Start date	15-Mar/1-Sept
Weaning date	21-Oct/9-Apr
Sale date	15-Jun/15-Jan
Retained ownership	Replacements
% of feed purchased	16.5%
% of land in annual crops	29%
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	160	Beef Animals Sold from Retained Ownership		N/A			
Paid Labour (hours)	628						
Unpaid Labour (hours)	1,112						
Average wages - paid and unpaid (\$/hr)	19.75						
Revenue		2020	2019	2018	2017	2016	5-yr. avg.
Market Revenue	5-yr avg	150,874	143,319	145,956	155,665	150,299	149,223
Cow-Calf	89%	150,874	143,319	145,956	155,277	150,299	149,145
Cash Crops	0%	-	-	-	388	-	78
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue †	11%	18,109	18,109	18,112	18,116	18,113	18,112
Total Revenue	100%	168,982	161,429	164,068	173,781	168,412	167,334
Change in Inventory		(1,121)	-	-	-	-	(224)
Expenses		2020	2019	2018	2017	2016	5-yr. avg.
Depreciation		15,818	15,398	14,723	14,331	14,062	14,866
Machinery		9,213	8,906	8,391	8,127	7,960	8,519
Buildings		6,605	6,493	6,332	6,204	6,101	6,347
Overhead costs		26,422	26,698	26,179	24,817	24,090	25,641
Land improvement		961	965	950	930	914	944
Machinery Maintenance		5,901	5,799	5,560	5,419	5,281	5,592
Buildings Maintenance		2,851	2,870	2,799	2,719	2,648	2,777
Contract labour		-	-	-	-	-	-
Diesel, Gasoline, Natural Gas		1,867	2,605	2,901	2,511	2,166	2,410
Electricity		5,269	5,142	5,027	4,651	4,651	4,948
Water		-	-	-	-	-	-
Farm insurance		3,803	3,690	3,529	3,379	3,316	3,543
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		3,503	3,398	3,250	3,111	3,054	3,263
Advisor costs		325	315	302	289	283	303
Accountant & legal fees		660	640	612	586	575	615
Phone & utilities		1,115	1,107	1,086	1,061	1,045	1,083
Other overhead costs		168	167	163	160	157	163
Wages, rent and interest payments		28,873	26,866	24,085	22,075	20,414	24,463
Paid Labour		13,728	13,318	12,737	12,195	11,968	12,789
Unpaid Labour		21,989	21,883	21,928	22,025	21,998	21,964
Total land rents		5,337	5,098	4,778	4,612	4,215	4,808
Total Interest on debt		9,808	8,450	6,570	5,269	4,231	6,866
Cow-Calf		52,962	43,122	39,975	28,077	38,629	40,553
Animal purchases		5,175	5,175	5,175	5,175	5,175	5,175
Purchased feed		32,589	23,468	19,991	9,875	19,986	21,182
Other fixed and var. costs *		15,198	14,479	14,809	13,028	13,469	14,196
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		6,253	6,543	6,305	6,180	6,229	6,302
Seed		2,295	2,412	2,223	2,209	2,266	2,281
Fertilizer		2,252	2,334	2,273	2,247	2,307	2,282
Herbicide		-	-	-	-	-	-
Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		256	357	398	344	297	330
Other crop and forage		1,450	1,439	1,412	1,380	1,359	1,408
Total Farm Costs (excludes unpaid labour)		130,327	118,628	111,267	95,480	103,424	111,825
Cash Costs (Total Farm Costs - Depreciation)		114,510	103,229	96,544	81,149	89,363	96,959
Depreciation & Opportunity Costs (including unpaid labour)		37,807	37,281	36,651	36,356	36,060	36,831
Total Economic Costs (cash, depr, opportunity)		152,316	140,511	133,195	117,504	125,422	133,790
Profits		2020	2019	2018	2017	2016	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		37,534	42,801	52,801	78,301	64,987	55,285
Net Cash Farm Income (excludes depreciation)		54,472	58,198	67,520	92,624	79,044	70,372

† 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 *	160	160	160	160	160	160
Average male and female calf price (\$/head)	1,121	1,066	1,094	1,132	1,074	1,097
REVENUE						
Cow Calf	943	896	912	970	939	932
Cull animals and slaughter receipts	173	163	158	190	202	177
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	770	733	754	781	737	755
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	943	896	912	970	939	932
VARIABLE COSTS						
Animal purchases	32.3	32.3	32.3	32.3	32.3	32
Feed (purchase feed, fertiliser, seed, pesticides)	247.2	191.4	167.8	104.0	167.7	176
Machinery (maintenance, depreciation, contractor)	84.3	81.6	77.6	75.6	73.9	79
Fuel, energy, lubricants, water	46.9	51.3	52.9	47.8	45.2	49
Vet & medicine	41.4	40.5	39.7	38.3	37.6	40
Other inputs cow calf enterprise	60.7	56.2	58.6	49.1	52.7	55
Labour						
Paid Labour	76.5	73.9	70.8	68.1	66.8	71
Unpaid Labour	139.2	134.4	128.8	123.8	121.4	130
Total Variable Costs	728.5	661.7	628.5	539.2	597.6	631
CAPITAL COSTS						
Insurance, taxes	43.1	41.7	39.9	38.3	37.6	40
Buildings (maintenance, depreciation)	52.7	52.0	50.8	49.8	48.8	51
Land Cost	-	-	-	-	-	-
Rented Land	33.4	31.9	29.9	28.8	26.3	30
Own Land	106.2	103.0	98.7	96.5	84.2	98
Capital Costs	-	-	-	-	-	-
Liabilities	28.0	33.4	35.8	29.4	23.6	30
Own capital	20.7	24.6	26.8	29.2	31.8	27
Total Capital Costs	284.1	286.5	281.8	272.0	252.3	275
COSTS						
Cash Costs	658.4	600.8	574.2	481.7	534.1	570
Depreciation Costs	88.2	85.4	81.9	80.0	78.4	83
Opportunity Costs	266.0	261.9	254.2	249.5	237.4	254
Total Production Costs	1,012.6	948.2	910.3	811.3	849.9	906
Profits						
Short-term profit (cash costs)	284.6	294.9	338.1	488.7	405.3	362
Medium-term profit (cash + depreciation)	196.4	209.5	256.2	408.7	326.8	280
Long-term profit (cash + depreciation + opportunity)	(69.6)	(52.4)	1.9	159.2	89.4	26

*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 (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)	2020	2019	2018	2017	2016	5 yr. avg.
Pounds Weaned	61,252	61,252	61,252	61,252	61,252	61,252
Average male and female weaning weight (lbs)	557	557	557	557	557	
Average male and female calf price at weaning (\$/lb)	2.01	1.91	1.96	2.03	1.93	1.97
REVENUE						
Cow Calf Operation	2.46	2.34	2.38	2.54	2.45	2.43
Cull animals and slaughter receipts	0.45	0.42	0.41	0.50	0.53	0.46
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	2.01	1.92	1.97	2.04	1.93	1.97
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	2.46	2.34	2.38	2.54	2.45	2.43
VARIABLE COSTS						
Animal purchases	0.08	0.08	0.08	0.08	0.08	0.08
Feed (purchase feed, fertiliser, seed, pesticides)	0.65	0.50	0.44	0.27	0.44	0.46
Machinery (maintenance, depreciation, contractor)	0.22	0.21	0.20	0.20	0.19	0.21
Fuel, energy, lubricants, water	0.12	0.13	0.14	0.12	0.12	0.13
Vet & medicine	0.11	0.11	0.10	0.10	0.10	0.10
Other inputs cow calf enterprise	0.16	0.15	0.15	0.13	0.14	0.14
Labour						
Paid Labour	0.20	0.19	0.18	0.18	0.17	0.19
Unpaid Labour	0.36	0.35	0.34	0.32	0.32	0.34
Total Variable Costs	1.9	1.7	1.6	1.4	1.6	1.6
CAPITAL COSTS						
Insurance, taxes	0.11	0.11	0.10	0.10	0.10	0.10
Buildings (maintenance, depreciation)	0.14	0.14	0.13	0.13	0.13	0.13
Land Cost						
Rented Land	0.09	0.08	0.08	0.08	0.07	0.08
Owned Land	0.28	0.27	0.26	0.25	0.22	0.26
Capital Costs						
Liabilities	0.07	0.09	0.09	0.08	0.06	0.08
Own capital	0.05	0.06	0.07	0.08	0.08	0.07
Total Capital Costs	0.7	0.7	0.7	0.7	0.7	0.7
COSTS						
Cash Costs	1.72	1.57	1.50	1.26	1.40	1.49
Depreciation Costs	0.23	0.22	0.21	0.21	0.20	0.22
Opportunity Costs	0.69	0.68	0.66	0.65	0.62	0.66
Total Production Costs	2.65	2.48	2.38	2.12	2.22	2.37
Profits	2020	2019	2018	2017	2016	5-yr. avg.
Short-term profit (cash costs)	0.74	0.77	0.88	1.28	1.06	0.95
Medium-term profit (cash + depreciation)	0.51	0.55	0.67	1.07	0.85	0.73
Long-term profit (cash + depreciation + opportunity)	(0.18)	(0.14)	0.01	0.42	0.23	0.07

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