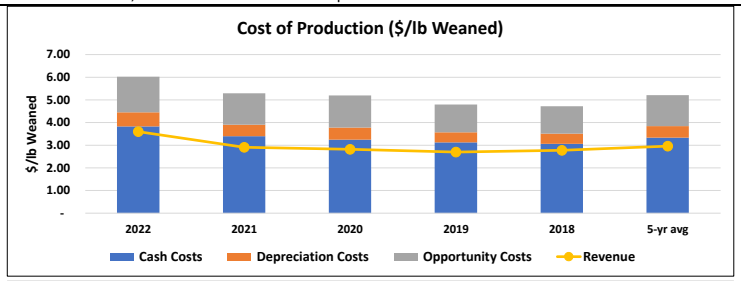
Farm Summary

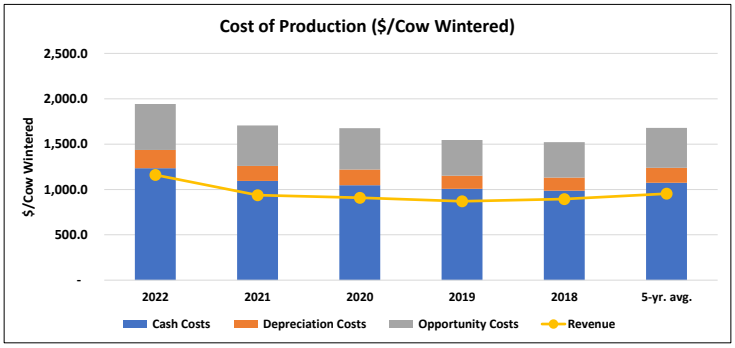
Farm Characteristics	*CA-ON-4*
Farm Description	A cow-calf operation producing cash crops and predominantly homegrown feed around Lake Wabigoon.
Winter Feeding Ration (lbs/cow/day as fed)	178 days bale graze 35lb grass-legume mix (Oct to Feb), after calving 55 days on 35lb DMI oat/pealage bale (around 40% moisture)(March 1 to May 25) with 100g mineral throughout.
Retained Ownership/Replacement Ration (lb/head/day as fed)	12 lb DMI oat/pealage (40% moisture) and 6 lb of grain with mineral
Disclaimer:	This benchmark is based on 3 farms of data; outliers were excluded as required.

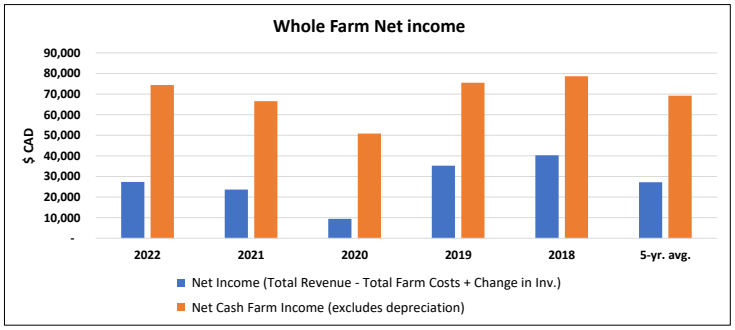
Environment	
Average Annual Temperature	0.1 to 2.6°C
Average Annual Precipitation (mm)	565 to 724 mm
Ecoregion	Lake Wabigoon (4S)
Stocking Rate (Animal Unit days per acre)	0.20 cows/acre
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	2.3
Grassland Acres (owned+rented)	499
Crop Acres (includes hay) (owned+rented)	447
Bush and other acres	0

Physical Performance Indicators	
Breed	Angus, Simmental, Limousin
Cow:Bull Ratio	17:1
Bull Culling Rate (%)	33%
Mature Cow Weight (lb)	1,350
Heifer Retention for a steady herd (%)	21%
Cow Death Loss (%)	4.5%
Cow Culling Rate (%)	16.0%
Calves alive after 24hr/100 Cows exposed	88
Calf Death Loss (%) 24 hr to weaning	8%
Calves weaned per 100 cows exposed	80
Total Liveweight Sold per Cow (lb)	612
Weaning Weight (lb)	551
205 day adjusted Weaning Weight (lb)	582
Average Daily Gain pre-weaning (lb)	2.40
Weaning Weight as % of Cow Weight	41%

Production System	
Herd size	100
Days on field feeding (e.g. swath grazing)	0
Days supplemented on pasture	55
Days on full winter feed	178
Calving Start date	March 01
Weaning date	October 01
Sale date	October 01
Retained ownership	Replacements
% of feed purchased	0.5%
% of land in crops	47%
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 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.

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Whole Farm Overview Page

Overview							
Operation Maturity	Mature						
Herd Size	100	Beef Animals Sold from Retained Ownership			N/A		
Paid Labour (livestock only) (hours)	1,187						
Unpaid Labour (livestock only) (hours)	1,287						
Average wages - paid and unpaid ($/hr)	24.02						

Revenue		**2022**	**2021**	**2020**	**2019**	**2018**	**5-yr. avg.**
Market Revenue	***5-yr avg***	***270,931***	***242,981***	***217,195***	***242,233***	***237,891***	***242,246***
Cow-Calf	39%	116,029	93,690	90,865	86,969	89,399	*95,390*
Cash Crops	61%	154,901	149,291	126,331	155,263	148,493	*146,856*
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue ǂ	0%	6	1	1	3	7	4
Total Revenue	***100%***	***270,937***	***242,982***	***217,196***	***242,235***	***237,898***	***242,250***
Change in Inventory		-	-	-	-	-	-

Expenses	**2022**	**2021**	**2020**	**2019**	**2018**	**5-yr. avg.**
Depreciation	***47,040***	***42,899***	***41,375***	***40,247***	***38,422***	***41,997***
Machinery	29,960	26,928	26,000	25,134	23,682	*26,341*
Buildings	17,080	15,971	15,375	15,114	14,740	*15,656*
Quota econ. Accounting	-	-	-	-	-	-
Overhead costs	***79,923***	***68,106***	***61,740***	***64,794***	***64,669***	***67,846***
Land improvement	13,783	12,784	12,333	12,387	12,192	*12,696*
Machinery Maintenance	13,609	13,431	13,078	12,852	12,322	*13,058*
Buildings Maintenance	2,469	2,162	2,067	2,081	2,029	*2,161*
Contract labour	728	691	667	647	619	*670*
Diesel, Gasoline, Natural Gas	22,940	14,240	9,633	13,442	14,972	*15,046*
Electricity	1,780	1,509	1,480	1,444	1,412	*1,525*
Water	-	-	-	-	-	-
Farm insurance	9,026	8,570	8,267	8,020	7,670	*8,310*
Disability and accident insurance	2,060	1,956	1,887	1,830	1,750	*1,897*
Farm taxes and duties	4,727	4,488	4,330	4,200	4,017	*4,352*
Advisor costs	182	173	167	162	155	*168*
Accountant & legal fees	2,293	2,177	2,100	2,037	1,948	*2,111*
Phone & utilities	3,642	3,411	3,300	3,276	3,213	*3,368*
Other overhead costs	2,686	2,515	2,433	2,416	2,369	*2,484*
Wages, rent and interest payments	***35,868***	***36,631***	***38,296***	***35,165***	***29,259***	***35,044***
Paid Labour	27,217	25,840	24,927	24,183	23,128	*25,059*
Total land rents	4,348	3,642	2,980	2,846	2,668	*3,297*
Total Interest on debt	4,303	7,149	10,389	8,135	3,464	*6,688*
Cow-Calf	***33,014***	***29,978***	***27,953***	***27,301***	***27,488***	***29,147***
Animal purchases	10,666	10,666	10,666	10,666	10,666	*10,666*
Purchased feed	6,246	5,263	4,570	3,883	3,957	*4,784*
Other fixed and var. costs *	16,102	14,049	12,717	12,752	12,865	*13,697*
Retained Ownership	-	-	-	-	-	-
Animal purchases	-	-	-	-	-	-
Purchased feed	-	-	-	-	-	-
Other fixed and var. costs *	-	-	-	-	-	-
Crop and forage	***47,752***	***41,709***	***38,378***	***39,468***	***37,818***	***41,025***
Seed	12,314	11,731	11,340	11,918	10,980	*11,657*
Fertilizer	25,801	20,852	18,183	18,850	18,355	*20,408*
Herbicide	865	784	748	715	701	*762*
Fungicide & Insecticide	1,321	1,321	1,321	1,321	1,321	*1,321*
Irrigation	-	-	-	-	-	-
Contract labour	3,455	3,280	3,164	3,070	2,936	*3,181*
Fuel costs (crop & forage)	-	-	-	-	-	-
Other crop and forage	3,996	3,742	3,621	3,594	3,525	*3,696*
Total Farm Costs (excludes unpaid labour)	***243,597***	***219,323***	***207,742***	***206,974***	***197,656***	***215,058***
Cash Costs (Total Farm Costs - Depreciation)	196,557	176,424	166,367	166,727	159,234	173,062
Depreciation & Opportunity Costs (including unpaid labour)	77,952	73,810	72,286	71,158	69,333	72,908
Total Economic Costs (cash, depr, opportunity)	274,508	250,234	238,653	237,886	228,567	245,970

Profits	**2022**	**2021**	**2020**	**2019**	**2018**	**5-yr. avg.**
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)	**27,340**	**23,660**	**9,454**	**35,261**	**40,242**	**27,192**
Net Cash Farm Income (excludes depreciation)	**74,374**	**66,558**	**50,829**	**75,506**	**78,658**	**69,185**

ǂ 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 ($/Cow Wintered)	2022	2021	2020	2019	2018	5 yr. avg.
Cows Wintered *	100	100	100	100	100	100
Average male and female calf price ($/head)	1,350	1,146	1,108	1,053	1,118	*1,155*
REVENUE						
Cow Calf	1,160	937	909	870	894	954
Cull animals and slaughter receipts	344	247	240	231	215	256
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	816	690	668	638	678	698
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,160	937	909	870	894	954
VARIABLE COSTS						
Animal purchases	106.7	106.7	106.7	106.7	106.7	107
Feed (purchase feed, fertiliser, seed, pesticides)	338.2	298.7	276.2	274.7	267.5	291
Machinery (maintenance, depreciation, contractor)	196.7	164.9	172.7	144.9	143.6	165
Fuel, energy, lubricants, water	116.6	68.8	53.5	61.1	69.5	74
Vet & medicine	67.2	60.8	55.8	54.7	53.8	58
Other inputs cow calf enterprise	120.7	103.6	97.8	93.4	95.9	102
Labour						
Paid Labour	272.2	258.4	249.3	241.8	231.3	251
Unpaid Labour	351.8	300.7	314.7	262.0	262.3	298
Total Variable Costs	1,570.1	1,362.5	1,326.7	1,239.4	1,230.4	1,346
CAPITAL COSTS						
Insurance, taxes	82.6	73.9	74.6	66.5	65.2	73
Buildings (maintenance, depreciation)	83.7	69.9	73.0	61.7	63.0	70
Land Cost	-	-	-	-	-	
Rented Land	32.3	27.0	22.1	21.1	19.8	24
Own Land	107.1	98.5	90.5	88.8	86.7	94
Capital Costs	-	-	-	-	-	
Liabilities	19.1	27.6	37.8	25.0	15.5	25
Own capital	47.6	46.7	51.2	43.3	41.5	46
Total Capital Costs	372.4	343.6	349.2	306.5	291.8	333
COSTS						
Cash Costs	1,234.5	1,094.8	1,046.3	1,007.2	987.3	1,074
Depreciation Costs	201.5	165.4	173.1	144.5	144.4	166
Opportunity Costs	506.5	445.9	456.4	394.2	390.5	439
Total Production Costs	1,942.5	1,706.2	1,675.8	1,545.9	1,522.2	1,679
Profits	**2022**	**2021**	**2020**	**2019**	**2018**	**5-yr. avg.**
Short-term profit (cash costs)	(74.3)	(157.9)	(137.7)	(137.5)	(93.3)	(120)
Medium-term profit (cash + depreciation)	(275.7)	(323.3)	(310.8)	(282.0)	(237.7)	(286)
Long-term profit (cash + depreciation + opportunity)	(782.2)	(769.3)	(767.2)	(676.2)	(628.2)	(725)

*Model Maintains a stable herd size

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

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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 ($/lb Weaned)	2022	2021	2020	2019	2018	5 yr. avg.
Pounds Weaned	32,241	32,241	32,241	32,241	32,241	32,241
Average male and female weaning weight (lbs)	550	550	550	550	550	
Average male and female calf price at weaning ($/lb)	2.45	2.08	2.01	1.91	2.03	2.10
REVENUE						
Cow Calf Operation	3.60	2.91	2.82	2.70	2.77	2.96
Cull animals and slaughter receipts	1.07	0.77	0.74	0.72	0.67	0.79
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	2.53	2.14	2.07	1.98	2.10	2.17
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	3.60	2.91	2.82	2.70	2.77	2.96
VARIABLE COSTS						
Animal purchases	0.33	0.33	0.33	0.33	0.33	0.33
Feed (purchase feed, fertiliser, seed, pesticides)	1.05	0.93	0.86	0.85	0.83	0.90
Machinery (maintenance, depreciation, contractor)	0.61	0.51	0.54	0.45	0.45	0.51
Fuel, energy, lubricants, water	0.36	0.21	0.17	0.19	0.22	0.23
Vet & medicine	0.21	0.19	0.17	0.17	0.17	0.18
Other inputs cow calf enterprise	0.37	0.32	0.30	0.29	0.30	0.32
Labour						
Paid Labour	0.84	0.80	0.77	0.75	0.72	0.78
Unpaid Labour	1.09	0.93	0.98	0.81	0.81	0.93
Total Variable Costs	4.9	4.2	4.1	3.8	3.8	4.2
CAPITAL COSTS						
Insurance, taxes	0.26	0.23	0.23	0.21	0.20	0.23
Buildings (maintenance, depreciation)	0.26	0.22	0.23	0.19	0.20	0.22
Land Cost						
Rented Land	0.10	0.08	0.07	0.07	0.06	0.08
Owned Land	0.33	0.31	0.28	0.28	0.27	0.29
Capital Costs						
Liabilities	0.06	0.09	0.12	0.08	0.05	0.08
Own capital	0.15	0.14	0.16	0.13	0.13	0.14
Total Capital Costs	1.2	1.1	1.1	1.0	0.9	1.0
COSTS						
Cash Costs	3.83	3.40	3.25	3.12	3.06	3.33
Depreciation Costs	0.62	0.51	0.54	0.45	0.45	0.51
Opportunity Costs	1.57	1.38	1.42	1.22	1.21	1.36
Total Production Costs	6.03	5.29	5.20	4.79	4.72	5.21
Profits	**2022**	**2021**	**2020**	**2019**	**2018**	**5-yr. avg.**
Short-term profit (cash costs)	(0.23)	(0.49)	(0.43)	(0.43)	(0.29)	(0.37)
Medium-term profit (cash + depreciation)	(0.86)	(1.00)	(0.96)	(0.87)	(0.74)	(0.89)
Long-term profit (cash + depreciation + opportunity)	(2.43)	(2.39)	(2.38)	(2.10)	(1.95)	(2.25)

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