

Farm Characteristics	LL_06
Farm Description	A cow-calf operation with 273 cows, utilizing mostly homegrown feed.
Winter Feeding Ration (lbs/cow/day as fed)	58 days corn grazing supplemented with hay, followed by 85 days on cereal silage (70 lb) and 60 days on hay (31 lbs)
Retained Ownership/Replacement Ratio (lb/head/day as fed)	Replacement: 60% of mature cow ration

Disclaimer:

This benchmark is based on N/A 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	1.5° C
Average Annual Precipitation (mm)	400-500
Ecoregion	Aspen Parkland
Stocking Rate (Animal Unit days per acre)	55
Fertilize Hay (yes/no)	No
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	1.5
Grassland Acres (owned+rented)	1,287
Crop Acres (includes hay) (owned+rented)	395
Bush and other acres	0

Physical Performance Indicators	
	Angus, Hereford, Simmental, Limousin
Breed	
Cow:Bull Ratio	25:1
Bull Culling Rate (%)	27%
Mature Cow Weight (lb)	1,363
Heifer Retention for a steady herd (%)	10%
Cow Death Loss (%)	1.7%
Cow Culling Rate (%)	8.4%
Calves alive after 24hr/100 Cows exposed	90
Calf Death Loss (%) 24 hr to weaning	5%
Calves weaned per 100 cows exposed	86
Total Liveweight Sold per Cow (lb)	491
Weaning Weight (lb)	491
205 day adjusted Weaning Weight (lb)	506
Average Daily Gain pre-weaning (lb)	2.05
Weaning Weight as % of Cow Weight	36%

Production System	
Herd size	273
Days on field feeding (e.g. swath grazing)	58
Days supplemented on pasture	0
Days on full winter feed	145
Calving Start date	April 23
Weaning date	November 22
Sale date	November 22
Retained ownership	Replacements
% of feed purchased	0.7%
% of land in crops	23%
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:

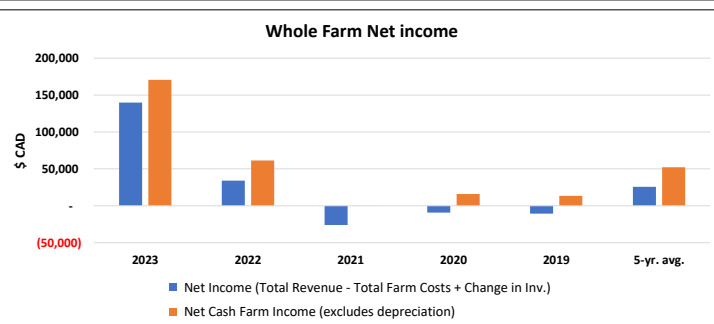
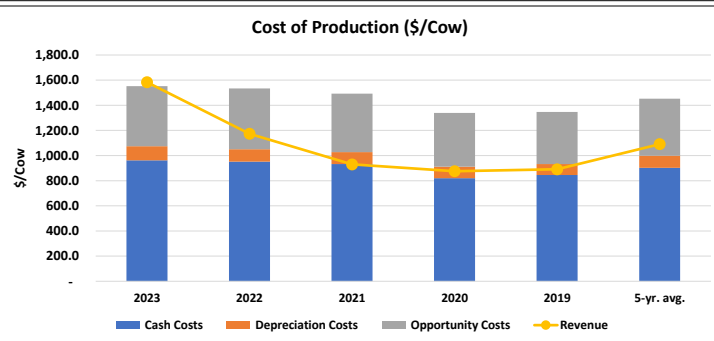
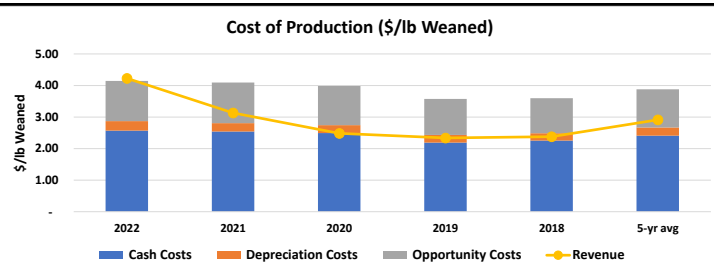
Cost of Production: Cash Cost + Depreciation + Opportunity Costs

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 Overview Page

Overview							
Operation Maturity	N/A						
Herd Size	273			Beef Animals Sold from Retained Ownership	N/A		
Paid Labour (livestock only) (hours)	1,271						
Unpaid Labour (livestock only) (hours)	2,129						
Average wages - paid and unpaid (\$/hr)	35.34						
Revenue		2023	2022	2021	2020	2019	5-yr. avg.
Market Revenue	5-yr avg	420,863	291,367	228,225	239,007	243,298	284,552
Cow-Calf	95%	420,863	291,367	228,225	239,007	243,298	284,552
Cash Crops	0%	-	-	-	-	-	-
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	4%	11,466	28,938	25,662	-	-	13,213
Other Farm Revenue †	0%	1,244	1,201	1,201	1,200	1,202	1,209
Total Revenue	100%	433,572	321,506	255,088	240,207	244,499	298,975
Change in Inventory		-	-	-	-	-	-
Expenses		2023	2022	2021	2020	2019	5-yr. avg.
Depreciation		30,830	27,166	26,094	25,208	23,915	26,643
Machinery		26,140	22,726	21,943	21,211	19,986	22,401
Buildings		4,690	4,440	4,152	3,997	3,929	4,242
Quota econ. Accounting		-	-	-	-	-	-
Overhead costs		122,994	119,071	108,051	102,766	101,426	110,862
Land improvement		14,284	13,184	11,898	11,461	11,431	12,452
Machinery Maintenance		28,177	26,414	25,025	24,617	24,191	25,685
Buildings Maintenance		7,900	7,182	6,158	5,793	5,876	6,582
Contract labour		26,248	27,111	25,739	24,830	24,089	25,603
Diesel, Gasoline, Natural Gas		6,308	7,377	5,635	4,548	5,132	5,800
Electricity		9,402	6,503	3,947	2,902	2,839	5,119
Water		-	-	-	-	-	-
Farm insurance		9,778	10,100	9,589	9,250	8,974	9,538
Disability and accident insurance		3,727	3,850	3,655	3,526	3,421	3,636
Farm taxes and duties		4,647	4,800	4,557	4,396	4,265	4,533
Advisor costs		2,662	2,750	2,611	2,519	2,443	2,597
Accountant & legal fees		4,405	4,550	4,320	4,167	4,043	4,297
Phone & utilities		3,481	3,350	3,137	3,035	3,013	3,203
Other overhead costs		1,974	1,900	1,779	1,722	1,709	1,817
Wages, rent and interest payments		28,836	29,499	27,362	22,423	21,769	25,978
Paid Labour		-	-	-	-	-	-
Total land rents		28,030	27,256	26,173	21,961	21,369	24,958
Total Interest on debt		805	2,243	1,189	463	400	1,020
Cow-Calf		59,620	58,302	70,620	52,562	61,432	60,507
Animal purchases		17,700	17,700	17,700	17,700	17,700	17,700
Purchased feed		17,080	15,488	29,391	12,262	21,383	19,121
Other fixed and var. costs *		24,840	25,114	23,528	22,599	22,349	23,686
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		51,568	53,320	49,033	46,501	46,454	49,375
Seed		8,258	7,240	6,853	6,562	6,983	7,179
Fertilizer		15,836	17,204	14,970	13,719	14,036	15,153
Herbicide		3,198	3,976	3,601	3,439	3,285	3,500
Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour		21,777	22,494	21,355	20,601	19,986	21,243
Fuel costs (crop & forage)		-	-	-	-	-	-
Other crop and forage		2,500	2,406	2,254	2,180	2,164	2,301
Total Farm Costs (excludes unpaid labour)		293,849	287,358	281,160	249,461	254,997	273,365
Cash Costs (Total Farm Costs - Depreciation)		263,018	260,192	255,066	224,252	231,082	246,722
Depreciation & Opportunity Costs (including unpaid labour)		106,059	102,394	101,323	100,437	99,143	101,871
Total Economic Costs (cash, depr, opportunity)		369,077	362,587	356,388	324,689	330,225	348,593
Profits		2023	2022	2021	2020	2019	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		139,724	34,148	(26,072)	(9,253)	(10,498)	25,610
Net Cash Farm Income (excludes depreciation)		170,511	61,313	21	15,955	13,416	52,243

† 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*	273	273	273	273	273	273
Average male and female calf price (\$/head)	1,834	1,259	979	1,035	1,049	1,231
REVENUE						
Cow Calf	1,584	1,173	930	875	891	1,091
Cull animals and slaughter receipts	132	97	82	82	86	96
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,410	971	754	794	805	947
Government payments	42.0	106.0	94.0	-	-	48.4
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,584	1,173	930	875	891	1,091
VARIABLE COSTS						
Animal purchases	64.8	64.8	64.8	64.8	64.8	65
Feed (purchase feed, fertiliser, seed, pesticides)	224.0	217.9	252.6	181.8	217.2	219
Machinery (maintenance, depreciation, contractor)	374.0	360.6	343.2	333.0	322.0	347
Fuel, energy, lubricants, water	57.4	50.6	34.9	27.2	29.1	40
Vet & medicine	41.9	43.3	41.1	39.6	38.4	41
Other inputs cow calf enterprise	94.8	94.5	88.3	84.9	84.3	89
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	276.0	284.7	270.0	260.5	252.8	269
Total Variable Costs	1,133.0	1,116.5	1,094.9	991.8	1,008.6	1,069
CAPITAL COSTS						
Insurance, taxes	66.4	68.5	65.0	62.7	60.8	65
Buildings (maintenance, depreciation)	46.0	42.4	37.6	35.7	35.7	39
Land Cost	-	-	-	-	-	-
Rented Land	102.7	99.8	95.9	80.4	78.3	91
Own Land	137.4	135.0	131.7	106.0	104.1	123
Capital Costs	-	-	-	-	-	-
Liabilities	2.9	8.2	4.3	1.7	1.5	4
Own capital	64.2	63.3	63.3	60.4	57.8	62
Total Capital Costs	419.5	417.2	397.7	346.8	338.2	384
COSTS						
Cash Costs	962.3	951.5	932.5	819.8	844.9	902
Depreciation Costs	112.6	99.1	95.1	91.9	87.2	97
Opportunity Costs	477.6	483.0	465.0	426.9	414.7	453
Total Production Costs	1,552.5	1,533.7	1,492.6	1,338.6	1,346.8	1,453
Profits						
Short-term profit (cash costs)	621.3	221.7	(2.5)	55.6	46.3	188
Medium-term profit (cash + depreciation)	508.7	122.6	(97.6)	(36.2)	(40.9)	91
Long-term profit (cash + depreciation + opportunity)	31.1	(360.4)	(562.6)	(463.1)	(455.6)	(362)

*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)	2023	2022	2021	2020	2019	5 yr. avg.
Pounds Weaned	102,238	102,238	102,238	102,238	102,238	102,238
Average male and female weaning weight (lbs)	491	491	491	491	491	
Average male and female calf price at weaning (\$/lb)	3.73	2.56	1.99	2.11	2.13	2.51
REVENUE						
Cow Calf Operation	4.23	3.13	2.48	2.34	2.38	2.91
Cull animals and slaughter receipts	0.35	0.26	0.22	0.22	0.23	0.26
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	3.76	2.59	2.01	2.12	2.15	2.53
Government payments	0.11	0.28	0.25	-	-	0.13
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	4.23	3.13	2.48	2.34	2.38	2.91
VARIABLE COSTS						
Animal purchases	0.17	0.17	0.17	0.17	0.17	0.17
Feed (purchase feed, fertiliser, seed, pesticides)	0.60	0.58	0.67	0.49	0.58	0.58
Machinery (maintenance, depreciation, contractor)	1.00	0.96	0.92	0.89	0.86	0.93
Fuel, energy, lubricants, water	0.15	0.14	0.09	0.07	0.08	0.11
Vet & medicine	0.11	0.12	0.11	0.11	0.10	0.11
Other inputs cow calf enterprise	0.25	0.25	0.24	0.23	0.23	0.24
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	0.74	0.76	0.72	0.70	0.67	0.72
Total Variable Costs	3.0	3.0	2.9	2.6	2.7	2.9
CAPITAL COSTS						
Insurance, taxes	0.18	0.18	0.17	0.17	0.16	0.17
Buildings (maintenance, depreciation)	0.12	0.11	0.10	0.10	0.10	0.11
Land Cost						
Rented Land	0.27	0.27	0.26	0.21	0.21	0.24
Owned Land	0.37	0.36	0.35	0.28	0.28	0.33
Capital Costs						
Liabilities	0.01	0.02	0.01	0.00	0.00	0.01
Own capital	0.17	0.17	0.17	0.16	0.15	0.16
Total Capital Costs	1.1	1.1	1.1	0.9	0.9	1.0
COSTS						
Cash Costs	2.57	2.54	2.49	2.19	2.26	2.41
Depreciation Costs	0.30	0.26	0.25	0.25	0.23	0.26
Opportunity Costs	1.28	1.29	1.24	1.14	1.11	1.21
Total Production Costs	4.15	4.10	3.99	3.57	3.60	3.88
Profits						
Short-term profit (cash costs)	1.66	0.59	(0.01)	0.15	0.12	0.50
Medium-term profit (cash + depreciation)	1.36	0.33	(0.26)	(0.10)	(0.11)	0.24
Long-term profit (cash + depreciation + opportunity)	0.08	(0.96)	(1.50)	(1.24)	(1.22)	(0.97)

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 concerning 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

Open 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.

