

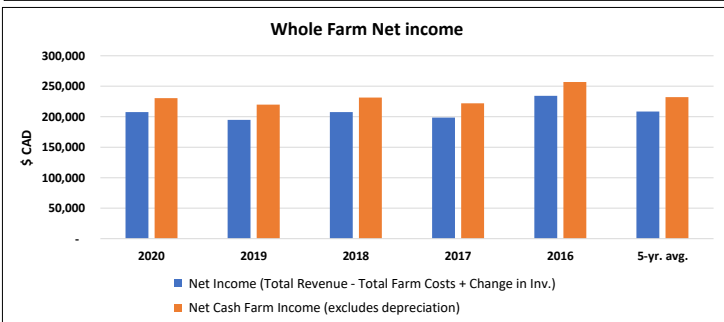
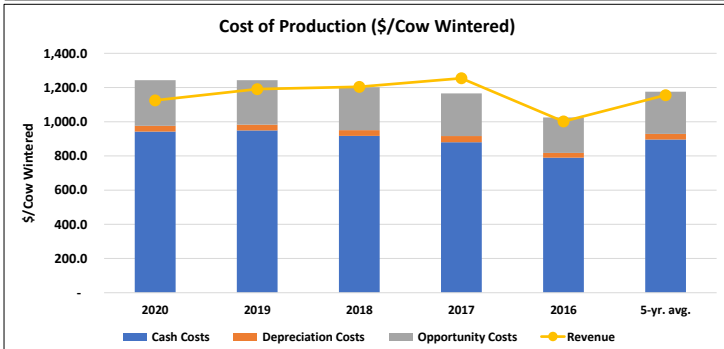
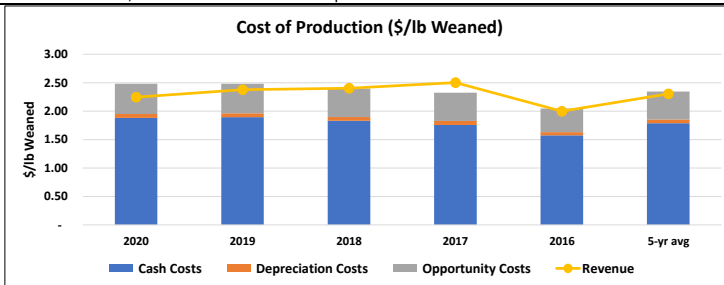


Farm Characteristics	CA-SK6
Farm Description	A mixed cow-calf and cash crop operation utilizing predominantly homegrown feed in one of the most productive agricultural regions on the prairies.
Winter Feeding Ration (lbs/cow/day as fed)	186 days of predominantly cereal silage (35 lb)* and alfalfa hay (14 lb) fed TMR with custom mineral mix (100 g), with barley grain (4.5 lb) included for 90 days. *Total delivery dependent on dry matter of main silage ingredient (corn, barley, oat)
Retained Ownership/Replacement Ration (lb/head/day as fed)	186 days of predominantly cereal silage (24 lb)*, alfalfa hay (10 lb) and barley grain (4 lb) fed TMR with custom mineral mix (65 g). *Total delivery dependent on dry matter of main silage ingredient (corn, barley, oat)
Disclaimer:	This benchmark is based on 3 farms of data; outliers were excluded as required

Environment	
Average Annual Temperature	1.5°C
Average Annual Precipitation (mm)	400–500 mm
Ecoregion	Aspen Parkland
Relief	Undulating to kettled
Stocking Rate (Animal Unit days per acre)	28
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Hay Yield (tonnes/acre)	1.77
Grassland Acres (owned+rented)	1250
Crop Acres (includes hay) (owned+rented)	2268
Bush and other acres	0

Physical Performance Indicators	
	Angus, Simmental, Charolais
Breed	Charolais
Cow:Bull Ratio	24:1
Bull Culling Rate (%)	20%
Mature Cow Weight (lb)	1,480
Heifer Retention for a steady herd (%)	15%
Cow Death Loss (%)	1.3%
Cow Culling Rate (%)	13.5%
Calves alive after 24hr/100 Cows exposed	92%
Calf Death Loss (%) 24 hr to weaning	3.0%
Calves weaned per 100 cows exposed	89
Total Liveweight Sold per Cow (lb)	730
Weaning Weight (lb)	708
205 day adjusted Weaning Weight (lb)	688
Average Daily Gain pre-weaning (lb)	2.95
Weaning Weight as % of Cow Weight	48%

Production System	
Herd size	135
Days on field feeding (e.g. swath grazing)	0
Days supplemented on pasture	0
Days on full winter feed	186
Calving Start date	February 05
Weaning date	October 05
Sale date	October 15
Retained ownership	Replacements
% of feed purchased	0.5%
% of land in annual crops	64%
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	135		Beef Animals Sold from Retained Ownership		N/A		
Paid Labour (hours)	560						
Unpaid Labour (hours)	580						
Average wages - paid and unpaid (\$/hr)	19.31						
Revenue		2020	2019	2018	2017	2016	5-yr. avg.
Market Revenue	5-yr avg	847,499	859,500	845,584	803,030	812,748	833,672
Cow-Calf	18%	151,880	160,755	162,540	169,288	135,208	155,934
Cash Crops	80%	695,619	698,745	683,044	633,742	677,540	677,738
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue †	1%	11,001	11,000	11,008	11,005	11,007	11,004
Total Revenue	100%	858,500	870,500	856,592	814,035	823,755	844,676
Change in Inventory		2,638	-	-	-	-	528
Expenses		2020	2019	2018	2017	2016	5-yr. avg.
Depreciation		25,575	24,927	23,895	23,278	22,847	24,104
Machinery		13,042	12,607	11,879	11,505	11,269	12,060
Buildings		12,533	12,320	12,016	11,773	11,578	12,044
Overhead costs		83,823	88,591	87,831	80,400	77,356	83,600
Land improvement		4,218	4,234	4,171	4,092	3,993	4,142
Machinery Maintenance		14,234	14,167	13,938	13,855	13,612	13,961
Buildings Maintenance		2,601	2,634	2,598	2,515	2,438	2,557
Contract labour		7,931	7,694	7,359	7,045	6,914	7,389
Diesel, Gasoline, Natural Gas		15,813	21,872	23,486	19,279	16,950	19,480
Electricity		3,985	3,899	3,574	2,219	2,625	3,260
Water		-	-	-	-	-	-
Farm insurance		7,160	6,946	6,643	6,360	6,242	6,670
Disability and accident insurance		1,325	1,285	1,229	1,177	1,155	1,234
Farm taxes and duties		7,224	7,009	6,703	6,417	6,298	6,730
Advisor costs		4,397	4,265	4,079	3,905	3,833	4,096
Accountant & legal fees		10,725	10,405	9,951	9,527	9,350	9,992
Phone & utilities		3,686	3,659	3,589	3,508	3,454	3,579
Other overhead costs		525	521	511	500	492	510
Wages, rent and interest payments		157,029	150,021	133,461	123,888	110,052	134,890
Paid Labour		26,912	26,109	24,970	23,907	23,462	25,072
Unpaid Labour		10,846	11,162	11,470	12,570	9,921	11,194
Total land rents		79,922	77,151	74,156	70,828	61,495	72,711
Total Interest on debt		50,195	46,761	34,335	29,153	25,095	37,108
Cow-Calf		31,719	30,382	29,640	28,382	28,010	29,627
Animal purchases		4,733	4,733	4,733	4,733	4,733	4,733
Purchased feed		7,990	6,698	6,768	6,807	6,895	7,032
Other fixed and var. costs *		18,995	18,951	18,139	16,842	16,383	17,862
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		355,335	381,667	374,277	359,441	351,312	364,406
Seed		93,224	99,211	92,161	91,700	87,634	92,786
Fertilizer		125,014	129,598	126,192	124,736	128,066	126,721
Herbicide		40,544	38,720	37,962	37,280	36,780	38,257
Fungicide & Insecticide		27,763	27,763	27,763	27,763	27,763	27,763
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		41,895	59,677	64,011	52,363	45,862	52,762
Other crop and forage		26,895	26,699	26,188	25,599	25,207	26,118
Total Farm Costs (excludes unpaid labour)		653,480	675,589	649,105	615,388	589,577	636,628
Cash Costs (Total Farm Costs - Depreciation)		627,905	650,661	625,210	592,110	566,730	612,523
Depreciation & Opportunity Costs (including unpaid labour)		36,421	36,090	35,365	35,848	32,768	35,298
Total Economic Costs (cash, depr, opportunity)		664,326	686,751	660,574	627,958	599,499	647,822
Profits		2020	2019	2018	2017	2016	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		207,657	194,912	207,487	198,647	234,178	208,576
Net Cash Farm Income (excludes depreciation)		230,594	219,839	231,374	221,919	257,018	232,149

† 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 *	135	135	135	135	135	135
Average male and female calf price (\$/head)	1,319	1,386	1,416	1,463	1,106	1,338
REVENUE	-	-	-	-	-	-
Cow Calf	1,125	1,191	1,204	1,254	1,002	1,155
Cull animals and slaughter receipts	178	197	188	205	206	195
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	947	994	1,016	1,049	796	960
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,125	1,191	1,204	1,254	1,002	1,155
VARIABLE COSTS	-	-	-	-	-	-
Animal purchases	35.1	35.1	35.1	35.1	35.1	35
Feed (purchase feed, fertiliser, seed, pesticides)	225.8	219.3	214.9	213.1	213.9	217
Machinery (maintenance, depreciation, contractor)	46.8	47.1	46.6	49.9	38.7	46
Fuel, energy, lubricants, water	71.4	97.4	104.3	88.2	72.7	87
Vet & medicine	30.3	26.2	23.9	22.7	21.9	25
Other inputs cow calf enterprise	121.2	125.3	121.7	115.1	106.6	118
Labour						
Paid Labour	35.8	35.7	35.1	36.8	28.5	34
Unpaid Labour	124.8	124.6	122.4	128.5	99.5	120
Total Variable Costs	691.2	710.7	704.1	689.4	616.8	682
CAPITAL COSTS	-	-	-	-	-	-
Insurance, taxes	46.2	45.2	43.5	42.6	39.5	43
Buildings (maintenance, depreciation)	20.1	20.5	20.5	22.0	17.0	20
Land Cost	-	-	-	-	-	-
Rented Land	277.0	267.4	257.0	245.5	213.1	252
Own Land	141.7	135.3	128.4	120.7	107.7	127
Capital Costs	-	-	-	-	-	-
Liabilities	66.7	64.0	48.3	44.9	30.5	51
Own capital	0.0	0.0	0.0	0.0	0.0	0
Total Capital Costs	551.7	532.2	497.6	475.7	407.8	493
COSTS						
Cash Costs	942.4	949.0	917.3	880.1	789.7	896
Depreciation Costs	34.0	34.1	33.6	35.9	27.8	33
Opportunity Costs	266.5	259.9	250.8	249.1	207.2	247
Total Production Costs	1,242.9	1,242.9	1,201.7	1,165.1	1,024.7	1,175
Profits						
Short-term profit (cash costs)	182.6	241.8	286.7	373.9	211.9	259
Medium-term profit (cash + depreciation)	148.6	207.7	253.1	338.0	184.1	226
Long-term profit (cash + depreciation + opportunity)	(117.8)	(52.2)	2.3	88.9	(23.1)	(20)

*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

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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	67,648	67,648	67,648	67,648	67,648	67,648
Average male and female weaning weight (lbs)	708	708	708	708	708	
Average male and female calf price at weaning (\$/lb)	1.86	1.96	2.00	2.07	1.56	1.89
REVENUE						
Cow Calf Operation	2.25	2.38	2.40	2.50	2.00	2.31
Cull animals and slaughter receipts	0.36	0.39	0.38	0.41	0.41	0.39
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1.89	1.98	2.03	2.09	1.59	1.92
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	2.25	2.38	2.40	2.50	2.00	2.31
VARIABLE COSTS						
Animal purchases	0.07	0.07	0.07	0.07	0.07	0.07
Feed (purchase feed, fertiliser, seed, pesticides)	0.45	0.44	0.43	0.43	0.43	0.43
Machinery (maintenance, depreciation, contractor)	0.09	0.09	0.09	0.10	0.08	0.09
Fuel, energy, lubricants, water	0.14	0.19	0.21	0.18	0.15	0.17
Vet & medicine	0.06	0.05	0.05	0.05	0.04	0.05
Other inputs cow calf enterprise	0.24	0.25	0.24	0.23	0.21	0.24
Labour						
Paid Labour	0.07	0.07	0.07	0.07	0.06	0.07
Unpaid Labour	0.25	0.25	0.24	0.26	0.20	0.24
Total Variable Costs	1.4	1.4	1.4	1.4	1.2	1.4
CAPITAL COSTS						
Insurance, taxes	0.09	0.09	0.09	0.09	0.08	0.09
Buildings (maintenance, depreciation)	0.04	0.04	0.04	0.04	0.03	0.04
Land Cost						
Rented Land	0.55	0.53	0.51	0.49	0.43	0.50
Owned Land	0.28	0.27	0.26	0.24	0.21	0.25
Capital Costs						
Liabilities	0.13	0.13	0.10	0.09	0.06	0.10
Own capital	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Costs	1.1	1.1	1.0	0.9	0.8	1.0
COSTS						
Cash Costs	1.88	1.89	1.83	1.76	1.58	1.79
Depreciation Costs	0.07	0.07	0.07	0.07	0.06	0.07
Opportunity Costs	0.53	0.52	0.50	0.50	0.41	0.49
Total Production Costs	2.48	2.48	2.40	2.33	2.04	2.35
Profits	2020	2019	2018	2017	2016	5-yr. avg.
Short-term profit (cash costs)	0.36	0.48	0.57	0.75	0.42	0.52
Medium-term profit (cash + depreciation)	0.30	0.41	0.51	0.67	0.37	0.45
Long-term profit (cash + depreciation + opportunity)	(0.24)	(0.10)	0.00	0.18	(0.05)	(0.04)

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