

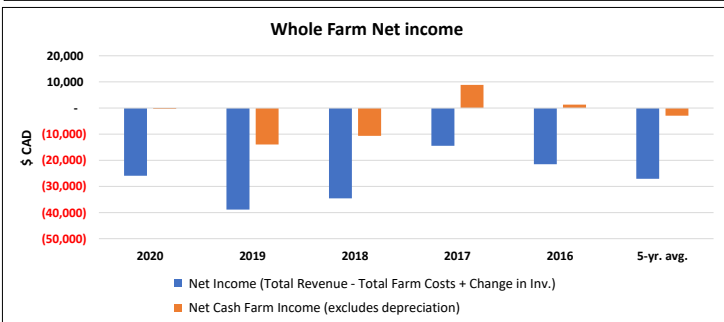
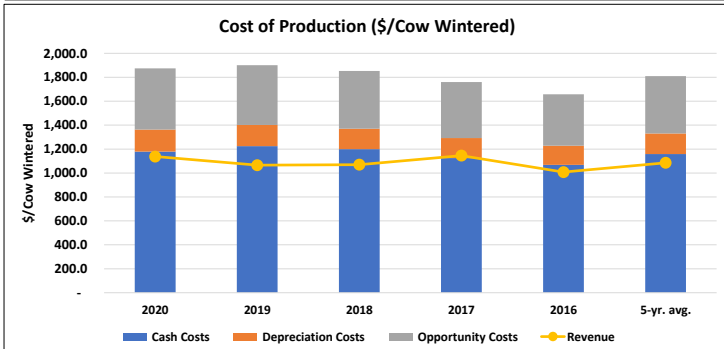
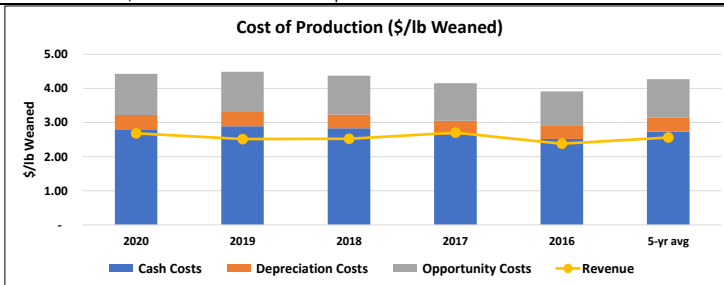


Farm Characteristics	CA-SK5
Farm Description	A mixed cow-calf and cash crop operation utilizing predominantly purchased feed (from grain enterprise) in a region dominated by spear and wheat grasses.
Winter Feeding Ration (lbs/cow/day as fed)	60 days of stubble, aftermath grazing followed by 140 days of predominantly cereal silage (19 lb), hay (10 lb), straw and chaff (8 lb), cereal screenings (oat hulls or barley) (5 lb), and camelina meal (5 lb) delivered as a pre-mix on full winter feed days with loose mineral
Retained Ownership/Replacement Ration (lb/head/day as fed)	140 days of cereal silage (14 lb), alfalfa hay (5 lb), cereal screenings (oats hulls or barley) (3 lb), camelina meal (1 lb), straw or chaf or meal (when bedded, confined (90 days)) (3 lb) with mineral (54 g) and salt (45 g)
Disclaimer:	This benchmark is based on 3 farms of data; outliers were excluded as required

Environment	
Average Annual Temperature	2.5°C
Average Annual Precipitation (mm)	350–400 mm
Ecoregion	Moist mixed grassland
Relief	Hummocky to kettled
Stocking Rate (Animal Unit days per acre)	18
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Hay Yield (tonnes/acre)	1.25
Grassland Acres (owned+rented)	1995
Crop Acres (includes hay) (owned+rented)	198
Bush and other acres	0

Physical Performance Indicators	
	Angus, Simmental, Charolais
Breed	
Cow:Bull Ratio	24:1
Bull Culling Rate (%)	20%
Mature Cow Weight (lb)	1,300
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)	680
Weaning Weight (lb)	611
205 day adjusted Weaning Weight (lb)	626
Average Daily Gain pre-weaning (lb)	2.63
Weaning Weight as % of Cow Weight	47%

Production System	
Herd size	135
Days on field feeding (e.g. swath grazing)	60
Days supplemented on pasture	0
Days on full winter feed	100
Calving Start date	April 20
Weaning date	November 05
Sale date	November 05
Retained ownership	Replacements
% of feed purchased	29.8%
% of land in annual crops	9%
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	Start-up						
Herd Size	135		Beef Animals Sold from Retained Ownership		N/A		
Paid Labour (hours)	1,802						
Unpaid Labour (hours)	1,529						
Average wages - paid and unpaid (\$/hr)	23.03						
Revenue		2020	2019	2018	2017	2016	5-yr. avg.
Market Revenue	5-yr avg	160,040	155,493	154,739	162,383	149,544	156,440
Cow-Calf	93%	153,592	143,817	144,455	154,627	136,054	146,509
Cash Crops	6%	6,448	11,677	10,283	7,756	13,490	9,931
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue †	1%	1,667	1,667	1,667	1,667	1,667	1,667
Total Revenue	100%	161,707	157,160	156,405	164,050	151,211	158,107
Change in Inventory		-	-	-	-	-	-
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		44,783	48,088	47,654	42,662	41,029	44,843
Land improvement		4,250	4,267	4,203	4,123	4,024	4,174
Machinery Maintenance		1,423	1,417	1,394	1,385	1,361	1,396
Buildings Maintenance		2,085	2,112	2,083	2,016	1,954	2,050
Contract labour		225	218	209	200	196	210
Diesel, Gasoline, Natural Gas		9,729	13,669	14,547	11,900	10,423	12,053
Electricity		3,985	3,899	3,574	2,219	2,625	3,260
Water		-	-	-	-	-	-
Farm insurance		4,104	3,982	3,808	3,646	3,578	3,823
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		2,658	2,579	2,466	2,361	2,317	2,476
Advisor costs		1,992	1,933	1,848	1,770	1,737	1,856
Accountant & legal fees		9,450	9,168	8,768	8,395	8,239	8,804
Phone & utilities		3,686	3,659	3,589	3,508	3,454	3,579
Other overhead costs		1,196	1,188	1,165	1,139	1,121	1,162
Wages, rent and interest payments		62,951	68,237	66,541	62,322	59,291	63,869
Paid Labour		33,458	32,459	31,043	29,721	29,169	31,170
Unpaid Labour		35,215	35,215	35,215	35,215	35,215	35,215
Total land rents		7,368	7,327	7,283	7,235	5,858	7,014
Total Interest on debt		22,126	28,450	28,215	25,367	24,264	25,684
Cow-Calf		35,582	34,718	33,298	31,402	31,259	33,252
Animal purchases		4,733	4,733	4,733	4,733	4,733	4,733
Purchased feed		11,853	11,034	10,426	9,827	10,143	10,657
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		18,747	20,050	19,583	18,817	18,311	19,102
Seed		5,991	6,375	5,922	5,893	5,631	5,962
Fertilizer		5,412	5,610	5,463	5,400	5,544	5,486
Herbicide		3,925	3,748	3,675	3,609	3,560	3,703
Fungicide & Insecticide		556	556	556	556	556	556
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		2,125	3,027	3,247	2,656	2,327	2,677
Other crop and forage		739	734	720	703	693	718
Total Farm Costs (excludes unpaid labour)		187,638	196,021	190,970	178,480	172,736	185,169
Cash Costs (Total Farm Costs - Depreciation)		162,063	171,093	167,075	155,203	149,889	161,065
Depreciation & Opportunity Costs (including unpaid labour)		60,791	60,143	59,110	58,493	58,062	59,320
Total Economic Costs (cash, depr, opportunity)		222,854	231,236	226,186	213,696	207,952	220,385
Profits		2020	2019	2018	2017	2016	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		(25,932)	(38,861)	(34,565)	(14,431)	(21,525)	(27,063)
Net Cash Farm Income (excludes depreciation)		(357)	(13,933)	(10,670)	8,847	1,322	(2,958)

† 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)	1,276	1,178	1,162	1,273	1,020	1,182
REVENUE	-	-	-	-	-	-
Cow Calf	1,138	1,065	1,070	1,145	1,008	1,085
Cull animals and slaughter receipts	248	242	256	255	292	259
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	889	824	814	890	715	826
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,138	1,065	1,070	1,145	1,008	1,085
VARIABLE COSTS	-	-	-	-	-	-
Animal purchases	35.1	35.1	35.1	35.1	35.1	35
Feed (purchase feed, fertiliser, seed, pesticides)	242.4	239.4	229.4	223.0	223.3	232
Machinery (maintenance, depreciation, contractor)	103.4	96.5	92.2	91.4	85.5	94
Fuel, energy, lubricants, water	117.3	146.5	153.1	123.3	109.2	130
Vet & medicine	30.3	26.2	23.9	22.7	21.9	25
Other inputs cow calf enterprise	210.3	207.6	201.4	191.7	182.8	199
Labour						
Paid Labour	247.8	240.4	229.9	220.2	216.1	231
Unpaid Labour	311.4	302.1	288.9	276.6	271.5	290
Total Variable Costs	1,298.0	1,294.0	1,253.9	1,183.9	1,145.4	1,235
CAPITAL COSTS	-	-	-	-	-	-
Insurance, taxes	58.5	55.7	53.5	51.7	49.6	54
Buildings (maintenance, depreciation)	108.3	106.9	104.4	102.1	100.2	104
Land Cost	-	-	-	-	-	-
Rented Land	54.6	54.3	54.0	53.6	43.4	52
Own Land	199.9	197.2	194.3	191.1	157.6	188
Capital Costs	-	-	-	-	-	-
Liabilities	155.7	192.9	193.0	177.1	161.7	176
Own capital	0.0	0.0	0.0	0.0	0.0	0
Total Capital Costs	576.9	607.0	599.2	575.7	512.6	574
COSTS						
Cash Costs	1,178.9	1,224.9	1,199.6	1,124.3	1,068.0	1,159
Depreciation Costs	184.6	176.7	170.3	167.5	160.9	172
Opportunity Costs	511.4	499.4	483.3	467.7	429.1	478
Total Production Costs	1,874.9	1,901.0	1,853.2	1,759.6	1,657.9	1,809
Profits						
Short-term profit (cash costs)	(41.2)	(159.5)	(129.6)	21.1	(60.2)	(74)
Medium-term profit (cash + depreciation)	(225.8)	(336.3)	(299.8)	(146.5)	(221.0)	(246)
Long-term profit (cash + depreciation + opportunity)	(737.2)	(835.6)	(783.1)	(614.2)	(650.1)	(724)

*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\$.

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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	57,196	57,196	57,196	57,196	57,196	57,196
Average male and female weaning weight (lbs)	611	611	611	611	611	
Average male and female calf price at weaning (\$/lb)	2.09	1.93	1.90	2.08	1.67	1.94
REVENUE						
Cow Calf Operation	2.69	2.51	2.53	2.70	2.38	2.56
Cull animals and slaughter receipts	0.59	0.57	0.61	0.60	0.69	0.61
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	2.10	1.94	1.92	2.10	1.69	1.95
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	2.69	2.51	2.53	2.70	2.38	2.56
VARIABLE COSTS						
Animal purchases	0.08	0.08	0.08	0.08	0.08	0.08
Feed (purchase feed, fertiliser, seed, pesticides)	0.57	0.57	0.54	0.53	0.53	0.55
Machinery (maintenance, depreciation, contractor)	0.24	0.23	0.22	0.22	0.20	0.22
Fuel, energy, lubricants, water	0.28	0.35	0.36	0.29	0.26	0.31
Vet & medicine	0.07	0.06	0.06	0.05	0.05	0.06
Other inputs cow calf enterprise	0.50	0.49	0.48	0.45	0.43	0.47
Labour						
Paid Labour	0.58	0.57	0.54	0.52	0.51	0.54
Unpaid Labour	0.74	0.71	0.68	0.65	0.64	0.68
Total Variable Costs	3.1	3.1	3.0	2.8	2.7	2.9
CAPITAL COSTS						
Insurance, taxes	0.14	0.13	0.13	0.12	0.12	0.13
Buildings (maintenance, depreciation)	0.26	0.25	0.25	0.24	0.24	0.25
Land Cost						
Rented Land	0.13	0.13	0.13	0.13	0.10	0.12
Owned Land	0.47	0.47	0.46	0.45	0.37	0.44
Capital Costs						
Liabilities	0.37	0.46	0.46	0.42	0.38	0.42
Own capital	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Costs	1.4	1.4	1.4	1.4	1.2	1.4
COSTS						
Cash Costs	2.78	2.89	2.83	2.65	2.52	2.74
Depreciation Costs	0.44	0.42	0.40	0.40	0.38	0.41
Opportunity Costs	1.21	1.18	1.14	1.10	1.01	1.13
Total Production Costs	4.43	4.49	4.37	4.15	3.91	4.27
Profits	2020	2019	2018	2017	2016	5-yr. avg.
Short-term profit (cash costs)	(0.10)	(0.38)	(0.31)	0.05	(0.14)	(0.17)
Medium-term profit (cash + depreciation)	(0.53)	(0.79)	(0.71)	(0.35)	(0.52)	(0.58)
Long-term profit (cash + depreciation + opportunity)	(1.74)	(1.97)	(1.85)	(1.45)	(1.53)	(1.71)

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