

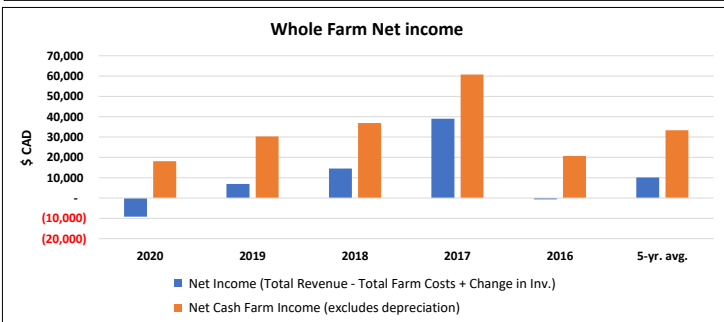
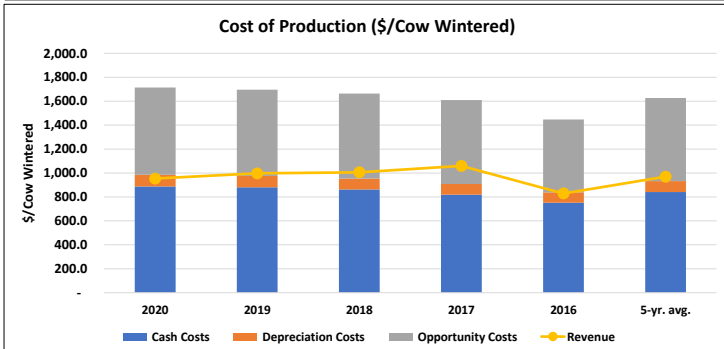
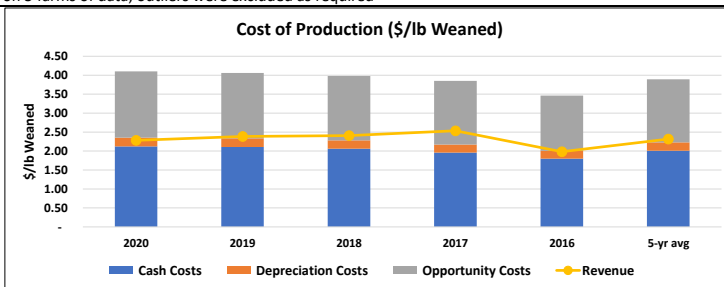


Farm Characteristics	CA-SK3
Farm Description	A cow-calf operation producing homegrown feed located in a semi-arid shortgrass region of SW Saskatchewan with high proportion of native pasture.
Winter Feeding Ration (lbs/cow/day as fed)	30 days (Nov-Dec) half ration of grass hay (15 lb) fed with field grazed cereal crop residue, followed by 150 days of hay (31 lb) combined with lentil, barley or malt pellets (3 lb), 210 days of free choice mineral (100 g) and year round salt (50 g).
Retained Ownership/Replacement Ration (lb/head/day as fed)	150 days of hay (16 lb) combined with lentil, barley or malt pellets (4 lb), and 210 days of mineral (60 g), and year round salt (30 g).
Disclaimer:	This benchmark is based on 5 farms of data; outliers were excluded as required

Environment	
Average Annual Temperature	3.5°C
Average Annual Precipitation (mm)	250 - 350 mm
Ecoregion	Mixed grassland
Relief	Undulating
Stocking Rate (Animal Unit days per acre)	8
Fertilize Hay (yes/no)	No
Fertilize Pasture (yes/no)	No
Hay Yield (tonnes/acre)	1.24
Grassland Acres (owned+rented)	8167
Crop Acres (includes hay) (owned+rented)	556
Bush and other acres	0

Physical Performance Indicators	
Breed	Angus
Cow:Bull Ratio	27:1
Bull Culling Rate (%)	17%
Mature Cow Weight (lb)	1,300
Heifer Retention for a steady herd (%)	13%
Cow Death Loss (%)	1.3%
Cow Culling Rate (%)	12.0%
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)	589
Weaning Weight (lb)	558
205 day adjusted Weaning Weight (lb)	561
Average Daily Gain pre-weaning (lb)	2.32
Weaning Weight as % of Cow Weight	43%

Production System	
Herd size	245
Days on field feeding (e.g. swath grazing)	30
Days supplemented on pasture	0
Days on full winter feed	150
Calving Start date	March 25
Weaning date	October 15
Sale date	October 20
Retained ownership	Replacements
% of feed purchased	11.0%
% of land in annual crops	6%
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	245		Beef Animals Sold from Retained Ownership		N/A		
Paid Labour (hours)	-						
Unpaid Labour (hours)	2,712						
Average wages - paid and unpaid (\$/hr)	23.33						
Revenue		2020	2019	2018	2017	2016	5-yr. avg.
Market Revenue	5-yr avg	233,726	244,282	246,431	259,609	203,122	237,434
Cow-Calf	99%	233,726	244,282	246,431	259,609	203,122	237,434
Cash Crops	0%	-	-	-	-	-	-
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	0%	-	-	-	-	-	-
Other Farm Revenue †	1%	2,480	2,480	2,480	2,480	2,480	2,480
Total Revenue	100%	236,206	246,762	248,910	262,088	205,601	239,913
Change in Inventory		(3,261)	-	-	-	-	(652)
Expenses		2020	2019	2018	2017	2016	5-yr. avg.
Depreciation		24,016	23,381	22,360	21,765	21,357	22,576
Machinery		13,879	13,416	12,641	12,243	11,992	12,834
Buildings		10,138	9,965	9,719	9,523	9,364	9,742
Overhead costs		66,065	69,046	68,063	62,001	60,294	65,094
Land improvement		7,944	7,976	7,857	7,707	7,521	7,801
Machinery Maintenance		4,318	4,297	4,228	4,203	4,129	4,235
Buildings Maintenance		12,071	12,225	12,057	11,673	11,312	11,868
Contract labour		2,891	2,804	2,682	2,568	2,520	2,693
Diesel, Gasoline, Natural Gas		8,491	12,095	12,974	10,613	9,295	10,694
Electricity		6,472	6,333	5,805	3,604	4,264	5,295
Water		-	-	-	-	-	-
Farm insurance		7,808	7,575	7,244	6,936	6,807	7,274
Disability and accident insurance		2,951	2,863	2,738	2,621	2,573	2,749
Farm taxes and duties		5,332	5,172	4,947	4,736	4,648	4,967
Advisor costs		-	-	-	-	-	-
Accountant & legal fees		1,150	1,116	1,067	1,022	1,003	1,071
Phone & utilities		6,384	6,338	6,216	6,077	5,983	6,200
Other overhead costs		255	253	248	243	239	248
Wages, rent and interest payments		79,847	80,892	78,989	75,801	61,918	75,489
Paid Labour		-	-	-	-	-	-
Unpaid Labour		63,265	63,304	63,309	63,341	63,175	63,279
Total land rents		61,091	60,866	60,621	60,350	48,674	58,320
Total Interest on debt		18,755	20,027	18,368	15,452	13,244	17,169
Cow-Calf		55,558	50,346	49,447	48,539	47,983	50,374
Animal purchases		8,700	8,700	8,700	8,700	8,700	8,700
Purchased feed		26,962	22,497	22,663	22,908	22,756	23,557
Other fixed and var. costs *		19,896	19,149	18,083	16,931	16,527	18,117
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		16,592	16,139	15,530	14,985	14,714	15,592
Seed		463	493	458	456	436	461
Fertilizer		-	-	-	-	-	-
Herbicide		2,780	2,655	2,603	2,556	2,522	2,623
Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour		11,536	11,192	10,704	10,248	10,058	10,748
Fuel costs (crop & forage)		-	-	-	-	-	-
Other crop and forage		1,812	1,799	1,765	1,725	1,699	1,760
Total Farm Costs (excludes unpaid labour)		242,078	239,805	234,388	223,091	206,265	229,126
Cash Costs (Total Farm Costs - Depreciation)		218,062	216,424	212,028	201,326	184,908	206,550
Depreciation & Opportunity Costs (including unpaid labour)		87,282	86,685	85,669	85,106	84,532	85,855
Total Economic Costs (cash, depr, opportunity)		305,344	303,109	297,698	286,433	269,440	292,405
Profits		2020	2019	2018	2017	2016	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		(9,134)	6,957	14,522	38,997	(664)	10,136
Net Cash Farm Income (excludes depreciation)		18,143	30,338	36,882	60,762	20,693	33,364

† 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 *	245	245	245	245	245	245
Average male and female calf price (\$/head)	1,087	1,125	1,142	1,195	902	1,090
REVENUE	-	-	-	-	-	-
Cow Calf	954	997	1,006	1,060	829	969
Cull animals and slaughter receipts	126	142	137	152	142	140
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	828	856	869	907	687	829
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	954	997	1,006	1,060	829	969
VARIABLE COSTS	-	-	-	-	-	-
Animal purchases	35.5	35.5	35.5	35.5	35.5	36
Feed (purchase feed, fertiliser, seed, pesticides)	163.1	144.6	144.3	144.3	142.6	148
Machinery (maintenance, depreciation, contractor)	133.2	129.4	123.5	119.4	117.1	125
Fuel, energy, lubricants, water	60.4	74.5	75.9	57.5	54.7	65
Vet & medicine	25.7	22.1	20.1	19.0	18.4	21
Other inputs cow calf enterprise	70.6	71.3	69.0	65.2	63.9	68
Labour	-	-	-	-	-	-
Paid Labour	-	-	-	-	-	-
Unpaid Labour	258.2	250.7	239.8	229.7	224.8	241
Total Variable Costs	746.7	728.0	707.9	670.6	657.0	702
CAPITAL COSTS	-	-	-	-	-	-
Insurance, taxes	81.6	79.2	75.8	72.6	71.1	76
Buildings (maintenance, depreciation)	89.7	89.7	88.0	85.7	83.4	87
Land Cost	-	-	-	-	-	-
Rented Land	249.4	248.4	247.4	246.3	198.7	238
Own Land	463.1	461.4	459.5	457.5	369.0	442
Capital Costs	-	-	-	-	-	-
Liabilities	75.7	80.9	74.2	62.5	53.4	69
Own capital	8.4	9.1	10.6	15.1	14.6	12
Total Capital Costs	967.9	968.7	955.6	939.6	790.1	924
COSTS	-	-	-	-	-	-
Cash Costs	887.3	880.5	862.7	819.5	752.0	840
Depreciation Costs	97.6	95.0	90.9	88.5	86.7	92
Opportunity Costs	729.7	721.1	709.9	702.2	608.4	694
Total Production Costs	1,714.6	1,696.7	1,663.5	1,610.1	1,447.1	1,626
Profits	2020	2019	2018	2017	2016	5-yr. avg.
Short-term profit (cash costs)	66.7	116.5	143.1	240.1	77.0	129
Medium-term profit (cash + depreciation)	(30.9)	21.5	52.3	151.7	(9.7)	37
Long-term profit (cash + depreciation + opportunity)	(760.6)	(699.6)	(657.6)	(550.5)	(618.0)	(657)

*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.

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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	102,397	102,397	102,397	102,397	102,397	102,397
Average male and female weaning weight (lbs)	558	558	558	558	558	
Average male and female calf price at weaning (\$/lb)	1.95	2.02	2.05	2.14	1.62	1.96
REVENUE						
Cow Calf Operation	2.28	2.39	2.41	2.54	1.98	2.32
Cull animals and slaughter receipts	0.30	0.34	0.33	0.36	0.34	0.33
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1.98	2.05	2.08	2.17	1.64	1.98
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	2.28	2.39	2.41	2.54	1.98	2.32
VARIABLE COSTS						
Animal purchases	0.08	0.08	0.08	0.08	0.08	0.08
Feed (purchase feed, fertiliser, seed, pesticides)	0.39	0.35	0.35	0.35	0.34	0.35
Machinery (maintenance, depreciation, contractor)	0.32	0.31	0.30	0.29	0.28	0.30
Fuel, energy, lubricants, water	0.14	0.18	0.18	0.14	0.13	0.15
Vet & medicine	0.06	0.05	0.05	0.05	0.04	0.05
Other inputs cow calf enterprise	0.17	0.17	0.16	0.16	0.15	0.16
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	0.62	0.60	0.57	0.55	0.54	0.58
Total Variable Costs	1.8	1.7	1.7	1.6	1.6	1.7
CAPITAL COSTS						
Insurance, taxes	0.20	0.19	0.18	0.17	0.17	0.18
Buildings (maintenance, depreciation)	0.21	0.21	0.21	0.21	0.20	0.21
Land Cost						
Rented Land	0.60	0.59	0.59	0.59	0.48	0.57
Owned Land	1.11	1.10	1.10	1.09	0.88	1.06
Capital Costs						
Liabilities	0.18	0.19	0.18	0.15	0.13	0.17
Own capital	0.02	0.02	0.03	0.04	0.03	0.03
Total Capital Costs	2.3	2.3	2.3	2.2	1.9	2.2
COSTS						
Cash Costs	2.12	2.11	2.06	1.96	1.80	2.01
Depreciation Costs	0.23	0.23	0.22	0.21	0.21	0.22
Opportunity Costs	1.75	1.73	1.70	1.68	1.46	1.66
Total Production Costs	4.10	4.06	3.98	3.85	3.46	3.89
Profits	2020	2019	2018	2017	2016	5-yr. avg.
Short-term profit (cash costs)	0.16	0.28	0.34	0.57	0.18	0.31
Medium-term profit (cash + depreciation)	(0.07)	0.05	0.13	0.36	(0.02)	0.09
Long-term profit (cash + depreciation + opportunity)	(1.82)	(1.67)	(1.57)	(1.32)	(1.48)	(1.57)

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