



Farm Characteristics	CA-SK-3
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 lentils, 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. 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	3.5°C
Average Annual Precipitation (mm)	250 - 350 mm
Ecoregion	Mixed grassland
Stocking Rate (Animal Unit days per acre)	8
Fertilize Hay (yes/no)	No
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	1.2
Grassland Acres (owned+rented)	8,167
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%
Calves weaned per 100 cows exposed	89
Total Liveweight Sold per Cow (lb)	589
Weaning Weight (lb)	558
205 day adjusted Weaning Weight (lb)	612
Average Daily Gain pre-weaning (lb)	2.57
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 crops	6%
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

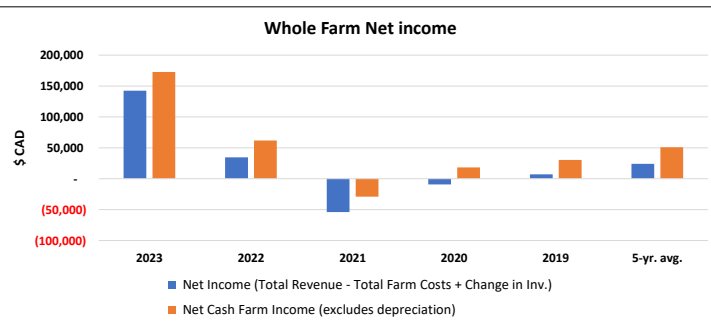
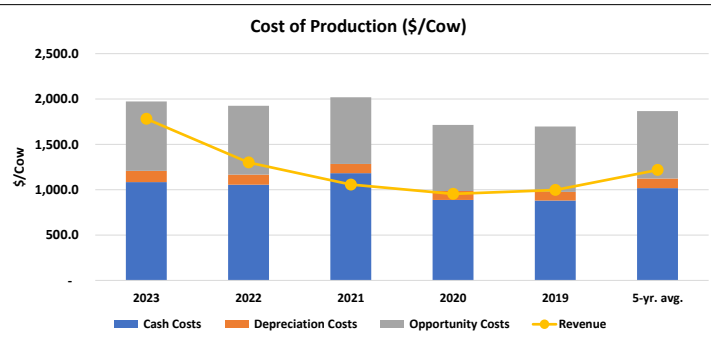
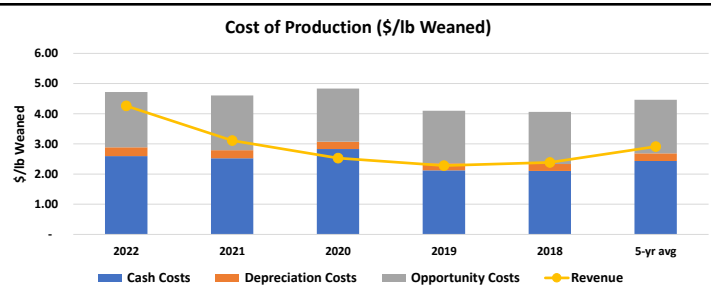
Footnotes:

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 Overview Page

Overview							
Operation Maturity	Medium						
Herd Size	245		Beef Animals Sold from Retained Ownership		N/A		
Paid Labour (livestock only) (hours)	-						
Unpaid Labour (livestock only) (hours)	2,716						
Average wages - paid and unpaid (\$/hr)	24.67						
Revenue		2023	2022	2021	2020	2019	5-yr. avg.
Market Revenue	5-yr avg	436,405	294,109	234,362	233,726	244,282	288,577
Cow-Calf	96%	436,405	294,109	234,362	233,726	244,282	288,577
Cash Crops	0%	-	-	-	-	-	-
Retained Ownership	0%	-	-	-	-	-	-
Government Payments	3%	-	24,500	24,500	-	-	9,800
Other Farm Revenue †	1%	2,495	2,480	2,480	2,480	2,480	2,483
Total Revenue	100%	438,900	321,089	261,342	236,206	246,762	300,859
Change in Inventory		-	-	-	(3,261)	-	(652)
Expenses		2023	2022	2021	2020	2019	5-yr. avg.
Depreciation		30,291	27,254	24,904	24,016	23,381	25,969
Machinery		18,395	15,993	14,374	13,879	13,416	15,211
Buildings		11,896	11,262	10,531	10,138	9,965	10,758
Quota econ. Accounting		-	-	-	-	-	-
Overhead costs		91,551	88,463	74,324	66,065	69,046	77,890
Land improvement		8,786	8,595	8,427	7,944	7,976	8,346
Machinery Maintenance		4,468	4,486	4,701	4,318	4,297	4,454
Buildings Maintenance		14,208	13,578	12,468	12,071	12,225	12,910
Contract labour		3,056	3,156	2,997	2,891	2,804	2,981
Diesel, Gasoline, Natural Gas		14,226	17,994	12,201	8,491	12,095	13,001
Electricity		20,969	14,503	8,797	6,472	6,333	11,415
Water		-	-	-	-	-	-
Farm insurance		8,254	8,525	8,094	7,808	7,575	8,051
Disability and accident insurance		3,119	3,222	3,059	2,951	2,863	3,043
Farm taxes and duties		5,636	5,821	5,527	5,332	5,172	5,498
Advisor costs		-	-	-	-	-	-
Accountant & legal fees		1,216	1,256	1,192	1,150	1,116	1,186
Phone & utilities		7,321	7,046	6,599	6,384	6,338	6,737
Other overhead costs		292	281	264	255	253	269
Wages, rent and interest payments		87,138	85,826	80,738	79,847	80,892	82,888
Paid Labour		-	-	-	-	-	-
Total land rents		62,940	62,091	61,418	61,091	60,866	61,681
Total Interest on debt		24,199	23,735	19,320	18,755	20,027	21,207
Cow-Calf		70,125	66,684	118,191	55,558	50,346	72,181
Animal purchases		8,700	8,700	8,700	8,700	8,700	8,700
Purchased feed		36,786	33,576	87,778	26,962	22,497	41,520
Other fixed and var. costs *		24,640	24,408	21,713	19,896	19,149	21,961
Retained Ownership		-	-	-	-	-	-
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		17,402	18,284	17,231	16,592	16,139	17,130
Seed		544	474	488	463	493	492
Fertilizer		-	-	-	-	-	-
Herbicide		2,584	3,214	2,911	2,780	2,655	2,829
Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour		12,195	12,596	11,959	11,536	11,192	11,896
Fuel costs (crop & forage)		-	-	-	-	-	-
Other crop and forage		2,078	2,000	1,873	1,812	1,799	1,913
Total Farm Costs (excludes unpaid labour)		296,509	286,510	315,389	242,078	239,805	276,058
Cash Costs (Total Farm Costs - Depreciation)		266,217	259,256	290,484	218,062	216,424	250,089
Depreciation & Opportunity Costs (including unpaid labour)		97,279	94,241	91,892	91,003	90,368	92,957
Total Economic Costs (cash, depr, opportunity)		363,496	353,498	382,376	309,065	306,792	343,045
Profits		2023	2022	2021	2020	2019	5-yr. avg.
Net Income (Total Revenue - Total Farm Costs + Change in Inv.)		142,391	34,578	(54,047)	(9,134)	6,957	24,149
Net Cash Farm Income (excludes depreciation)		172,667	61,833	(29,143)	18,143	30,338	50,768

† 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*	245	245	245	245	245	245
Average male and female calf price (\$/head)	2,031	1,371	1,097	1,087	1,125	1,342
REVENUE						
Cow Calf	1,781	1,300	1,057	954	997	1,218
Cull animals and slaughter receipts	237	156	120	126	142	156
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,545	1,045	837	828	856	1,022
Government payments	-	100.0	100.0	-	-	40.0
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,781	1,300	1,057	954	997	1,218
VARIABLE COSTS						
Animal purchases	35.5	35.5	35.5	35.5	35.5	36
Feed (purchase feed, fertiliser, seed, pesticides)	207.3	195.3	414.2	163.1	144.6	225
Machinery (maintenance, depreciation, contractor)	155.6	147.9	138.9	133.2	129.4	141
Fuel, energy, lubricants, water	142.8	131.5	84.8	60.4	74.5	99
Vet & medicine	33.9	31.6	28.4	25.7	22.1	28
Other inputs cow calf enterprise	85.1	84.8	75.8	70.6	71.3	78
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	274.4	282.6	267.7	258.2	250.7	267
Total Variable Costs	934.6	909.3	1,045.3	746.7	728.0	873
CAPITAL COSTS						
Insurance, taxes	86.5	89.2	84.6	81.6	79.2	84
Buildings (maintenance, depreciation)	105.9	100.5	92.9	89.7	89.7	96
Land Cost	-	-	-	-	-	-
Rented Land	256.9	253.4	250.7	249.4	248.4	252
Own Land	477.1	470.7	465.6	463.1	461.4	468
Capital Costs	-	-	-	-	-	-
Liabilities	98.2	96.1	78.1	75.7	80.9	86
Own capital	14.6	5.4	2.8	8.4	9.1	8
Total Capital Costs	1,039.2	1,015.4	974.6	967.9	968.7	993
COSTS						
Cash Costs	1,084.4	1,055.2	1,182.7	887.3	880.5	1,018
Depreciation Costs	123.4	110.9	101.2	97.6	95.0	106
Opportunity Costs	766.0	758.7	736.0	729.7	721.1	742
Total Production Costs	1,973.8	1,924.7	2,019.9	1,714.6	1,696.7	1,866
Profits						
	2023	2022	2021	2020	2019	5-yr. avg.
Short-term profit (cash costs)	696.8	245.3	(126.1)	66.7	116.5	200
Medium-term profit (cash + depreciation)	573.4	134.4	(227.3)	(30.9)	21.5	94
Long-term profit (cash + depreciation + opportunity)	(192.6)	(624.3)	(963.3)	(760.6)	(699.6)	(648)

*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.

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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)	2023	2022	2021	2020	2019	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)	3.64	2.46	1.97	1.95	2.02	2.41
REVENUE						
Cow Calf Operation	4.26	3.11	2.53	2.28	2.39	2.91
Cull animals and slaughter receipts	0.57	0.37	0.29	0.30	0.34	0.37
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	3.70	2.50	2.00	1.98	2.05	2.45
Government payments	-	0.24	0.24	-	-	0.10
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	4.26	3.11	2.53	2.28	2.39	2.91
VARIABLE COSTS						
Animal purchases	0.08	0.08	0.08	0.08	0.08	0.08
Feed (purchase feed, fertiliser, seed, pesticides)	0.50	0.47	0.99	0.39	0.35	0.54
Machinery (maintenance, depreciation, contractor)	0.37	0.35	0.33	0.32	0.31	0.34
Fuel, energy, lubricants, water	0.34	0.31	0.20	0.14	0.18	0.24
Vet & medicine	0.08	0.08	0.07	0.06	0.05	0.07
Other inputs cow calf enterprise	0.20	0.20	0.18	0.17	0.17	0.19
Labour						
Paid Labour	-	-	-	-	-	-
Unpaid Labour	0.66	0.68	0.64	0.62	0.60	0.64
Total Variable Costs	2.2	2.2	2.5	1.8	1.7	2.1
CAPITAL COSTS						
Insurance, taxes	0.21	0.21	0.20	0.20	0.19	0.20
Buildings (maintenance, depreciation)	0.25	0.24	0.22	0.21	0.21	0.23
Land Cost						
Rented Land	0.61	0.61	0.60	0.60	0.59	0.60
Owned Land	1.14	1.13	1.11	1.11	1.10	1.12
Capital Costs						
Liabilities	0.23	0.23	0.19	0.18	0.19	0.21
Own capital	0.03	0.01	0.01	0.02	0.02	0.02
Total Capital Costs	2.5	2.4	2.3	2.3	2.3	2.4
COSTS						
Cash Costs	2.59	2.52	2.83	2.12	2.11	2.44
Depreciation Costs	0.30	0.27	0.24	0.23	0.23	0.25
Opportunity Costs	1.83	1.82	1.76	1.75	1.73	1.78
Total Production Costs	4.72	4.61	4.83	4.10	4.06	4.46
Profits						
Short-term profit (cash costs)	1.67	0.59	(0.30)	0.16	0.28	0.48
Medium-term profit (cash + depreciation)	1.37	0.32	(0.54)	(0.07)	0.05	0.23
Long-term profit (cash + depreciation + opportunity)	(0.46)	(1.49)	(2.30)	(1.82)	(1.67)	(1.55)

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