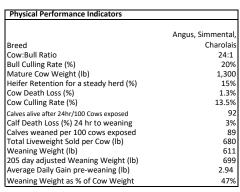
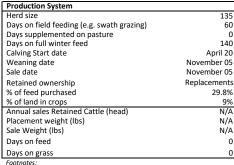
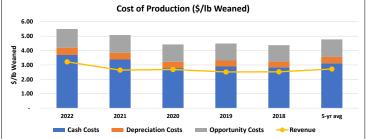


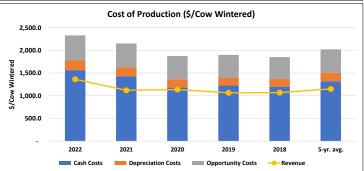
Farm Characteristics	CA-SK-5
Farm Description	A mixed cow-calf and cash crop operation utilizing predominantly purchased feed (from grain enterprise) in a region dominated by spear
	and wheat grasses.
Winter Feeding Ration	60 days of stubble, aftermath grazing followed by 140 days of predominantly cereal silage (19 lb), hay (10 lb), straw and chalf (8 lb),
(lbs/cow/day as fed)	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	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 chaff or
(lb/head/day as fed)	meal (when bedded, confined (90 days)) (3 lb) with mineral (54 g) and salt (45 g)
Disclaimer:	This handbark is based on 2 forms of data; outliers were excluded as required

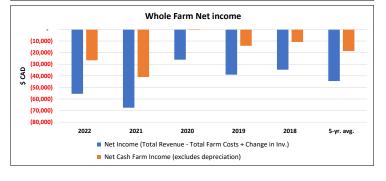
Environment	
Average Annual Temperature	2.5°C
Average Annual Precipitation (mm)	350–400 mm
Ecoregion	Moist mixed grassland
Stocking Rate (Animal Unit days per acre)	20
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	1.3
Grassland Acres (owned+rented)	1,994
Crop Acres (includes hay) (owned+rented)	198
Bush and other acres	0











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 Herd Size Paid Labour (livestock only) (hours) Unpaid Labour (livestock only) (hours) Average wages - paid and unpaid (\$/hr)	Start-up 135 1,802 1,529 25.15	Beef Animals	Sold from Retaine	ed Ownership	N/A		
Revenue		2022	2021	2020	2019	2018	5-yr. avg
Market Revenue	5-yr avg	170,488	137,777	159,958	155,410	154,672	155,661
Cow-Calf	92%	170,488	137,777	153,592	143,817	144,455	150,026
Cash Crops Retained Ownership	3% 0%	-	-	6,366	11,593	10,217	5,635
Government Payments	3%	13,500	13,500	-	-	-	5,400
Other Farm Revenue +	1%	1,667	1,667	1,667	1,667	1,667	1,667
Total Revenue	100%	185,655	152,944	161,625	157,076	156,339	162,728
Change in Inventory		-	-	-	-	-	-
Expenses		2022	2021	2020	2019	2018	5-yr. avg
Depreciation		28,952	26,527	25,575	24,927	23,895	25,975
Machinery		15,028	13,507	13,042	12,607	11,879	13,213
Buildings		13,923	13,019	12,533	12,320	12,016	12,762
Quota econ. Accounting		-	-	-	-	-	-
Overhead costs		63,249	51,757	44,783	48,088	47,654	51,106
Land improvement		4,378	4,509	4,250	4,267	4,203	4,321
Machinery Maintenance		1,479	1,550	1,423	1,417	1,394	1,452
Buildings Maintenance		2,349	2,154	2,085	2,112	2,083	2,156
Contract labour		233	233	225	218	209	224
Diesel, Gasoline, Natural Gas		20,616	13,979	9,729	13,669	14,547	14,508
Electricity		8,930	5,416	3,985	3,899	3,574	5,161
Water		-	-	-	-	-	-
Farm insurance		4,481	4,254	4,104	3,982	3,808	4,126
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		2,902	2,755	2,658	2,579	2,466	2,672
Advisor costs		2,175	2,065	1,992	1,933	1,848	2,003
Accountant & legal fees		10,318	9,796	9,450	9,168	8,768	9,500
Phone & utilities		4,068	3,810	3,686	3,659	3,589	3,762
Other overhead costs		1,320	1,236	1,196	1,188	1,165	1,221
Wages, rent and interest payments		78,084	65,085	62,953	68,247	66,559	68,186
Paid Labour		36,532	34,684	33,458	32,459	31,043	33,635
Total land rents		7,547	7,426	7,368	7,327	7,283	7,390
Total Interest on debt		34,005	22,975	22,127	28,461	28,232	27,160
Cow-Calf		46,648	56,119	35,607	34,741	33,329	41,289
Animal purchases		4,733	4,733	4,733	4,733	4,733	4,733
Purchased feed		18,264	30,482	11,879	11,058	10,456	16,428
Other fixed and var. costs *		23,651	20,904	18,995	18,951	18,139	20,128
Retained Ownership		,	,	,	,	,	
Animal purchases		-	-	-	-	-	
Purchased feed		-	-	-	-	-	_
Other fixed and var. costs *		-	-	-	-	-	-
Crop and forage		24,214	20,996	18,747	20,050	19,583	20,718
Seed		6,123	6,307	5,991	6,375	5,922	6,144
Fertilizer		7,679	6,206	5,412	5,610	5,463	6,074
Herbicide		4,537	4,109	3,925	3,748	3,675	3,999
Fungicide & Insecticide Irrigation		556 -	556 -	556	556	556 -	556
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		4,504	3,054	2,125	3,027	3,247	3,191
Other crop and forage		816	764	739	734	720	754
Total Farm Costs (excludes unpaid labour)		241,146	220,484	187,665	196,055	191,018	207,274
Cash Costs (Total Farm Costs - Depreciation)		212,194	193,958	162,090	171,127	167,123	181,299
Depreciation & Opportunity Costs (including		67,402	64,977	64,026	63,378	62,346	64,426
Total Economic Costs (cash, depr, opportunit	y)	279,597	258,935	226,116	234,505	229,469	245,725
Profits		2022	2021	2020	2019	2018	5-yr. avg
Net Income (Total Revenue - Total Farm Costs + Cl	hange in Inv.)	(55,491)	(67,541)	(26,041)	(38,978)	(34,680)	(44,546
Net Cash Farm Income (excludes depreciation)		(26,539)	(41,014)	(465)	(14,051)	(10,785)	(18,571

<sup>+</sup> Other Farm Revenue includes: Other enterprises, capital gains and losses as well as calculated interest on savings based on the models previous year profits.





<sup>\*</sup>Other fixed and var. costs includes: veterinary, medicine, maintenance and spare parts, and other/miscellaneous

Cow-Calf Enterprise (\$/Cow Wintered)	2022	2021	2020	2019	2018	5 yr. avg.
Cows Wintered *	135	135	135	135	135	135
Average male and female calf price (\$/head)	1,445	1,125	1,276	1,178	1,162	1,237
REVENUE						
Cow Calf	1,363	1,121	1,138	1,065	1,070	1,151
Cull animals and slaughter receipts	249	232	248	242	256	246
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,014	788	889	824	814	866
Government payments	100.0	100.0	-	-	-	40.0
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	1,363	1,121	1,138	1,065	1,070	1,151
VARIABLE COSTS						
Animal purchases	35.1	35.1	35.1	35.1	35.1	35
Feed (purchase feed, fertiliser, seed, pesticides)	313.7	392.1	242.6	239.6	229.6	284
Machinery (maintenance, depreciation, contractor)	122.8	111.9	103.4	96.6	92.3	105
Fuel, energy, lubricants, water	255.1	169.6	117.3	146.6	153.1	168
Vet & medicine	36.1	33.3	30.3	26.2	23.9	30
Other inputs cow calf enterprise	254.4	230.0	210.4	207.7	201.4	221
Labour						
Paid Labour	270.6	256.9	247.8	240.4	229.9	249
Unpaid Labour	340.0	322.8	311.4	302.1	288.9	313
Total Variable Costs	1,627.9	1,551.7	1,298.3	1,294.3	1,254.3	1,405
CAPITAL COSTS						
Insurance, taxes	65.2	61.8	58.5	55.7	53.5	59
Buildings (maintenance, depreciation)	120.5	112.4	108.3	106.9	104.4	111
Land Cost	-	-	-	-	-	
Rented Land	55.9	55.0	54.6	54.3	54.0	55
Own Land	211.9	203.9	199.9	197.2	194.3	201
Capital Costs	-	-	-	-	-	
Liabilities	249.6	168.3	155.8	193.0	193.2	192
Own capital	0.0	0.0	0.0	0.0	0.0	0
Total Capital Costs	703.1	601.4	577.0	607.2	599.5	618
COSTS						
Cash Costs	1,565.7	1,431.1	1,179.3	1,225.3	1,200.2	1,320
Depreciation Costs	213.4	195.3	184.6	176.8	170.3	188
Opportunity Costs	551.9	526.7	511.4	499.4	483.3	515
Total Production Costs	2,331.0	2,153.1	1,875.4	1,901.5	1,853.7	2,023
Profits	2022	2021	2020	2019	2018	5-yr. avg.
Short-term profit (cash costs)	(202.8)	(310.5)	(41.6)	(160.0)	(130.1)	(169)
Medium-term profit (cash + depreciation)	(416.2)	(505.8)	(226.3)	(336.8)	(300.4)	(357)
Long-term profit (cash + depreciation + opportunity)	(968.1)	(1,032.5)	(737.6)	(836.2)	(783.7)	(872)
*Model Maintains a stable herd size						

\*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. Produce rs 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 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 redet. 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.

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 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, 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.

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)	2022	2021	2020	2019	2018	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)	2.37	1.84	2.09	1.93	1.90	2.03
REVENUE						
Cow Calf Operation	3.22	2.64	2.69	2.51	2.53	2.72
Cull animals and slaughter receipts	0.59	0.55	0.59	0.57	0.61	0.58
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	2.39	1.86	2.10	1.94	1.92	2.04
Government payments	0.24	0.24	-	-	-	0.09
Other returns	-	-	-	-	-	-
Total Cow-Calf Revenue	3.22	2.64	2.69	2.51	2.53	2.72
VARIABLE COSTS						
Animal purchases	0.08	0.08	0.08	0.08	0.08	0.08
Feed (purchase feed, fertiliser, seed, pesticides)	0.74	0.93	0.57	0.57	0.54	0.67
Machinery (maintenance, depreciation, contractor)	0.29	0.26	0.24	0.23	0.22	0.25
Fuel, energy, lubricants, water	0.60	0.40	0.28	0.35	0.36	0.40
Vet & medicine	0.09	0.08	0.07	0.06	0.06	0.07
Other inputs cow calf enterprise	0.60	0.54	0.50	0.49	0.48	0.52
Labour						
Paid Labour	0.64	0.61	0.58	0.57	0.54	0.59
Unpaid Labour	0.80	0.76	0.74	0.71	0.68	0.74
Total Variable Costs	3.8	3.7	3.1	3.1	3.0	3.3
CAPITAL COSTS						
Insurance, taxes	0.15	0.15	0.14	0.13	0.13	0.14
Buildings (maintenance, depreciation)	0.28	0.27	0.26	0.25	0.25	0.26
Land Cost						
Rented Land	0.13	0.13	0.13	0.13	0.13	0.13
Owned Land	0.50	0.48	0.47	0.47	0.46	0.48
Capital Costs						
Liabilities	0.59	0.40	0.37	0.46	0.46	0.45
Own capital	0.00	0.00	0.00	0.00	0.00	0.00
Total Capital Costs	1.7	1.4	1.4	1.4	1.4	1.5
COSTS						
Cash Costs	3.70	3.38	2.78	2.89	2.83	3.12
Depreciation Costs	0.50	0.46	0.44	0.42	0.40	0.44
Opportunity Costs	1.30	1.24	1.21	1.18	1.14	1.21
Total Production Costs	5.50	5.08	4.43	4.49	4.38	4.77
Profits	2022	2021	2020	2019	2018	5-yr. avg.
Short-term profit (cash costs)	(0.48)	(0.73)	(0.10)	(0.38)	(0.31)	(0.40)
Medium-term profit (cash + depreciation)	(0.98)	(1.19)	(0.53)	(0.79)	(0.71)	(0.84)
Long-term profit (cash + depreciation + opportunity)	(2.29)	(2.44)	(1.74)	(1.97)	(1.85)	(2.06)

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 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. Produce rs who want a cash flow analysis typically use a calendar or

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

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 feed" 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 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 AgrProfit\$ 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

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 (S/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

intercurve and to the Expressed as unlar specific warmineted (your winneted winner adjusts the Cair price per nead of the number of cares soid per 100 claws. When evaluating over an cost structure to the first of the 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.



