

## 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 (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 (oat hulls or barley) (3 lb), camelina meal (1 lb), straw or chaff 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. 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	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

### 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%
Calves weaned per 100 cows exposed	89
Total Liveweight Sold per Cow (lb)	680
Weaning Weight (lb)	611
205 day adjusted Weaning Weight (lb)	687
Average Daily Gain pre-weaning (lb)	2.94
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	140
Calving Start date	April 20
Weaning date	November 05
Sale date	November 05
Retained ownership	Replacements
% of feed purchased	29.8%
% of land in crops	9%
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

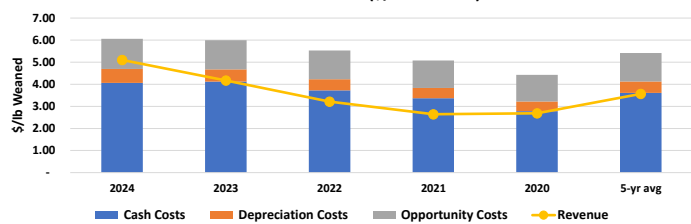
Opportunity Costs = Calculated cost for using own production factors like labour (family working hours \* wage for qualified local labour, land (own land \* regional land rents) and capital (non-land equity \* long-term government bonds interest rate)

Whole Farm Profitability = Market returns (+ coupled payments) (+ decoupled payments) - whole-farm costs +/- changes in inventory +/- capital gains/losses.

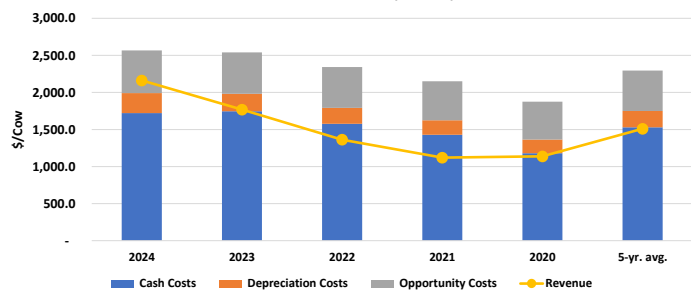
Whole Farm Net Income = Whole farm profitability + depreciation + changes in inventory + capital gains/losses. Known as: 'Net farm income' (Agri Profits, 2018)

Revenue = sales of calves, cull cows, breeding stock, government payments and other revenue applicable to the specific enterprise

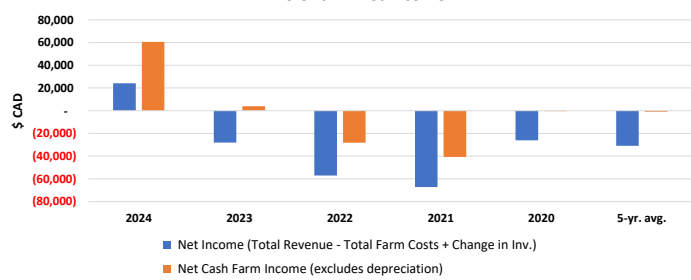
### Cost of Production (\$/lb Weaned)



### Cost of Production (\$/Cow)



### Whole Farm Net income



## Whole Farm Overview Page

Overview							
Operation Maturity	Start-up						
Herd Size	135						
Paid Labour (livestock only) (hours)	1,802						
Unpaid Labour (livestock only) (hours)	1,529						
Average wages - paid and unpaid (\$/hr)	24.35						
<b>Revenue</b>		<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5-yr. avg.</b>
<b>Market Revenue</b>	<b>5-yr avg</b>	<b>291,862</b>	<b>238,673</b>	<b>170,488</b>	<b>137,777</b>	<b>159,958</b>	<b>199,752</b>
Cow-Calf	96%	291,862	238,673	170,488	137,777	153,592	198,478
Cash Crops	1%	-	-	-	-	6,366	1,273
Retained Ownership	0%	-	-	-	-	-	-
<b>Government Payments</b>	<b>3%</b>	<b>-</b>	<b>-</b>	<b>13,500</b>	<b>13,500</b>	<b>-</b>	<b>5,400</b>
<b>Other Farm Revenue †</b>	<b>1%</b>	<b>1,667</b>	<b>1,667</b>	<b>1,667</b>	<b>1,667</b>	<b>1,667</b>	<b>1,667</b>
<b>Total Revenue</b>	<b>100%</b>	<b>293,528</b>	<b>240,340</b>	<b>185,655</b>	<b>152,944</b>	<b>161,625</b>	<b>206,818</b>
Change in Inventory		-	-	-	-	-	-
<b>Expenses</b>		<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5-yr. avg.</b>
<b>Depreciation</b>		<b>36,473</b>	<b>31,994</b>	<b>28,952</b>	<b>26,527</b>	<b>25,575</b>	<b>29,904</b>
Machinery		20,933	17,286	15,028	13,507	13,042	15,959
Buildings		15,540	14,708	13,923	13,019	12,533	13,945
Quota econ. Accounting		-	-	-	-	-	-
<b>Overhead costs</b>		<b>59,647</b>	<b>64,365</b>	<b>64,323</b>	<b>51,904</b>	<b>44,783</b>	<b>57,004</b>
Land improvement		6,001	5,567	5,104	4,596	4,250	5,104
Machinery Maintenance		2,321	2,054	1,818	1,608	1,423	1,845
Buildings Maintenance		2,489	2,454	2,345	2,154	2,085	2,305
Contract labour		238	238	246	233	225	236
Diesel, Gasoline, Natural Gas		15,484	16,299	20,616	13,979	9,729	15,221
Electricity		8,139	12,911	8,930	5,416	3,985	7,876
Water		-	-	-	-	-	-
Farm insurance		4,338	4,338	4,481	4,254	4,104	4,303
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		2,810	2,810	2,902	2,755	2,658	2,787
Advisor costs		2,106	2,106	2,175	2,065	1,992	2,089
Accountant & legal fees		9,990	9,990	10,318	9,796	9,450	9,909
Phone & utilities		4,327	4,227	4,068	3,810	3,686	4,023
Other overhead costs		1,405	1,372	1,320	1,236	1,196	1,306
<b>Wages, rent and interest payments</b>		<b>102,492</b>	<b>102,950</b>	<b>78,137</b>	<b>65,078</b>	<b>62,953</b>	<b>82,322</b>
Paid Labour		35,369	35,369	36,532	34,684	33,458	35,082
Total land rents		8,520	8,028	7,547	7,426	7,368	7,778
Total Interest on debt		58,604	59,553	34,058	22,968	22,127	39,462
<b>Cow-Calf</b>		<b>49,703</b>	<b>46,728</b>	<b>47,096</b>	<b>55,631</b>	<b>35,607</b>	<b>46,953</b>
Animal purchases		8,676	6,587	5,395	4,629	4,733	6,004
Purchased feed		18,280	17,746	18,631	30,482	11,879	19,403
Other fixed and var. costs *		22,747	22,396	23,070	20,520	18,995	21,546
<b>Retained Ownership</b>		<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
Animal purchases		-	-	-	-	-	-
Purchased feed		-	-	-	-	-	-
Other fixed and var. costs *		-	-	-	-	-	-
<b>Crop and forage</b>		<b>21,103</b>	<b>22,400</b>	<b>24,214</b>	<b>20,996</b>	<b>18,747</b>	<b>21,492</b>
Seed		7,097	7,033	6,123	6,307	5,991	6,510
Fertilizer		6,660	6,754	7,679	6,206	5,412	6,542
Herbicide		2,540	3,649	4,537	4,109	3,925	3,752
Fungicide & Insecticide		556	556	556	556	556	556
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		3,383	3,561	4,504	3,054	2,125	3,325
Other crop and forage		868	848	816	764	739	807
<b>Total Farm Costs (excludes unpaid labour)</b>		<b>269,418</b>	<b>268,437</b>	<b>242,721</b>	<b>220,136</b>	<b>187,665</b>	<b>237,676</b>
Cash Costs (Total Farm Costs - Depreciation)		232,946	236,443	213,770	193,609	162,090	207,772
Depreciation & Opportunity Costs (including unpaid labour)		73,699	69,220	66,178	63,753	62,802	67,130
Total Economic Costs (cash, depr, opportunity)		306,645	305,663	279,948	257,362	224,892	274,902
<b>Profits</b>		<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5-yr. avg.</b>
<b>Net Income (Total Revenue - Total Farm Costs + Change in Inv.)</b>		<b>24,110</b>	<b>(28,098)</b>	<b>(57,066)</b>	<b>(67,192)</b>	<b>(26,041)</b>	<b>(30,857)</b>
<b>Net Cash Farm Income (excludes depreciation)</b>		<b>60,583</b>	<b>3,896</b>	<b>(28,115)</b>	<b>(40,665)</b>	<b>(465)</b>	<b>(953)</b>

† 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



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<b>Cow-Calf Enterprise (\$/Cow)</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5 yr. avg.</b>
No. of Cows*	135	135	135	135	135	135
Average male and female calf price (\$/head)	2,503	2,083	1,445	1,125	1,276	1,686
<b>REVENUE</b>						
Cow Calf	2,162	1,768	1,363	1,121	1,138	1,510
Cull animals and slaughter receipts	424	312	249	232	248	293
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,738	1,456	1,014	788	889	1,177
Government payments	-	-	100.0	100.0	-	40.0
Other returns	-	-	-	-	-	-
<b>Total Cow-Calf Revenue</b>	<b>2,162</b>	<b>1,768</b>	<b>1,363</b>	<b>1,121</b>	<b>1,138</b>	<b>1,510</b>
<b>VARIABLE COSTS</b>						
Animal purchases	64.3	48.8	40.0	34.3	35.1	44
Feed (purchase feed, fertiliser, seed, pesticides)	311.1	312.2	321.8	392.7	242.6	316
Machinery (maintenance, depreciation, contractor)	173.0	144.0	125.4	112.3	103.4	132
Fuel, energy, lubricants, water	204.1	246.3	255.1	169.6	117.3	198
Vet & medicine	32.4	32.1	31.5	30.7	30.3	31
Other inputs cow calf enterprise	251.9	248.5	254.7	229.8	210.4	239
Labour						
Paid Labour	262.0	262.0	270.6	256.9	247.8	260
Unpaid Labour	329.2	329.2	340.0	322.8	311.4	327
<b>Total Variable Costs</b>	<b>1,628.0</b>	<b>1,623.1</b>	<b>1,639.1</b>	<b>1,549.2</b>	<b>1,298.3</b>	<b>1,548</b>
<b>CAPITAL COSTS</b>						
Insurance, taxes	63.2	63.2	65.2	61.8	58.5	62
Buildings (maintenance, depreciation)	133.5	127.1	120.5	112.4	108.3	120
Land Cost	-	-	-	-	-	-
Rented Land	63.1	59.5	55.9	55.0	54.6	58
Own Land	246.9	229.4	211.9	203.9	199.9	218
Capital Costs	-	-	-	-	-	-
Liabilities	431.6	438.1	250.0	168.3	155.8	289
Own capital	0.0	0.0	0.0	0.0	0.0	0
<b>Total Capital Costs</b>	<b>938.5</b>	<b>917.3</b>	<b>703.5</b>	<b>601.3</b>	<b>577.0</b>	<b>748</b>
<b>COSTS</b>						
Cash Costs	1,721.0	1,745.6	1,577.3	1,428.5	1,179.3	1,530
Depreciation Costs	269.3	236.1	213.4	195.3	184.6	220
Opportunity Costs	576.1	558.6	551.9	526.7	511.4	545
<b>Total Production Costs</b>	<b>2,566.5</b>	<b>2,540.3</b>	<b>2,342.6</b>	<b>2,150.5</b>	<b>1,875.4</b>	<b>2,295</b>
<b>Profits</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5-yr. avg.</b>
<b>Short-term profit (cash costs)</b>	440.9	22.3	(214.5)	(308.0)	(41.6)	(20)
<b>Medium-term profit (cash + depreciation)</b>	171.6	(213.8)	(427.8)	(503.3)	(226.3)	(240)
<b>Long-term profit (cash + depreciation + opportunity)</b>	(404.5)	(772.4)	(979.8)	(1,029.9)	(737.6)	(785)

\*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.

**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.



<b>Cow-Calf Enterprise (\$/lb Weaned)</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5 yr. avg.</b>
<b>Pounds Weaned</b>	57,196	57,196	57,196	57,196	57,196	57,196
Average male and female weaning weight (lbs)	611	611	611	611	611	611
Average male and female calf price at weaning (\$/lb)	4.10	3.41	2.37	1.84	2.09	2.76
<b>REVENUE</b>						
Cow Calf Operation	5.10	4.17	3.22	2.64	2.69	3.56
Cull animals and slaughter receipts	1.00	0.74	0.59	0.55	0.59	0.69
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	4.10	3.44	2.39	1.86	2.10	2.78
Government payments	-	-	0.24	0.24	-	0.09
Other returns	-	-	-	-	-	-
<b>Total Cow-Calf Revenue</b>	<b>5.10</b>	<b>4.17</b>	<b>3.22</b>	<b>2.64</b>	<b>2.69</b>	<b>3.56</b>
<b>VARIABLE COSTS</b>						
Animal purchases	0.15	0.12	0.09	0.08	0.08	0.10
Feed (purchase feed, fertiliser, seed, pesticides)	0.73	0.74	0.76	0.93	0.57	0.75
Machinery (maintenance, depreciation, contractor)	0.41	0.34	0.30	0.27	0.24	0.31
Fuel, energy, lubricants, water	0.48	0.58	0.60	0.40	0.28	0.47
Vet & medicine	0.08	0.08	0.07	0.07	0.07	0.07
Other inputs cow calf enterprise	0.59	0.59	0.60	0.54	0.50	0.56
Labour						
Paid Labour	0.62	0.62	0.64	0.61	0.58	0.61
Unpaid Labour	0.78	0.78	0.80	0.76	0.74	0.77
<b>Total Variable Costs</b>	<b>3.8</b>	<b>3.8</b>	<b>3.9</b>	<b>3.7</b>	<b>3.1</b>	<b>3.7</b>
<b>CAPITAL COSTS</b>						
Insurance, taxes	0.15	0.15	0.15	0.15	0.14	0.15
Buildings (maintenance, depreciation)	0.32	0.30	0.28	0.27	0.26	0.28
Land Cost						
Rented Land	0.15	0.14	0.13	0.13	0.13	0.14
Owned Land	0.58	0.54	0.50	0.48	0.47	0.52
Capital Costs						
Liabilities	1.02	1.03	0.59	0.40	0.37	0.68
Own capital	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total Capital Costs</b>	<b>2.2</b>	<b>2.2</b>	<b>1.7</b>	<b>1.4</b>	<b>1.4</b>	<b>1.8</b>
<b>COSTS</b>						
Cash Costs	4.06	4.12	3.72	3.37	2.78	3.61
Depreciation Costs	0.64	0.56	0.50	0.46	0.44	0.52
Opportunity Costs	1.36	1.32	1.30	1.24	1.21	1.29
<b>Total Production Costs</b>	<b>6.06</b>	<b>6.00</b>	<b>5.53</b>	<b>5.08</b>	<b>4.43</b>	<b>5.42</b>
<b>Profits</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>5-yr. avg.</b>
<b>Short-term profit (cash costs)</b>	1.04	0.05	(0.51)	(0.73)	(0.10)	(0.05)
<b>Medium-term profit (cash + depreciation)</b>	0.41	(0.50)	(1.01)	(1.19)	(0.53)	(0.57)
<b>Long-term profit (cash + depreciation + opportunity)</b>	(0.95)	(1.82)	(2.31)	(2.43)	(1.74)	(1.85)

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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.

**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.

