



<b>Farm Characteristics</b>	<b>CA-ON-3</b>
<b>Farm Description</b>	A cow-calf operation with 50 beef cows, producing predominantly homegrown feed.
<b>Winter Feeding Ration (lbs/cow/day as fed)</b>	165 days on hay (30 lb) and oat/pea silage (15 lb)
<b>Retained Ownership/Replacement Ration (lb/head/day as fed)</b>	Replacement heifers: 165 days on hay (15 lb), oat/pea silage (8 lb) and protein lick tub (0.15 lb)
<b>Disclaimer:</b>	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	4.9 to 7.8°C
Average Annual Precipitation (mm)	759-1087 mm
Ecoregion	Lake Simcoe-Rideau
Stocking Rate (Animal Unit days per acre)	50
Fertilize Hay (yes/no)	Yes
Fertilize Pasture (yes/no)	No
Typical Hay Yield (tonnes/acre)	2.5
Grassland Acres (owned+rented)	316
Crop Acres (includes hay) (owned+rented)	96
Bush and other acres	45

Physical Performance Indicators	
Breed	Angus, Hereford, Charolais, Limousine
Cow:Bull Ratio	25:1
Bull Culling Rate (%)	32%
Mature Cow Weight (lb)	1,425
Heifer Retention for a steady herd (%)	10%
Cow Death Loss (%)	1.2%
Cow Culling Rate (%)	8.0%
Calves alive after 24hr/100 Cows exposed	94
Calf Death Loss (%) 24 hr to weaning	2%
Calves weaned per 100 cows exposed	94
Total Liveweight Sold per Cow (lb)	609
Weaning Weight (lb)	538
205 day adjusted Weaning Weight (lb)	532
Average Daily Gain pre-weaning (lb)	2.18
Weaning Weight as % of Cow Weight	38%

Production System	
Herd size	50
Days on field feeding (e.g. swath grazing)	0
Days supplemented on pasture	0
Days on full winter feed	165
Calving Start date	April 11
Weaning date	November 20
Sale date	November 20
Retained ownership	Replacements
% of feed purchased	1.4%
% of land in crops	21%
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

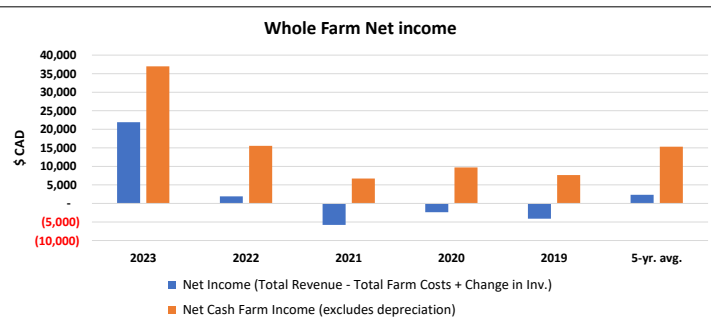
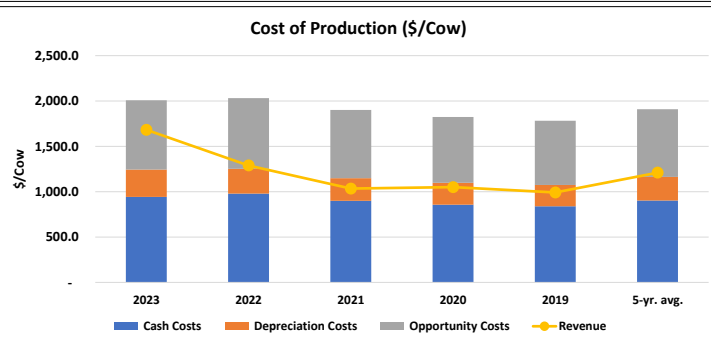
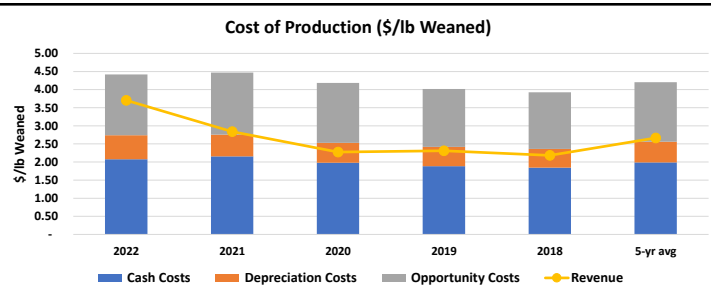
Footnotes:

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	50		Beef Animals Sold from Retained Ownership		N/A		
Paid Labour (livestock only) (hours)	257						
Unpaid Labour (livestock only) (hours)	1,163						
Average wages - paid and unpaid (\$/hr)	21.41						
Revenue		2023	2022	2021	2020	2019	5-yr. avg.
<b>Market Revenue</b>	<b>5-yr avg</b>	<b>84,125</b>	<b>64,477</b>	<b>51,701</b>	<b>52,520</b>	<b>49,583</b>	<b>60,481</b>
Cow-Calf	100%	84,125	64,477	51,701	52,520	49,583	60,481
Cash Crops	0%	-	-	-	-	-	-
Retained Ownership	0%	-	-	-	-	-	-
<b>Government Payments</b>	<b>0%</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Other Farm Revenue †</b>	<b>0%</b>	<b>11</b>	<b>1</b>	<b>-</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Total Revenue</b>	<b>100%</b>	<b>84,136</b>	<b>64,478</b>	<b>51,701</b>	<b>52,520</b>	<b>49,583</b>	<b>60,483</b>
Change in Inventory		-	-	-	-	-	-
Expenses		2023	2022	2021	2020	2019	5-yr. avg.
<b>Depreciation</b>		<b>15,063</b>	<b>13,647</b>	<b>12,511</b>	<b>12,062</b>	<b>11,759</b>	<b>13,008</b>
Machinery		7,931	6,895	6,197	5,984	5,784	6,558
Buildings		7,132	6,752	6,314	6,078	5,974	6,450
Quota econ. Accounting		-	-	-	-	-	-
<b>Overhead costs</b>		<b>18,864</b>	<b>20,413</b>	<b>18,694</b>	<b>17,761</b>	<b>17,685</b>	<b>18,683</b>
Land improvement		1,822	2,053	1,899	1,842	1,827	1,889
Machinery Maintenance		1,799	1,896	1,871	1,841	1,809	1,843
Buildings Maintenance		1,082	1,299	1,130	1,080	1,082	1,135
Contract labour		-	-	-	-	-	-
Diesel, Gasoline, Natural Gas		1,030	1,754	1,089	737	1,030	1,128
Electricity		-	-	-	-	-	-
Water		-	-	-	-	-	-
Farm insurance		5,292	5,466	5,190	5,006	4,857	5,162
Disability and accident insurance		-	-	-	-	-	-
Farm taxes and duties		3,834	3,960	3,760	3,627	3,519	3,740
Advisor costs		408	421	400	386	374	398
Accountant & legal fees		1,428	1,475	1,401	1,351	1,311	1,393
Phone & utilities		1,282	1,234	1,155	1,118	1,110	1,180
Other overhead costs		886	853	799	773	767	816
<b>Wages, rent and interest payments</b>		<b>12,137</b>	<b>12,689</b>	<b>12,276</b>	<b>11,391</b>	<b>10,942</b>	<b>11,887</b>
Paid Labour		5,507	5,688	5,400	5,209	5,054	5,371
Total land rents		3,488	3,221	2,814	2,433	2,356	2,862
Total Interest on debt		3,141	3,781	4,062	3,749	3,532	3,653
<b>Cow-Calf</b>		<b>11,519</b>	<b>11,220</b>	<b>9,774</b>	<b>9,657</b>	<b>9,153</b>	<b>10,265</b>
Animal purchases		3,400	3,400	3,400	3,400	3,400	3,400
Purchased feed		4,923	4,413	3,209	3,209	2,727	3,696
Other fixed and var. costs *		3,196	3,407	3,165	3,048	3,027	3,169
<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>4,652</b>	<b>4,604</b>	<b>4,224</b>	<b>4,006</b>	<b>4,155</b>	<b>4,328</b>
Seed		2,825	2,670	2,544	2,459	2,585	2,617
Fertilizer		1,134	1,267	1,056	942	971	1,074
Herbicide		-	-	-	-	-	-
Fungicide & Insecticide		-	-	-	-	-	-
Irrigation		-	-	-	-	-	-
Contract labour		-	-	-	-	-	-
Fuel costs (crop & forage)		-	-	-	-	-	-
Other crop and forage		693	667	625	604	600	638
<b>Total Farm Costs (excludes unpaid labour)</b>		<b>62,235</b>	<b>62,573</b>	<b>57,479</b>	<b>54,876</b>	<b>53,695</b>	<b>58,172</b>
Cash Costs (Total Farm Costs - Depreciation)		47,172	48,926	44,968	42,815	41,936	45,163
Depreciation & Opportunity Costs (including unpaid labour)		39,966	38,550	37,413	36,964	36,661	37,911
Total Economic Costs (cash, depr, opportunity)		87,137	87,476	82,382	79,779	78,597	83,074
Profits		2023	2022	2021	2020	2019	5-yr. avg.
<b>Net Income (Total Revenue - Total Farm Costs + Change in Inv.)</b>		<b>21,901</b>	<b>1,904</b>	<b>(5,778)</b>	<b>(2,357)</b>	<b>(4,112)</b>	<b>2,312</b>
<b>Net Cash Farm Income (excludes depreciation)</b>		<b>36,954</b>	<b>15,551</b>	<b>6,733</b>	<b>9,705</b>	<b>7,647</b>	<b>15,318</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



<b>Cow-Calf Enterprise (\$/Cow)</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>5 yr. avg.</b>
No. of Cows*	50	50	50	50	50	50
Average male and female calf price (\$/head)	1,729	1,313	1,065	1,085	1,024	1,243
<b>REVENUE</b>						
Cow Calf	1,683	1,290	1,034	1,050	992	1,210
Cull animals and slaughter receipts	207	165	126	124	115	147
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	1,476	1,124	908	927	877	1,062
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
<b>Total Cow-Calf Revenue</b>	<b>1,683</b>	<b>1,290</b>	<b>1,034</b>	<b>1,050</b>	<b>992</b>	<b>1,210</b>
<b>VARIABLE COSTS</b>						
Animal purchases	68.0	68.0	68.0	68.0	68.0	68
Feed (purchase feed, fertiliser, seed, pesticides)	227.9	221.4	186.7	181.1	174.2	198
Machinery (maintenance, depreciation, contractor)	194.6	175.8	161.4	156.5	151.9	168
Fuel, energy, lubricants, water	27.7	45.0	29.1	21.2	27.9	30
Vet & medicine	25.7	26.6	25.3	24.4	23.6	25
Other inputs cow calf enterprise	93.4	93.0	88.4	85.9	84.6	89
Labour						
Paid Labour	110.1	113.8	108.0	104.2	101.1	107
Unpaid Labour	498.0	514.4	488.4	471.1	457.1	486
<b>Total Variable Costs</b>	<b>1,245.6</b>	<b>1,258.0</b>	<b>1,155.2</b>	<b>1,112.4</b>	<b>1,088.3</b>	<b>1,172</b>
<b>CAPITAL COSTS</b>						
Insurance, taxes	200.3	206.8	196.4	189.4	183.8	195
Buildings (maintenance, depreciation)	164.3	161.0	148.9	143.2	141.1	152
Land Cost	-	-	-	-	-	-
Rented Land	69.8	64.4	56.3	48.7	47.1	57
Own Land	184.9	181.7	176.7	172.1	171.2	177
Capital Costs	-	-	-	-	-	-
Liabilities	62.8	75.6	81.2	75.0	70.6	73
Own capital	80.3	83.7	86.2	83.6	80.1	83
<b>Total Capital Costs</b>	<b>762.3</b>	<b>773.3</b>	<b>745.7</b>	<b>711.9</b>	<b>694.0</b>	<b>737</b>
<b>COSTS</b>						
Cash Costs	943.4	978.5	899.4	856.3	838.7	903
Depreciation Costs	301.3	272.9	250.2	241.2	235.2	260
Opportunity Costs	763.3	779.8	751.3	726.8	708.4	746
<b>Total Production Costs</b>	<b>2,008.0</b>	<b>2,031.3</b>	<b>1,900.9</b>	<b>1,824.3</b>	<b>1,782.3</b>	<b>1,909</b>
<b>Profits</b>						
	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>5-yr. avg.</b>
<b>Short-term profit (cash costs)</b>	739.1	311.0	134.7	194.1	152.9	306
<b>Medium-term profit (cash + depreciation)</b>	437.8	38.1	(115.6)	(47.1)	(82.2)	46
<b>Long-term profit (cash + depreciation + opportunity)</b>	(325.5)	(741.7)	(866.9)	(773.9)	(790.6)	(700)

\*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>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>5 yr. avg.</b>
<b>Pounds Weaned</b>	22,709	22,709	22,709	22,709	22,709	22,709
Average male and female weaning weight (lbs)	538	538	538	538	538	
Average male and female calf price at weaning (\$/lb)	3.21	2.44	1.98	2.02	1.90	2.31
<b>REVENUE</b>						
Cow Calf Operation	3.70	2.84	2.28	2.31	2.18	2.66
Cull animals and slaughter receipts	0.45	0.36	0.28	0.27	0.25	0.32
Breeding livestock receipts	-	-	-	-	-	-
Calf Sales and transfer to retained ownership enterprise	3.25	2.48	2.00	2.04	1.93	2.34
Government payments	-	-	-	-	-	-
Other returns	-	-	-	-	-	-
<b>Total Cow-Calf Revenue</b>	<b>3.70</b>	<b>2.84</b>	<b>2.28</b>	<b>2.31</b>	<b>2.18</b>	<b>2.66</b>
<b>VARIABLE COSTS</b>						
Animal purchases	0.15	0.15	0.15	0.15	0.15	0.15
Feed (purchase feed, fertiliser, seed, pesticides)	0.50	0.49	0.41	0.40	0.38	0.44
Machinery (maintenance, depreciation, contractor)	0.43	0.39	0.36	0.34	0.33	0.37
Fuel, energy, lubricants, water	0.06	0.10	0.06	0.05	0.06	0.07
Vet & medicine	0.06	0.06	0.06	0.05	0.05	0.06
Other inputs cow calf enterprise	0.21	0.20	0.19	0.19	0.19	0.20
Labour						
Paid Labour	0.24	0.25	0.24	0.23	0.22	0.24
Unpaid Labour	1.10	1.13	1.08	1.04	1.01	1.07
<b>Total Variable Costs</b>	<b>2.7</b>	<b>2.8</b>	<b>2.5</b>	<b>2.4</b>	<b>2.4</b>	<b>2.6</b>
<b>CAPITAL COSTS</b>						
Insurance, taxes	0.44	0.46	0.43	0.42	0.40	0.43
Buildings (maintenance, depreciation)	0.36	0.35	0.33	0.32	0.31	0.33
Land Cost						
Rented Land	0.15	0.14	0.12	0.11	0.10	0.13
Owned Land	0.41	0.40	0.39	0.38	0.38	0.39
Capital Costs						
Liabilities	0.14	0.17	0.18	0.17	0.16	0.16
Own capital	0.18	0.18	0.19	0.18	0.18	0.18
<b>Total Capital Costs</b>	<b>1.7</b>	<b>1.7</b>	<b>1.6</b>	<b>1.6</b>	<b>1.5</b>	<b>1.6</b>
<b>COSTS</b>						
Cash Costs	2.08	2.15	1.98	1.89	1.85	1.99
Depreciation Costs	0.66	0.60	0.55	0.53	0.52	0.57
Opportunity Costs	1.68	1.72	1.65	1.60	1.56	1.64
<b>Total Production Costs</b>	<b>4.42</b>	<b>4.47</b>	<b>4.19</b>	<b>4.02</b>	<b>3.92</b>	<b>4.20</b>
<b>Profits</b>	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>5-yr. avg.</b>
<b>Short-term profit (cash costs)</b>	1.63	0.68	0.30	0.43	0.34	0.67
<b>Medium-term profit (cash + depreciation)</b>	0.96	0.08	(0.25)	(0.10)	(0.18)	0.10
<b>Long-term profit (cash + depreciation + opportunity)</b>	(0.72)	(1.63)	(1.91)	(1.70)	(1.74)	(1.54)

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

Open 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.

