

# Dairy Cost Study

## Alberta Benchmarks

Historical Reflection 2015-2019



Alberta Agriculture and Forestry, Government of Alberta  
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Report also found at: [www.alberta.ca/agriprofits-dairy.aspx](http://www.alberta.ca/agriprofits-dairy.aspx)

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## Overview

This Dairy Cost Study, Alberta Benchmarks Historical Reflection document reports a five-year summary of the costs and returns of producing milk in Alberta.

The Dairy Cost Study is an annual program offered to dairy farmers undertaken by the Economics and Competitiveness Branch of Agriculture and Forestry. Participants on the Dairy Cost Study provide information on the costs and returns of producing milk at their farm. This report represents the aggregated results and consists of a series of tables with average historic provincial data showing revenues and selected costs for the past five years.

The value of looking at historical results of cost of production is to better understand fluctuations in the farm business. Profitability can vary widely from year to year. Each year is different and is dependent on the relationships between costs (weather conditions, prices of feed, value of livestock, competitive marketplace, unexpected repairs, etc.) as well as the producer's financial situation. One tends to remember particularly positive years or negative years. Keeping annual records and then looking at them in a longer timeframe makes businesses proactive in managing periods of flux.

Farm ID#: Alberta Average

FARM REVENUE, EXPENSES AND NET INCOME: 2015 TO 2019 (total dollars)

Year	2015 total \$\$	2016 total \$\$	2017 total \$\$	2018 total \$\$	2019 total \$\$	5 Yr Avg. total \$\$
<b>REVENUE</b>	\$	\$	\$	\$	\$	\$
Milk Sales	1,084,127.51	1,184,941.88	1,215,184.68	1,277,643.56	1,556,534.89	1,263,682.19
Other Cash Revenue	99,496.02	83,010.16	76,025.73	61,141.41	77,884.39	79,512.28
Inventory Change	18,655.69	11,527.77	34,443.21	26,206.71	22,698.49	22,682.51
<b>Total Revenue</b>	<b>1,202,279.22</b>	<b>1,279,479.81</b>	<b>1,325,653.62</b>	<b>1,364,991.68</b>	<b>1,657,117.77</b>	<b>1,365,876.98</b>
<b>EXPENSES</b>						
Grain	59,841.84	75,157.04	64,376.18	82,769.32	82,464.46	72,964.56
Roughage	186,820.07	193,991.51	156,135.15	207,932.20	257,016.86	200,981.71
Other Feeds	219,577.11	226,327.06	248,265.40	275,011.71	339,060.85	261,648.91
<b>Total Feed Costs</b>	<b>466,239.02</b>	<b>495,475.61</b>	<b>468,776.73</b>	<b>565,713.23</b>	<b>678,542.17</b>	<b>535,595.18</b>
Variable Costs	268,745.31	313,170.01	305,979.04	331,362.20	398,261.91	323,506.36
Hired Labour	43,396.19	50,921.22	56,430.61	56,608.69	79,294.71	57,330.29
Capital Costs (cash)	47,539.88	52,857.68	52,302.54	50,224.79	69,450.16	54,644.09
<b>Grand Total Cash Costs</b>	<b>825,920.40</b>	<b>912,424.52</b>	<b>883,488.92</b>	<b>1,003,908.91</b>	<b>1,225,548.95</b>	<b>971,075.92</b>
Depreciation	116,429.70	147,706.46	137,012.71	143,764.76	192,707.09	147,524.14
Family Labour	118,330.26	119,916.42	129,714.54	138,020.58	153,741.74	131,944.71
<b>Total NonCash Costs</b>	<b>234,759.96</b>	<b>267,622.88</b>	<b>266,727.25</b>	<b>281,785.34</b>	<b>346,448.83</b>	<b>279,468.85</b>
<b>Grand Total Expenses</b>	<b>1,060,680.36</b>	<b>1,180,047.40</b>	<b>1,150,216.17</b>	<b>1,285,694.25</b>	<b>1,571,997.78</b>	<b>1,250,544.77</b>
<b>NET FARM INCOME</b>	<b>141,598.86</b>	<b>99,432.41</b>	<b>175,437.45</b>	<b>79,297.43</b>	<b>85,119.99</b>	<b>115,332.21</b>

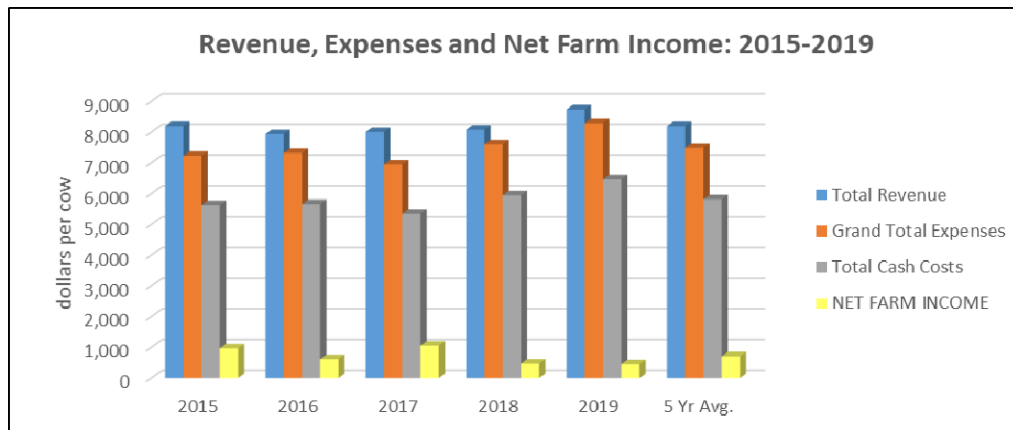
ANNUAL HIGHLIGHTS: 2015 TO 2019

Year	2015	2016	2017	2018	2019	5 Yr Avg.
Herd Size	146	161	165	169	189	166
Total Milk Sales (hL)	13490.11	14974.2	15271.87	16107.72	19526.05	16205.7
Production per Cow (litres/yr)	9477.69	9520.86	9480.05	9794.44	10297.13	9718.17
Avg. Butterfat Test (%)	4.03	4.07	4.15	4.19	4.2	4.13
Milk Price	80.61	79.16	79.61	79.41	81.76	80.44
Total Person Equivalents	2.98	3.34	3.45	3.52	4.03	3.46

Farm ID#: Alberta Average

FARM REVENUE, EXPENSES AND NET INCOME: 2015 TO 2019 (per cow)

Year	2015 per cow	2016 per cow	2017 per cow	2018 per cow	2019 per cow	5 Yr Avg. per cow
<b>REVENUE</b>	\$	\$	\$	\$	\$	\$
Milk Sales	7,389.81	7,348.65	7,338.81	7,561.79	8,208.44	7,572.70
Other Cash Revenue	678.20	514.80	459.14	361.87	410.73	485.25
Inventory Change	127.16	71.49	208.01	155.11	119.70	136.17
<b>Total Revenue</b>	<b>8,195.17</b>	<b>7,934.94</b>	<b>8,005.96</b>	<b>8,078.77</b>	<b>8,738.87</b>	<b>8,194.12</b>
<b>EXPENSES</b>						
Grain	407.90	466.10	388.78	489.87	434.88	437.98
Roughage	1,273.43	1,203.08	942.94	1,230.66	1,355.39	1,205.56
Other Feeds	1,496.72	1,403.61	1,499.33	1,627.66	1,788.05	1,563.72
<b>Total Feed Costs</b>	<b>3,178.05</b>	<b>3,072.79</b>	<b>2,831.05</b>	<b>3,348.19</b>	<b>3,578.32</b>	<b>3,207.26</b>
Variable Costs	1,831.86	1,942.18	1,847.88	1,961.18	2,100.25	1,937.51
Hired Labour	295.80	315.80	340.80	335.04	418.16	341.25
Capital Costs (cash)	324.05	327.80	315.87	297.26	366.25	327.44
<b>Grand Total Cash Costs</b>	<b>5,629.76</b>	<b>5,658.57</b>	<b>5,335.60</b>	<b>5,941.67</b>	<b>6,462.98</b>	<b>5,813.46</b>
Depreciation	793.63	916.03	827.45	850.88	1,016.25	881.19
Family Labour	806.58	743.68	783.38	816.88	810.76	792.61
<b>Total NonCash Costs</b>	<b>1,600.21</b>	<b>1,659.71</b>	<b>1,610.83</b>	<b>1,667.76</b>	<b>1,827.01</b>	<b>1,673.80</b>
<b>Grand Total Expenses</b>	<b>7,229.97</b>	<b>7,318.28</b>	<b>6,946.43</b>	<b>7,609.43</b>	<b>8,289.99</b>	<b>7,487.26</b>
<b>NET FARM INCOME</b>	<b>965.20</b>	<b>616.66</b>	<b>1,059.53</b>	<b>469.34</b>	<b>448.88</b>	<b>706.86</b>



Farm ID#: Alberta Average

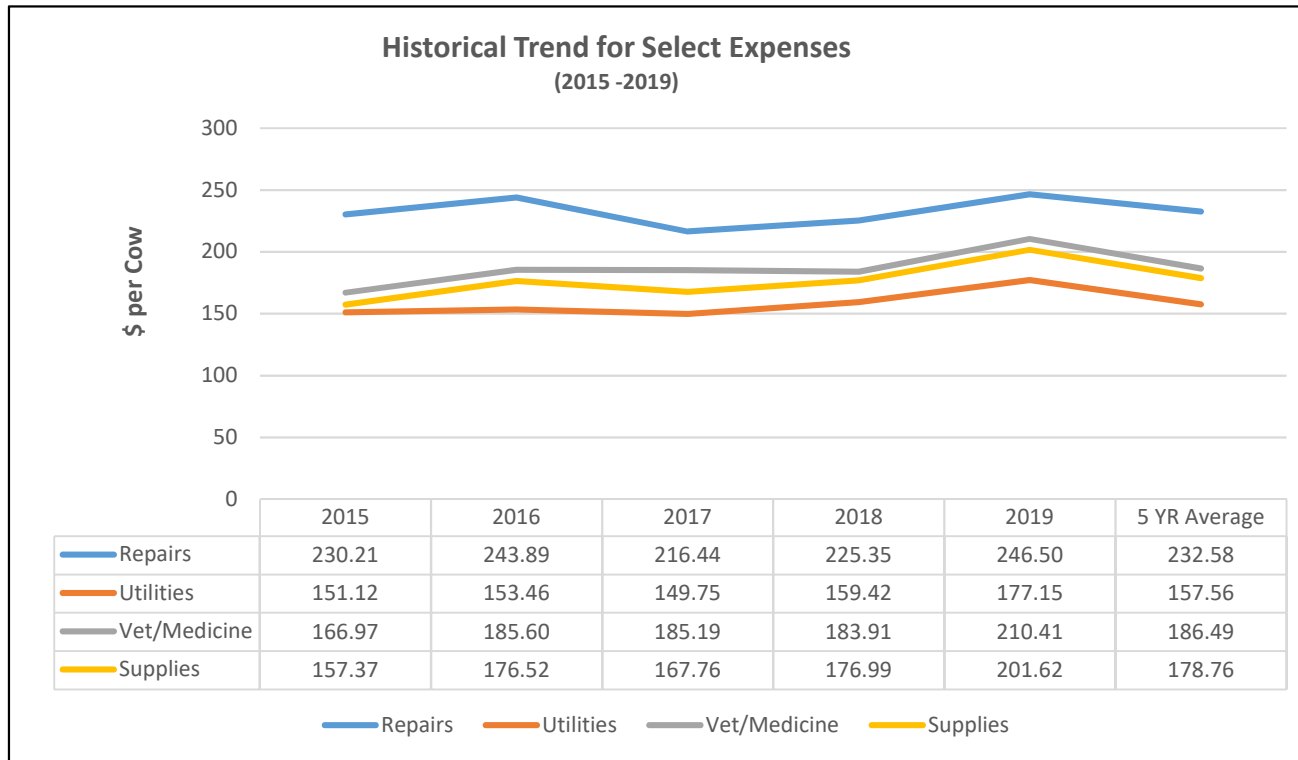
**FARM REVENUE, EXPENSES AND NET INCOME: 2015 TO 2019 (per hL sold)**

Year	2015 per hL sold	2016 per hL sold	2017 per hL sold	2018 per hL sold	2019 per hL sold	5 Yr Avg. per hL sold
<b>REVENUE</b>	\$	\$	\$	\$	\$	\$
Milk Sales	80.36	79.13	79.57	79.32	81.73	80.02
Other Cash Revenue	7.37	5.54	4.98	3.79	4.09	5.16
Inventory Change	1.38	0.77	2.26	1.63	1.19	1.44
<b>Total Revenue</b>	<b>89.11</b>	<b>85.44</b>	<b>86.81</b>	<b>84.74</b>	<b>87.01</b>	<b>86.62</b>
<b>EXPENSES</b>						
Grain	4.44	5.02	4.22	5.14	4.33	4.63
Roughage	13.85	12.96	10.22	12.91	13.50	12.73
Other Feeds	16.28	15.11	16.26	17.08	17.80	16.51
<b>Total Feed Costs</b>	<b>34.57</b>	<b>33.09</b>	<b>30.70</b>	<b>35.13</b>	<b>35.63</b>	<b>33.87</b>
Variable Costs	19.92	20.91	20.04	20.57	20.91	20.47
Hired Labour	3.22	3.40	3.70	3.51	4.16	3.60
Capital Costs (cash)	3.52	3.53	3.42	3.12	3.64	3.45
<b>Grand Total Cash Costs</b>	<b>61.23</b>	<b>60.93</b>	<b>57.86</b>	<b>62.33</b>	<b>64.34</b>	<b>61.39</b>
Depreciation	8.63	9.86	8.97	8.93	10.12	9.30
Family Labour	8.77	8.01	8.49	8.57	8.07	8.38
<b>Total NonCash Costs</b>	<b>17.40</b>	<b>17.87</b>	<b>17.46</b>	<b>17.50</b>	<b>18.19</b>	<b>17.68</b>
<b>Grand Total Expenses</b>	<b>78.63</b>	<b>78.80</b>	<b>75.32</b>	<b>79.83</b>	<b>82.53</b>	<b>79.07</b>
<b>NET FARM INCOME</b>	<b>10.48</b>	<b>6.64</b>	<b>11.49</b>	<b>4.91</b>	<b>4.48</b>	<b>7.55</b>

**DEFINITIONS**

Other Cash Revenue	colostrum sales, BSE payments, net cattle sales, milk quality bonus, environmental compliance, WMP adjustment
Inventory Change	value of closing livestock inventory less opening value of livestock inventory
Other Feeds	supplement, calf feed, milk replacer, salt, minerals, vitamins
Capital Costs (Cash Expense)	rent, leases, taxes, insurance, licences, capital interest
Variable Costs	"other" variable costs plus feed processing costs
Net Farm Income (\$)	gross income less total production costs (also called return to equity)
5 Yr Avg.	Straight average of the past five years (differences due to depth of rounding numbers)

**HISTORICAL TREND FOR SELECT EXPENSES: 2015 TO 2019 (\$ per Cow)**



**ANNUAL OBSERVATIONS**

- 2015 cow sale values are higher due to higher beef market values; extra income from cattle sales; seeing investment in farm improvements
- 2016 continual growth in demand for milk; request for higher butterfat %; multiple quota increases and incentive days; high feed prices
- 2017 demand for milk continues; new Class 7 price effective February; feed prices decline; investment seen in livestock
- 2018 interprovincial hauling charge in effect Sept, 2018; utilities increased 39% from 2017 according to Farm Input Prices; unprecedented high hay prices
- 2019 increase in milk price, high demand for milk continues, high feed prices remain due to another poor crop season