

Southern Alberta
2019 Dairy Cost Study - Business Analysis
25 Participants
Table 1 Dairy Enterprise Costs and Returns

| | TOTAL ENTERPRISE | PER COW | PER HL SOLD | PERCENT FROM INCOME |
|--|---------------------|-----------------|----------------|------------------------|
| INCOME: | | | | |
| MILK SALES | 1,410,816.63 | 8,699.62 | 81.67 | |
| POOL ADJUSTMENTS (+ -) | 465.64 | 2.87 | .03 | |
| MISCELLANEOUS RECEIPTS | 6,308.25 | 38.90 | .37 | |
| NET CATTLE SALES (+ -) | 52,334.94 | 322.72 | 3.03 | |
| NET INVENTORY CHANGE (+ -) | 12,618.53 | 77.81 | .73 | |
| GROSS INCOME ----- | 1,482,543.98 | 9,141.91 | 85.82 | 100.00 |
| EXPENSES: | | | | |
| GRAIN | 72,704.39 | 448.32 | 4.21 | |
| COMPLETE FEED | 220,732.91 | 1,361.12 | 12.78 | |
| SUPPLEMENT | 72,626.70 | 447.84 | 4.20 | |
| MINERALS & VITAMINS | 24,475.41 | 150.92 | 1.42 | |
| ROUGHAGE | 251,579.46 | 1,551.33 | 14.56 | |
| PROCESSING COSTS | 1,675.77 | 10.33 | .10 | |
| TOTAL FEED COSTS ----- | 643,794.65 | 3,969.88 | 37.27 | 43.42 |
| BEDDING AND SUPPLIES | 60,630.20 | 373.87 | 3.51 | |
| BREEDING | 18,282.87 | 112.74 | 1.06 | |
| VET. AND MEDICINE | 33,953.89 | 209.37 | 1.97 | |
| MILK HAULING | 63,561.05 | 391.94 | 3.68 | |
| PRODUCER'S FEES | 37,342.62 | 230.27 | 2.16 | |
| UTILITIES | 28,549.70 | 176.05 | 1.65 | |
| FUEL, OIL, LUBE | 21,476.35 | 132.43 | 1.24 | |
| BLDG. & MACH. REPAIRS | 36,069.57 | 222.42 | 2.09 | |
| MISCELLANEOUS | 42,516.29 | 262.17 | 2.46 | |
| TOTAL OTHER VARIABLE COSTS ---- | 342,382.53 | 2,111.26 | 19.82 | 23.09 |
| HIRED LABOUR | 48,007.68 | 296.03 | 2.78 | |
| FAMILY LABOUR | 165,406.09 | 1,019.95 | 9.57 | |
| TOTAL LABOUR COSTS ----- | 213,413.77 | 1,315.99 | 12.35 | 14.40 |
| TOTAL VARIABLE COSTS | 1,199,590.95 | 7,397.12 | 69.44 | 80.91 |
| RENT | 1,610.46 | 9.93 | .09 | |
| TAXES AND INSURANCE | 22,657.00 | 139.71 | 1.31 | |
| DEPRECIATION | 168,229.56 | 1,037.37 | 9.74 | |
| INTEREST (CAP.DEBT) | 27,977.25 | 172.52 | 1.62 | |
| TOTAL CAPITAL COSTS ----- | 220,474.27 | 1,359.53 | 12.76 | 14.87 |
| TOTAL PRODUCTION COSTS | 1,420,065.22 | 8,756.65 | 82.20 | 95.79 |
| CONTRIBUTION MARGIN (\$) | 282,953.03 | 1,744.79 | 16.38 | |
| RETURN TO EQUITY (\$) | 62,478.76 | 385.27 | 3.62 | 4.21 |
| MILK PRICE | | | 81.70 | |
| INVENTORY ADJUSTMENT | | | 4.13 | |
| RETURN TO EQUITY (%) | | | 2.60 | |
| AVERAGE CAP. DEBT INTEREST RATE (%) | | | 3.41 | |

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Table 2 Statement of Investment**

| <u>LAND BUILDINGS & EQUIPMENT</u> | AGE | DEPRECIATION | DAIRY INVESTMENT |
|---------------------------------------|--------------|-------------------|---------------------|
| DAIRY BUILDINGS | 10.40 | 83,701.88 | 2,048,980.73 |
| POWER MACHINERY | 8.71 | 31,037.27 | 199,550.22 |
| DAIRY EQUIPMENT | 13.07 | 34,372.46 | 125,619.44 |
| OTHER EQUIPMENT | 9.61 | 19,117.96 | 80,902.60 |
| TOTAL EQUIPMENT | 10.38 | 84,527.68 | 406,072.26 |
| LAND | | | 180,690.00 |
| SUPPLIES | | | 15,493.81 |
| ** SUBTOTAL ** | | 168,229.56 | 2,651,236.79 |

| <u>DAIRY LIVESTOCK</u> | --- BEGIN YEAR --- | | --- END OF YEAR --- | | AVERAGE |
|------------------------|--------------------|-------------------|---------------------|-------------------|-------------------|
| | NUMBER | VALUE | NUMBER | VALUE | VALUE |
| COWS | 162.28 | 370,922.43 | 164.48 | 375,950.95 | 373,436.69 |
| BRED HEIFERS | 52.48 | 104,960.00 | 55.56 | 111,120.00 | 108,040.00 |
| OPEN HEIFERS | 61.36 | 73,632.00 | 61.80 | 74,160.00 | 73,896.00 |
| HEIFER CALVES | 35.20 | 14,080.00 | 36.96 | 14,784.00 | 14,432.00 |
| BULL CALVES | 4.68 | 702.00 | 6.40 | 960.00 | 831.00 |
| BULLS | 3.48 | 5,220.00 | 3.44 | 5,160.00 | 5,190.00 |
| ** SUBTOTAL ** | 319.48 | 569,516.43 | 328.64 | 582,134.95 | 575,825.69 |

| | |
|-------------------------------------|---------------------|
| TOTAL DAIRY INVESTMENT ----- | 3,227,062.48 |
| CAPITAL LOANS | 819,994.32 |
| OPERATOR EQUITY | 2,407,068.16 |
| INVESTMENT PER COW | 19,899.26 |
| DEBT/CAPITAL RATIO | .25 |
| CAPITAL TURNOVER (YR) | 2.18 |

| <u>HERD SIZE</u> | Average | Median |
|-------------------------|---------|--------|
| NUMBER OF DAIRY COWS | 162.17 | 144.25 |
| NUMBER OF ANIMAL UNITS | 258.30 | 224.42 |
| DRY COWS (%) | 15.56 | |
| CALF CROP (%) | 107.54 | |
| PASTURE PER COW (AC.) | .24 | |

| <u>CATTLE SALES & PURCHASES</u> | NUMBER SOLD | SELLING PRICE | NUMBER PURCHASED | PURCHASE PRICE |
|-------------------------------------|----------------|------------------|---------------------|-------------------|
| COWS | 49.72 | 1,070.38 | 3.20 | 2,401.25 |
| BRED HEIFERS | 1.88 | 1,024.15 | 2.16 | 2,259.26 |
| OPEN HEIFERS | 3.04 | 962.47 | 1.08 | 749.26 |
| HEIFER CALVES | .64 | 266.88 | .00 | .00 |
| BULL CALVES | 50.72 | 188.95 | .00 | .00 |
| BULLS | 2.08 | 1,678.28 | 2.00 | 2,804.00 |
| TOTAL VALUE | | 71,316.14 | | 18,981.20 |

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Table 3 Labour and Management**

LABOUR

| | HOURS | VALUE | HOURLY RATE |
|-------------------------|-----------------|-------------------|--------------|
| OPERATOR LABOUR | 3,702.94 | 85,945.24 | 23.21 |
| HIRED LABOUR | 2,110.29 | 48,007.68 | 22.75 |
| FAMILY UNPAID LABOUR | 3,444.28 | 79,460.85 | 23.07 |
| TOTAL | 9,257.51 | 213,413.77 | 23.05 |
| RETURN TO FAMILY LABOUR | (5.16) | | |
| MAN EQUIVALENTS | 3.70 | | |
| LABOUR HOURS PER COW | 57.09 | | |
| YEARS FARMING | 25.30 | | |

MILK PRODUCTION

| | HL. | % OF TOTAL | VALUE | AVERAGE PRICE / HL |
|---------------------|------------------|---------------|--------------|--------------------|
| MILK SALES | 17,274.81 | 97.62 | 1,410,816.63 | 81.67 |
| OTHER MILK PRODUCED | 421.24 | 2.38 | | |
| TOTAL | 17,696.05 | 100.00 | | |

AVERAGE COMPONENT PRICES (\$ / KG)

| | | |
|-------------------------|-------------------------|-------|
| BUTTERFAT TEST | 4.14 KG / HL | 16.75 |
| PROTEIN | 3.17 KG / HL | 2.59 |
| L.O.S. | 5.88 KG / HL | .70 |
| MILK PRODUCTION PER COW | 10,912.04 LITRES / YEAR | |

QUOTA INFORMATION

| | |
|--------------|-------------------------|
| CDQ HOLDINGS | 189.79 KG / DAY |
| CDQ PRICE | 40,671.84 \$ / KG / DAY |
| CREDIT PRICE | 6.75 \$ / KG |

MANAGEMENT FACTORS

| | |
|-------------------------|---------------|
| COST PER HL | 82.20 |
| MILK/FEED (KG) RATIO | 2.34 LITRES |
| MILK/LABOUR (HR) RATIO | 191.15 LITRES |
| MILK/CAPITAL (\$) RATIO | .55 LITRES |

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Table 4 Feed Report**

| <u>CONCENTRATES</u> | --- PURCHASED --- | | --- HOMEGROWN--- | |
|-------------------------------------|----------------------|-------------------|----------------------|-------------------|
| | QUANTITY (TONNES) | PRICE | QUANTITY (TONNES) | PRICE |
| OATS | .07 | 223.00 | .00 | .00 |
| BARLEY | 48.46 | 241.57 | 83.77 | 242.76 |
| WHEAT | .04 | 220.00 | .17 | 241.09 |
| MIXED GRAIN | .00 | .00 | .00 | .00 |
| BREW GRAIN (DRY EQ.) | 9.82 | 183.96 | | |
| BEET PULP | .10 | 255.00 | | |
| OTHER PURCHASED | 96.48 | 401.84 | | |
| | | | | |
| DAIRY RATION | 356.32 | 541.34 | | |
| CALF FEED | 22.07 | 663.90 | | |
| MILK REPLACER | 3.82 | 3,457.27 | | |
| SUPPLEMENT | 96.29 | 687.34 | | |
| MOLASSES | 20.16 | 319.40 | | |
| SALT | 1.67 | 487.25 | | |
| MINERALS & VITAMINS | 18.35 | 1,289.15 | | |
| | | | | |
| SUBTOTAL ----- | 673.65 | 370,162.57 | 83.94 | 20,376.84 |
| | | | | |
| <u>ROUGHAGE</u> | | | | |
| HAY (ALL VARIETIES) | 287.59 | 222.52 | 123.46 | 238.47 |
| ALFALFA PELLETS | .00 | .00 | | |
| STRAW FED | 23.63 | 90.15 | 35.49 | 86.65 |
| GREENFEED | .00 | .00 | 5.78 | 165.37 |
| SILAGE/HAYLAGE (DRY EQ.) | 195.24 | 138.79 | 582.88 | 214.25 |
| | | | | |
| SUBTOTAL ----- | 506.47 | 93,222.81 | 747.61 | 158,356.65 |
| | | | | |
| GRINDING & PROCESSING | | 1,675.77 | | |
| | | | | |
| GRAND TOTAL FEED COSTS ----- | | 465,061.16 | | 178,733.49 |
| | | | | |
| BEDDING | 248.98 | 81.13 | 39.77 | 88.35 |
| | | | | |
| AV. PRICE: | CONCENTRATE | 515.50 \$/TONNE | | |
| | ROUGHAGE | 200.61 \$/TONNE | | |
| | | | | |
| FED PER COW: | CONCENTRATE | 4.67 TONNES | | |
| | ROUGHAGE | 7.73 TONNES | | |
| | | | | |
| % HOME GROWN: | CONCENTRATE | 11.08 % | | |
| | ROUGHAGE | 59.61 % | | |