

Northern Alberta
2019 Dairy Cost Study - Business Analysis
12 Participants
Table 1 Dairy Enterprise Costs and Returns

| | TOTAL ENTERPRISE | PER COW | PER HL SOLD | PERCENT FROM INCOME |
|--|---------------------|-----------------|----------------|------------------------|
| INCOME: | | | | |
| MILK SALES | 1,860,114.60 | 7,536.13 | 81.83 | |
| POOL ADJUSTMENTS (+ -) | 526.37 | 2.13 | .02 | |
| MISCELLANEOUS RECEIPTS | 9,408.38 | 38.12 | .41 | |
| NET CATTLE SALES (+ -) | 107,065.39 | 433.77 | 4.71 | |
| NET INVENTORY CHANGE (+ -) | 43,260.04 | 175.27 | 1.90 | |
| GROSS INCOME ----- | 2,020,374.78 | 8,185.41 | 88.88 | 100.00 |
| EXPENSES: | | | | |
| GRAIN | 102,797.96 | 416.48 | 4.52 | |
| COMPLETE FEED | 281,549.80 | 1,140.68 | 12.39 | |
| SUPPLEMENT | 90,817.67 | 367.94 | 4.00 | |
| MINERALS & VITAMINS | 10,913.84 | 44.22 | .48 | |
| ROUGHAGE | 268,344.77 | 1,087.18 | 11.80 | |
| PROCESSING COSTS | 18,873.66 | 76.47 | .83 | |
| TOTAL FEED COSTS ----- | 773,297.70 | 3,132.96 | 34.02 | 38.27 |
| BEDDING AND SUPPLIES | 71,561.51 | 289.93 | 3.15 | |
| BREEDING | 28,152.79 | 114.06 | 1.24 | |
| VET. AND MEDICINE | 52,283.74 | 211.82 | 2.30 | |
| MILK HAULING | 81,996.18 | 332.20 | 3.61 | |
| PRODUCER'S FEES | 49,013.92 | 198.58 | 2.16 | |
| UTILITIES | 44,098.26 | 178.66 | 1.94 | |
| FUEL, OIL, LUBE | 22,762.80 | 92.22 | 1.00 | |
| BLDG. & MACH. REPAIRS | 68,980.26 | 279.47 | 3.03 | |
| MISCELLANEOUS | 73,462.95 | 297.63 | 3.23 | |
| TOTAL OTHER VARIABLE COSTS ---- | 492,312.41 | 1,994.57 | 21.66 | 24.37 |
| HIRED LABOUR | 144,476.03 | 585.33 | 6.36 | |
| FAMILY LABOUR | 129,441.02 | 524.42 | 5.69 | |
| TOTAL LABOUR COSTS ----- | 273,917.04 | 1,109.76 | 12.05 | 13.56 |
| TOTAL VARIABLE COSTS | 1,539,527.15 | 6,237.29 | 67.72 | 76.20 |
| RENT | 6,728.19 | 27.26 | .30 | |
| TAXES AND INSURANCE | 37,028.38 | 150.02 | 1.63 | |
| DEPRECIATION | 243,701.93 | 987.34 | 10.72 | |
| INTEREST (CAP.DEBT) | 61,538.31 | 249.32 | 2.71 | |
| TOTAL CAPITAL COSTS ----- | 348,996.80 | 1,413.94 | 15.35 | 17.27 |
| TOTAL PRODUCTION COSTS | 1,888,523.95 | 7,651.22 | 83.08 | 93.47 |
| CONTRIBUTION MARGIN (\$) | 480,847.63 | 1,948.12 | 21.15 | |
| RETURN TO EQUITY (\$) | 131,850.83 | 534.18 | 5.80 | 6.53 |
| MILK PRICE | | | 81.85 | |
| INVENTORY ADJUSTMENT | | | 7.03 | |
| RETURN TO EQUITY (%) | | | 4.59 | |
| AVERAGE CAP. DEBT INTEREST RATE (%) | | | 3.21 | |

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Table 2 Statement of Investment**

| <u>LAND BUILDINGS & EQUIPMENT</u> | AGE | DEPRECIATION | DAIRY INVESTMENT |
|---------------------------------------|--------------|-------------------|---------------------|
| DAIRY BUILDINGS | 10.51 | 133,974.95 | 3,282,555.48 |
| POWER MACHINERY | 9.35 | 36,073.62 | 229,594.84 |
| DAIRY EQUIPMENT | 13.65 | 42,674.45 | 151,816.89 |
| OTHER EQUIPMENT | 9.02 | 30,978.90 | 134,119.09 |
| TOTAL EQUIPMENT | 10.62 | 109,726.97 | 515,530.83 |
| LAND | | | 160,816.67 |
| SUPPLIES | | | 26,569.16 |
| ** SUBTOTAL ** | | 243,701.93 | 3,985,472.13 |

| <u>DAIRY LIVESTOCK</u> | --- BEGIN YEAR --- | | --- END OF YEAR --- | | AVERAGE |
|------------------------|--------------------|-------------------|---------------------|-------------------|-------------------|
| | NUMBER | VALUE | NUMBER | VALUE | VALUE |
| COWS | 246.25 | 523,396.80 | 254.33 | 540,577.68 | 531,987.24 |
| BRED HEIFERS | 73.33 | 146,666.67 | 85.50 | 171,000.00 | 158,833.33 |
| OPEN HEIFERS | 62.58 | 75,100.00 | 65.67 | 78,800.00 | 76,950.00 |
| HEIFER CALVES | 92.33 | 36,933.33 | 83.92 | 33,566.67 | 35,250.00 |
| BULL CALVES | 35.00 | 5,250.00 | 42.75 | 6,412.50 | 5,831.25 |
| BULLS | .58 | 875.00 | .75 | 1,125.00 | 1,000.00 |
| ** SUBTOTAL ** | 510.08 | 788,221.80 | 532.92 | 831,481.84 | 809,851.82 |

| | |
|-------------------------------------|---------------------|
| TOTAL DAIRY INVESTMENT ----- | 4,795,323.96 |
| CAPITAL LOANS | 1,920,011.89 |
| OPERATOR EQUITY | 2,875,312.07 |
| INVESTMENT PER COW | 19,427.92 |
| DEBT/CAPITAL RATIO | .40 |
| CAPITAL TURNOVER (YR) | 2.37 |

| <u>HERD SIZE</u> | Average | Median |
|-------------------------|---------|--------|
| NUMBER OF DAIRY COWS | 246.83 | 143.08 |
| NUMBER OF ANIMAL UNITS | 390.58 | 217.50 |
| DRY COWS (%) | 23.23 | |
| CALF CROP (%) | 106.76 | |
| PASTURE PER COW (AC.) | .15 | |

| <u>CATTLE SALES & PURCHASES</u> | NUMBER SOLD | SELLING PRICE | NUMBER PURCHASED | PURCHASE PRICE |
|-------------------------------------|----------------|-------------------|---------------------|-------------------|
| COWS | 64.17 | 1,261.87 | .00 | .00 |
| BRED HEIFERS | 3.25 | 1,945.67 | 2.67 | 2,700.00 |
| OPEN HEIFERS | 11.00 | 1,169.51 | .00 | .00 |
| HEIFER CALVES | 9.17 | 270.96 | .00 | .00 |
| BULL CALVES | 67.83 | 168.83 | .00 | .00 |
| BULLS | .25 | 1,451.67 | .08 | 2,300.00 |
| TOTAL VALUE | | 114,457.06 | | 7,391.67 |

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Table 3 Labour and Management

LABOUR

| | HOURS | VALUE | HOURLY RATE |
|-------------------------|------------------|-------------------|--------------|
| OPERATOR LABOUR | 3,090.50 | 71,730.51 | 23.21 |
| HIRED LABOUR | 6,204.99 | 144,476.03 | 23.28 |
| FAMILY UNPAID LABOUR | 2,505.21 | 57,710.51 | 23.04 |
| TOTAL | 11,800.70 | 273,917.04 | 23.21 |
| RETURN TO FAMILY LABOUR | (9.83) | | |
| MAN EQUIVALENTS | 4.72 | | |
| LABOUR HOURS PER COW | 47.81 | | |
| YEARS FARMING | 29.13 | | |

MILK PRODUCTION

| | HL. | % OF TOTAL | VALUE | AVERAGE PRICE / HL |
|---------------------|------------------|---------------|--------------|--------------------|
| MILK SALES | 22,732.37 | 97.40 | 1,860,114.60 | 81.83 |
| OTHER MILK PRODUCED | 606.17 | 2.60 | | |
| TOTAL | 23,338.54 | 100.00 | | |

AVERAGE COMPONENT PRICES (\$ / KG)

| | | |
|-------------------------|------------------------|-------|
| BUTTERFAT TEST | 4.31 KG / HL | 16.75 |
| PROTEIN | 3.27 KG / HL | 2.56 |
| L.O.S. | 5.87 KG / HL | .70 |
| MILK PRODUCTION PER COW | 9,455.45 LITRES / YEAR | |

QUOTA INFORMATION

| | |
|--------------|-------------------------|
| CDQ HOLDINGS | 253.25 KG / DAY |
| CDQ PRICE | 39,264.86 \$ / KG / DAY |
| CREDIT PRICE | 6.38 \$ / KG |

MANAGEMENT FACTORS

| | |
|-------------------------|---------------|
| COST PER HL | 83.08 |
| MILK/FEED (KG) RATIO | 2.05 LITRES |
| MILK/LABOUR (HR) RATIO | 197.77 LITRES |
| MILK/CAPITAL (\$) RATIO | .49 LITRES |

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Table 4 Feed Report**

| <u>CONCENTRATES</u> | --- PURCHASED --- | | --- HOMEGROWN--- | |
|-------------------------------------|----------------------|-------------------|----------------------|-------------------|
| | QUANTITY (TONNES) | PRICE | QUANTITY (TONNES) | PRICE |
| OATS | .00 | .00 | .00 | .00 |
| BARLEY | 330.71 | 211.47 | 32.69 | 217.44 |
| WHEAT | .00 | .00 | 16.82 | 221.85 |
| MIXED GRAIN | .00 | .00 | .00 | .00 |
| BREW GRAIN (DRY EQ.) | 6.39 | 199.73 | | |
| BEET PULP | 7.29 | 251.94 | | |
| OTHER PURCHASED | 72.09 | 262.31 | | |
| | | | | |
| DAIRY RATION | 468.07 | 573.81 | | |
| CALF FEED | 12.86 | 744.94 | | |
| MILK REPLACER | 1.03 | 3,282.92 | | |
| SUPPLEMENT | 179.25 | 498.66 | | |
| MOLASSES | 4.22 | 338.95 | | |
| SALT | 3.07 | 914.93 | | |
| MINERALS & VITAMINS | 5.33 | 1,521.23 | | |
| | | | | |
| SUBTOTAL ----- | 1,090.32 | 475,239.04 | 49.51 | 10,840.23 |
| | | | | |
| <u>ROUGHAGE</u> | | | | |
| HAY (ALL VARIETIES) | 230.18 | 180.65 | 78.28 | 152.74 |
| ALFALFA PELLETS | .00 | .00 | | |
| STRAW FED | 59.75 | 50.86 | 2.82 | 63.92 |
| GREENFEED | .00 | .00 | .00 | .00 |
| SILAGE/HAYLAGE (DRY EQ.) | 426.50 | 157.93 | 1,045.33 | 137.98 |
| | | | | |
| SUBTOTAL ----- | 716.42 | 111,977.75 | 1,126.43 | 156,367.02 |
| | | | | |
| GRINDING & PROCESSING | | 18,873.66 | | |
| | | | | |
| GRAND TOTAL FEED COSTS ----- | | 606,090.44 | | 167,207.26 |
| | | | | |
| BEDDING | 331.31 | 76.98 | 80.20 | 63.41 |
| | | | | |
| AV. PRICE: | CONCENTRATE | 426.45 \$/TONNE | | |
| | ROUGHAGE | 145.61 \$/TONNE | | |
| | | | | |
| FED PER COW: | CONCENTRATE | 4.62 TONNES | | |
| | ROUGHAGE | 7.47 TONNES | | |
| | | | | |
| % HOME GROWN: | CONCENTRATE | 4.34 % | | |
| | ROUGHAGE | 61.12 % | | |