

Northern Alberta
2017 Dairy Cost Study - Business Analysis
15 Participants
Table 1 Dairy Enterprise Costs and Returns

| | TOTAL ENTERPRISE | PER COW | PER HL SOLD | PERCENT FROM INCOME |
|--|---------------------|-----------------|----------------|------------------------|
| INCOME: | | | | |
| MILK SALES | 1,209,321.17 | 6,456.03 | 79.52 | |
| POOL ADJUSTMENTS (+ -) | 658.81 | 3.52 | .04 | |
| MISCELLANEOUS RECEIPTS | 6,557.61 | 35.01 | .43 | |
| NET CATTLE SALES (+ -) | 133,060.89 | 710.35 | 8.75 | |
| NET INVENTORY CHANGE (+ -) | 13,201.31 | 70.48 | .87 | |
| GROSS INCOME ----- | 1,362,799.79 | 7,275.38 | 89.61 | 100.00 |
| EXPENSES: | | | | |
| GRAIN | 86,101.52 | 459.66 | 5.66 | |
| COMPLETE FEED | 148,626.70 | 793.45 | 9.77 | |
| SUPPLEMENT | 54,741.67 | 292.24 | 3.60 | |
| MINERALS & VITAMINS | 11,704.68 | 62.49 | .77 | |
| ROUGHAGE | 151,425.13 | 808.39 | 9.96 | |
| PROCESSING COSTS | 12,606.30 | 67.30 | .83 | |
| TOTAL FEED COSTS ----- | 465,206.00 | 2,483.53 | 30.59 | 34.14 |
| BEDDING AND SUPPLIES | 42,745.75 | 228.20 | 2.81 | |
| BREEDING | 20,115.11 | 107.39 | 1.32 | |
| VET. AND MEDICINE | 37,356.63 | 199.43 | 2.46 | |
| MILK HAULING | 51,257.83 | 273.64 | 3.37 | |
| PRODUCER'S FEES | 32,546.77 | 173.75 | 2.14 | |
| UTILITIES | 26,252.53 | 140.15 | 1.73 | |
| FUEL, OIL, LUBE | 15,022.20 | 80.20 | .99 | |
| BLDG. & MACH. REPAIRS | 47,147.31 | 251.70 | 3.10 | |
| MISCELLANEOUS | 67,613.65 | 360.96 | 4.45 | |
| TOTAL OTHER VARIABLE COSTS ---- | 340,057.77 | 1,815.42 | 22.36 | 24.95 |
| HIRED LABOUR | 96,574.98 | 515.57 | 6.35 | |
| FAMILY LABOUR | 105,328.67 | 562.30 | 6.93 | |
| TOTAL LABOUR COSTS ----- | 201,903.65 | 1,077.87 | 13.28 | 14.82 |
| TOTAL VARIABLE COSTS | 1,007,167.42 | 5,376.82 | 66.23 | 73.90 |
| RENT | 9,698.50 | 51.78 | .64 | |
| TAXES AND INSURANCE | 31,937.54 | 170.50 | 2.10 | |
| DEPRECIATION | 137,138.24 | 732.12 | 9.02 | |
| INTEREST (CAP.DEBT) | 28,112.64 | 150.08 | 1.85 | |
| TOTAL CAPITAL COSTS ----- | 206,886.92 | 1,104.48 | 13.60 | 15.18 |
| TOTAL PRODUCTION COSTS | 1,214,054.34 | 6,481.29 | 79.83 | 89.09 |
| CONTRIBUTION MARGIN (\$) | 355,632.36 | 1,898.56 | 23.39 | |
| RETURN TO EQUITY (\$) | 148,745.45 | 794.09 | 9.78 | 10.91 |
| MILK PRICE | | | 79.57 | |
| INVENTORY ADJUSTMENT | | | 10.05 | |
| RETURN TO EQUITY (%) | | | 8.05 | |
| AVERAGE CAP. DEBT INTEREST RATE (%) | | | 3.08 | |

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Table 2 Statement of Investment**

| <u>LAND BUILDINGS & EQUIPMENT</u> | AGE | DEPRECIATION | DAIRY INVESTMENT |
|---------------------------------------|--------------|-------------------|---------------------|
| DAIRY BUILDINGS | 12.23 | 67,596.95 | 1,679,499.44 |
| POWER MACHINERY | 9.50 | 20,680.33 | 135,458.97 |
| DAIRY EQUIPMENT | 11.71 | 33,697.78 | 130,817.81 |
| OTHER EQUIPMENT | 8.91 | 15,163.18 | 65,928.79 |
| TOTAL EQUIPMENT | 10.23 | 69,541.29 | 332,205.57 |
| LAND | | | 93,000.00 |
| SUPPLIES | | | 19,939.56 |
| ** SUBTOTAL ** | | 137,138.24 | 2,124,644.57 |

| <u>DAIRY LIVESTOCK</u> | --- BEGIN YEAR --- | | --- END OF YEAR --- | | AVERAGE |
|------------------------|--------------------|-------------------|---------------------|-------------------|-------------------|
| | NUMBER | VALUE | NUMBER | VALUE | VALUE |
| COWS | 183.40 | 409,429.49 | 189.40 | 422,824.13 | 416,126.81 |
| BRED HEIFERS | 46.00 | 92,000.00 | 52.87 | 105,733.33 | 98,866.67 |
| OPEN HEIFERS | 64.47 | 96,700.00 | 54.07 | 81,100.00 | 88,900.00 |
| HEIFER CALVES | 70.47 | 28,186.67 | 73.00 | 29,200.00 | 28,693.33 |
| BULL CALVES | 21.27 | 3,190.00 | 25.00 | 3,750.00 | 3,470.00 |
| BULLS | .87 | 1,300.00 | .93 | 1,400.00 | 1,350.00 |
| ** SUBTOTAL ** | 386.47 | 630,806.16 | 395.27 | 644,007.46 | 637,406.81 |

| | |
|-------------------------------------|---------------------|
| TOTAL DAIRY INVESTMENT ----- | 2,762,051.38 |
| CAPITAL LOANS | 913,383.85 |
| OPERATOR EQUITY | 1,848,667.53 |
| INVESTMENT PER COW | 14,745.36 |
| DEBT/CAPITAL RATIO | .33 |
| CAPITAL TURNOVER (YR) | 2.03 |

| <u>HERD SIZE</u> | Average | Median |
|-------------------------|---------|--------|
| NUMBER OF DAIRY COWS | 187.32 | 117.33 |
| NUMBER OF ANIMAL UNITS | 292.21 | 182.33 |
| DRY COWS (%) | 21.57 | |
| CALF CROP (%) | 101.68 | |
| PASTURE PER COW (AC.) | .17 | |

| <u>CATTLE SALES & PURCHASES</u> | NUMBER SOLD | SELLING PRICE | NUMBER PURCHASED | PURCHASE PRICE |
|-------------------------------------|----------------|-------------------|---------------------|-------------------|
| COWS | 49.60 | 1,883.74 | .33 | 2,200.00 |
| BRED HEIFERS | 8.53 | 2,164.56 | 1.00 | 3,226.67 |
| OPEN HEIFERS | 5.60 | 1,671.84 | .00 | .00 |
| HEIFER CALVES | 4.80 | 1,096.18 | 2.67 | 347.50 |
| BULL CALVES | 53.93 | 220.44 | .00 | .00 |
| BULLS | .07 | 1,200.00 | .20 | 2,750.00 |
| TOTAL VALUE | | 138,497.56 | | 5,436.67 |

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Table 3 Labour and Management

LABOUR

| | HOURS | VALUE | HOURLY RATE |
|-------------------------|-----------------|-------------------|--------------------|
| OPERATOR LABOUR | 2,385.37 | 52,478.07 | 22.00 |
| HIRED LABOUR | 4,416.85 | 96,574.98 | 21.87 |
| FAMILY UNPAID LABOUR | 2,438.20 | 52,850.60 | 21.68 |
| TOTAL | 9,240.42 | 201,903.65 | 21.85 |
| RETURN TO FAMILY LABOUR | 10.52 | | |
| MAN EQUIVALENTS | 3.70 | | |
| LABOUR HOURS PER COW | 49.33 | | |
| YEARS FARMING | 26.17 | | |

MILK PRODUCTION

| | HL. | % OF TOTAL | VALUE | AVERAGE PRICE / HL |
|---------------------|------------------|-------------------|--------------|---------------------------|
| MILK SALES | 15,207.30 | 96.73 | 1,209,321.17 | 79.52 |
| OTHER MILK PRODUCED | 514.66 | 3.27 | | |
| TOTAL | 15,721.96 | 100.00 | | |

AVERAGE COMPONENT PRICES (\$ / KG)

| | | |
|-------------------------|------------------------|-------|
| BUTTERFAT TEST | 4.17 KG / HL | 13.05 |
| PROTEIN | 3.38 KG / HL | 3.16 |
| L.O.S. | 5.73 KG / HL | 2.69 |
| MILK PRODUCTION PER COW | 8,393.25 LITRES / YEAR | |

QUOTA INFORMATION

| | |
|--------------|-------------------------|
| TPQ HOLDINGS | 169.42 KG / DAY |
| TPQ PRICE | 38,118.51 \$ / KG / DAY |
| CREDIT PRICE | 4.74 \$ / KG |

MANAGEMENT FACTORS

| | |
|-------------------------|---------------|
| COST PER HL | 79.83 |
| MILK/FEED (KG) RATIO | 1.93 LITRES |
| MILK/LABOUR (HR) RATIO | 170.14 LITRES |
| MILK/CAPITAL (\$) RATIO | .57 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 | 280.20 | 170.36 | 70.11 | 155.20 |
| WHEAT | .00 | .00 | .70 | 183.99 |
| MIXED GRAIN | .00 | .00 | .00 | .00 |
| BREW GRAIN (DRY EQ.) | 17.10 | 315.32 | | |
| BEET PULP | 6.46 | 299.60 | | |
| OTHER PURCHASED | 57.74 | 346.89 | | |
| | | | | |
| DAIRY RATION | 253.46 | 547.62 | | |
| CALF FEED | 11.96 | 559.97 | | |
| MILK REPLACER | .92 | 3,392.98 | | |
| SUPPLEMENT | 107.54 | 500.36 | | |
| MOLASSES | 2.88 | 323.74 | | |
| SALT | 1.92 | 643.76 | | |
| MINERALS & VITAMINS | 5.72 | 1,830.04 | | |
| | | | | |
| SUBTOTAL ----- | 745.90 | 290,163.14 | 70.82 | 11,011.44 |
| | | | | |
| <u>ROUGHAGE</u> | | | | |
| ALFALFA HAY | 82.52 | 173.84 | 61.01 | 103.90 |
| ALFALFA PELLETS | .00 | .00 | | |
| STRAW FED | 18.97 | 56.11 | 17.64 | 54.25 |
| GREENFEED | 19.26 | 100.00 | .00 | .00 |
| SILAGE/HAYLAGE (DRY EQ.) | 406.59 | 138.93 | 749.06 | 93.86 |
| | | | | |
| SUBTOTAL ----- | 527.35 | 73,824.99 | 827.70 | 77,600.14 |
| | | | | |
| GRINDING & PROCESSING | | 12,606.30 | | |
| | | | | |
| GRAND TOTAL FEED COSTS ----- | | 376,594.43 | | 88,611.58 |
| | | | | |
| BEDDING | 208.30 | 64.91 | 51.48 | 54.38 |
| | | | | |
| AV. PRICE: | CONCENTRATE | 368.76 \$/TONNE | | |
| | ROUGHAGE | 111.75 \$/TONNE | | |
| | | | | |
| FED PER COW: | CONCENTRATE | 4.36 TONNES | | |
| | ROUGHAGE | 7.23 TONNES | | |
| | | | | |
| % HOME GROWN: | CONCENTRATE | 8.67 % | | |
| | ROUGHAGE | 61.08 % | | |