

Dairy Cost of Production Workshop Series 2023

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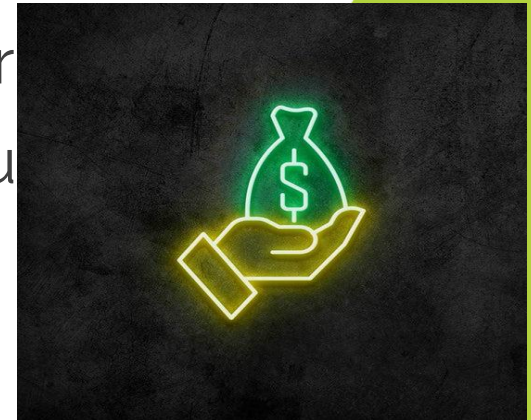


The University of Vermont

General Financial Terms

Income

- **Farm Income** - profits and losses incurred through the operation of a farm or agricultural business
- **Farm Operating Expense** - These include operator labor, machinery, taxes, asset depreciation/capital consumption, rent and interest expenses, chemicals and fertilizer, and anything else a producer spends \$\$ on to make the product sold
- **Net Farm Income From Operations (NFIFO)**
 - \$\$ left after operating expenses are deducted from the gross farm income.



Cash Flow Plans and projections

Defined

- financial planning and forecasting tool
- track potential income, allocate the budget properly
- plan for changes in income or expenses.



Cash Flow Plans

- Reason – to take a “near term view” of the business in the coming year or years. “Something has changed”
- Time Frame – short term 1-3 years
- Usually specific to one or more **known** upcoming changes

Cash Flow Plans

Income changes

- **Revenues**
 - Prices received (up or down forecasts)
- **Expenses**
 - Fuel
 - Feed
 - Interest rates

Cash Flow Plans

Planned changes

- Building new facility
- Adding/decreasing production units
- Changes in efficiencies (use of new technologies)
- Others?

Partial Budgets

What are they?

- **Defined** - a planning and decision-making framework used to compare the costs and benefits of alternatives faced by a farm business.
- Examination of a specific alternative
 - Robotics vs. parlor milking
 - Hand vs automated feeding
 - Others?



Balance Sheets

Defined - a report of the farm business's financial position at a given moment in time. It represents a snapshot of the farm business at a certain point in time.

- **Assets** – items the business owns, with their values
- **Liabilities** - financial obligations (debts) of the farm business that are owed to others.
- **Net worth (owner's equity)** = Farm asset value – farm liabilities against that debt



Balance Sheets

Assets

- **Current Assets** – those that are on farm but would be used within the calendar year
 - Cash on hand
 - Feed inventories
 - Animals scheduled for sale



Balance Sheets – Assets con't

Intermediate Assets – having a useful life of 1-10 years

- Cattle
- Machinery
- Titled vehicles



Balance Sheets – Assets con't

Long term assets – permanent items with a useful life of >10 years

- Land
- Buildings and improvements



Balance Sheets – Liabilities

Current liabilities – obligations due and payable within the next 12 months

- Operating loans
- Accrued interest
- Loan principal due in 12 months



Balance Sheets – Liabilities con't

Intermediate liabilities –those liabilities due within 1-10 years

Loans of 1-10 years to maturity

- Cattle
- Machinery
- Old loans entering this category (from long term)
- Old operating loans “termed out”



Balance Sheets – Liabilities con't

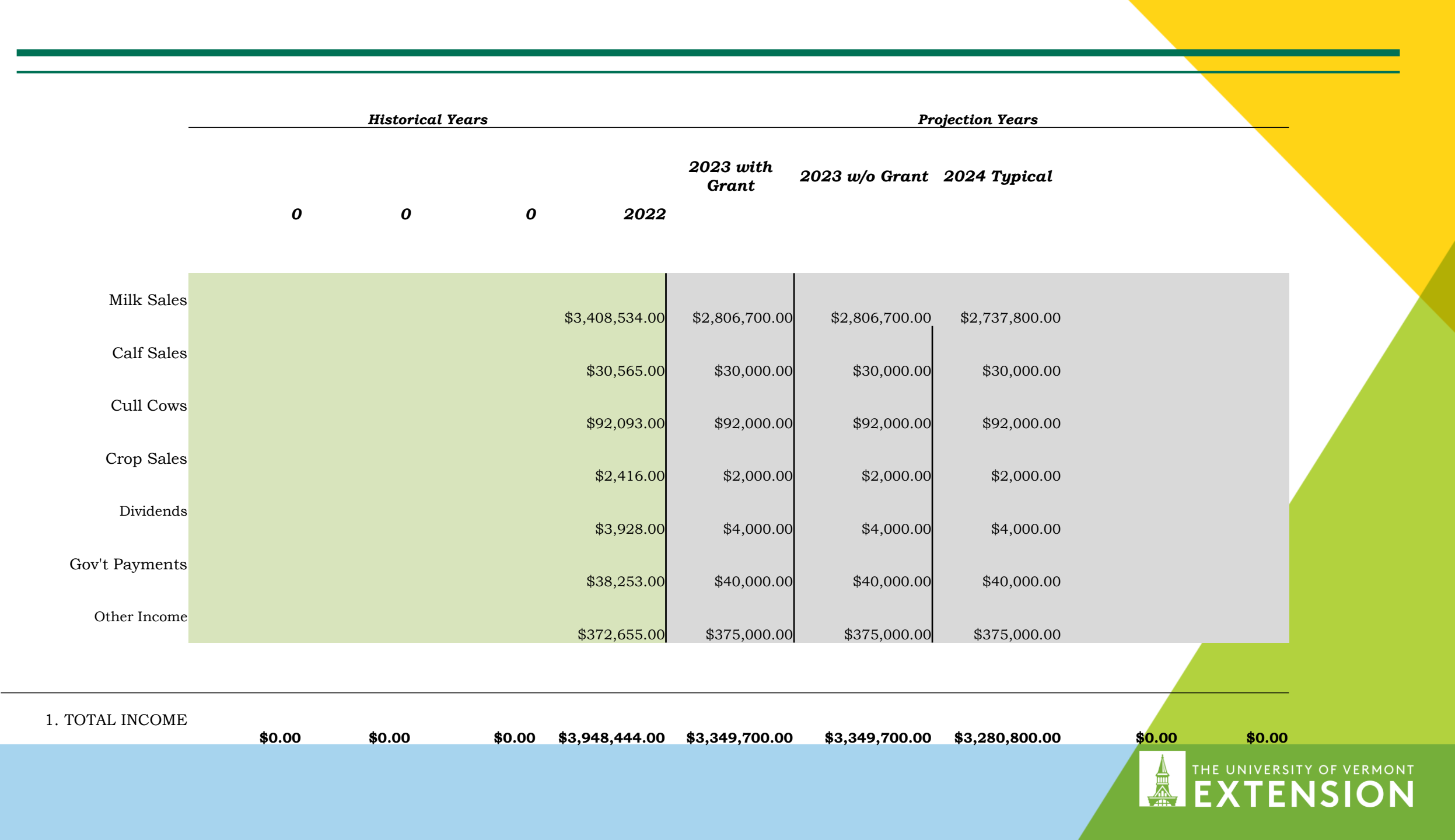
Long term liabilities – that which is owed for >10 years

Farm real estate loans 20-40 years possible



	2022				2023 with Grant	2023 w/o Grant	2024 Typical		
Total Cows (Milking + Dry)				540	540	540	540		
Percent of Cows Milking				85%	85%	85%	85%		
Lbs Shipped / Cow / Day				79.5	78.9	78.9	78.9		
\$/CWT				\$26.03	\$21.59	\$21.59	\$21.06		
Culling Rate				24%	24%	24%	24%		
Cows Milked Per Day	0	0	0	459	459	459	459		
Lbs Shipped / Year				13,094,595	13,000,000	13,000,000	13,000,000		
Lbs Shipped / Day	0	0	0	35,876	35,616	35,616	35,616		
Lbs. Shipped / Cow / Year				24,249	24,074	24,074	24,074		
Number Cows Culled / Year				130.00	130.00	130.00	130.00		
Farm Assets				\$5,424,692.00	\$5,424,692.00	\$5,424,692.00	\$5,424,692.00		
Farm Liabilities				\$1,674,518.00	\$1,531,509.00	\$1,388,509.00	\$1,388,509.00		
Net Worth	\$0.00	\$0.00	\$0.00	\$3,750,174.00	\$3,893,183.00	\$4,036,183.00	\$4,036,183.00	\$0.00	\$0.00
Return on Assets				12.9%	11.3%	11.1%	9.8%		
Return on Equity				16.3%	13.3%	12.3%	11.0%		
Operating Profit Margin				18.6%	15.7%	14.9%	13.2%		
NFIFO	\$0	\$0	\$0	\$637,159	\$543,659	\$519,979	\$470,940	\$0	\$0





	Historical Years				Projection Years				
	0	0	0	2022	2023 with Grant	2023 w/o Grant	2024 Typical		
Milk Sales				\$3,408,534.00	\$2,806,700.00	\$2,806,700.00	\$2,737,800.00		
Calf Sales				\$30,565.00	\$30,000.00	\$30,000.00	\$30,000.00		
Cull Cows				\$92,093.00	\$92,000.00	\$92,000.00	\$92,000.00		
Crop Sales				\$2,416.00	\$2,000.00	\$2,000.00	\$2,000.00		
Dividends				\$3,928.00	\$4,000.00	\$4,000.00	\$4,000.00		
Gov't Payments				\$38,253.00	\$40,000.00	\$40,000.00	\$40,000.00		
Other Income				\$372,655.00	\$375,000.00	\$375,000.00	\$375,000.00		
1. TOTAL INCOME	\$0.00	\$0.00	\$0.00	\$3,948,444.00	\$3,349,700.00	\$3,349,700.00	\$3,280,800.00	\$0.00	\$0.00



	<i>Historical Years</i>			<i>Projection Years</i>		
	0	0	0	2022	2023 with Grant	2023 w/o Grant 2024 Typical
Other Livestock						
Depreciation				\$0.00	\$0.00	\$0.00 \$0
Feed Purchased ALL				\$1,365,404.00	\$950,000.00	\$950,000.00 \$950,000
Custom Hire				\$159,036.00	\$160,000.00	\$160,000.00 \$160,000
Hoof Trimming				\$24,161.00	\$24,200.00	\$24,200.00 \$24,200
Fertilizer and Lime				\$160,934.00	\$100,000.00	\$110,000.00 \$110,000
Gas, Fuel and Oil				\$128,974.00	\$140,000.00	\$140,000.00 \$140,000
Insurance				\$82,425	\$83,000	\$83,000 \$83,000
Interest				\$85,941	\$92,181	\$105,861 \$105,861
Freight, Trucking, Marketing				\$190,446	\$191,000	\$191,000 \$191,000
Land Rent				\$74,094	\$74,000	\$74,000 \$74,000
Livestock Supply				\$118,345	\$119,000	\$119,000 \$119,000
Repairs/Parts				\$140,251	\$145,000	\$145,000 \$145,000
Lease				\$3,660	\$3,660	\$3,660 \$3,660
Utilities				\$72,616	\$73,000	\$73,000 \$73,000
Property Taxes				\$13,187	\$14,000	\$14,000 \$14,000
Vet, Med and Breeding				\$82,639	\$83,000	\$83,000 \$83,000
Hired Labor				\$421,183	\$422,000	\$422,000 \$422,000
Other				\$86,822	\$87,000	\$87,000 \$87,000
Seed & Plants				\$66,367	\$10,000	\$10,000 \$50,000
Bedding				\$34,800	\$35,000	\$35,000 \$35,000
Machinery Lease						
TOTAL EXPENSE	\$0	\$0	\$0	\$3,311,285	\$2,806,041	\$2,829,721 \$2,869,721 \$0 \$0

NET INCOME FROM OPERATIONS

	\$0.00	\$0.00	\$0.00	\$637,159.00	\$543,659.00	\$519,979.00	\$411,079.00	\$0.00	\$0.00
NET INCOME w/o Depreciation	\$0.00	\$0.00	\$0.00	\$637,159.00	\$543,659.00	\$519,979.00	\$411,079.00	\$0.00	\$0.00

	Historical Years			Projection Years					
CASH INFLOWS AND OUTFLOWS	0	0	0	2022	2023 with Grant	2023 w/o Grant	2024 Typical		
Capital Expenses				\$50,000.00	\$352,198.00	\$352,198.00	\$20,000.00		
Grant Funds					\$421,649.00	\$250,000.00	\$0.00		
- Term Debt Principal Repayment				\$143,000.00	\$148,000.00	\$154,136.00	\$154,136.00		
Estimated Depreciation				\$240,000.00	\$240,000.00	\$240,000.00	\$240,000.00		
- Owner Draws				\$25,000.00	\$25,000.00	\$25,000.00	\$25,000.00		
= Net Cash Position	\$0	\$0	\$0	\$179,159	\$200,110	-\$1,355	-\$28,057	\$0	\$0