

Dairy Gauge



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Dairy Gauge is a financial benchmarking program that can be utilized by dairy producers. Producers can submit their farm information into the program, to evaluate the financial health and efficiency of their business. The producer will not only get the financial benchmarks this spreadsheet creates, but they will get to see how their farm compares to the averages of their peers in the Dairy Gauge Program. This is a confidential program; NO individual farm information will be released.

Information needed in order to fill out the worksheets

- Annual Income and Expense – Prefer Profit & Loss Statement (Income Statement) over Schedule F tax document. The Schedule F tax document is useful for this information, however the categories are limited.
- Annual Milk Marketing Summary
- End of Year or most Current Balance sheet
- Average number of lactating and dry cows

To complete this program, fill in the blue and purple cells on the three orange tabs (located at the bottom of the Excel worksheet labeled: Income and Expense, Forage Cost Survey and Balance Sheets). Once finished, the program will create the Dairy Benchmarks Report and Scorecard. You can print the output or just view (located on the scorecard tab). Once the information is gathered, the analysis takes about 2 hours.

If you would like more information about the Dairy Gauge Benchmarking Program, please contact David Bilderback, University of Tennessee Extension, at db@utk.edu or Dr. Charles Martinez, University of Tennessee Extension, at cmart113@utk.edu.

Note Regarding Security Settings: The decision-aid file contains macros (examples: buttons for printing and moving from the intro page to the calculator) which are required for the calculator to function properly. Security settings for Microsoft Office or Excel may give you warnings when you open the file regarding the safety of enabling the macros. This will especially be true if your security settings are set to high or very high. The macros in the file must be enabled for the calculator to function properly.



Programs in agriculture and natural resources, 4-H youth development, family and consumer sciences, and resource development.
University of Tennessee Institute of Agriculture, U.S. Department of Agriculture and county governments cooperating.
UT Extension provides equal opportunities in programs and employment.

Production Year	2020	Number of Cows	Average Pounds		
	Annual Pounds Sold				
Milk Production	1	1.00	1.00		
Income	Total	Per Cow	Per Cwt.		
Calves & Heifers	1.00	1.00	100.00		
Crops	1.00	1.00	100.00		
Cull Income	1.00	1.00	100.00		
Dividends	1.00	1.00	100.00		
Government Payments	1.00	1.00	100.00		
Milk	1.00	1.00	100.00		
Other Income	1.00	1.00	100.00		
Gross Farm Income	7.00	7.00	700.00		
Variable Expense	Total	Per Cow	Per Cwt.	Percent Per CWT Milk	Percent Per CWT Gross
Animal Health	0.00				
Bedding	0.00				
Breeding	0.00				
Chemicals	0.00				
Crop Insurance	0.00				
Custom Hired	0.00				
Feed	0.00				
Fertilizer	0.00				
Fuel & Oil	0.00				
Insurance	0.00				
Interest	0.00				
Labor	0.00				
Machinery Lease	0.00				
Milk Hauling	0.00				
Milk Marketing	0.00				
Milk Testing	0.00				
Other Expenses	0.00				
Professional Fees	0.00				
Rent	0.00				
Repairs	0.00				
Seed	0.00				
Supplies	0.00				
Taxes (Property, Auto)	0.00				
Utilities	0.00				
Total Cash Farm Expense	0.00	0.00	0.00		0.0%
Net Farm Income From Operations	7.00	7.00	700.00		100%
Fixed Cost					
Principle Payments	0.00				
Depreciation	0.00				
Livestock purchased (Cash Exp.)	0.00				
Equipment purchased (Cash Exp.)	0.00				
Other Assets purchased (Cash Exp.)	0.00				
Family Living	0.00				
Total Fixed Cost	0.00	0.00	0.00		
Total Cost	0.00	0.00	0.00		
Net Farm Cash Flow	7.00	7.00	700.00		

Forage Cost Survey

Variable Expense	Percent Used for Forage	Total	Per Cow	Per Cwt.
Chemicals	100%	\$ -	\$ -	\$ -
Crop Insurance	100%	\$ -	\$ -	\$ -
Custom Hired	75%	\$ -	\$ -	\$ -
Fertilizer	100%	\$ -	\$ -	\$ -
Fuel & Oil	25%	\$ -	\$ -	\$ -
Labor	10%	\$ -	\$ -	\$ -
Machinery Lease	50%	\$ -	\$ -	\$ -
Rent	50%	\$ -	\$ -	\$ -
Repairs	10%	\$ -	\$ -	\$ -
Seed	80%	\$ -	\$ -	\$ -
Supplies		\$ -	\$ -	\$ -
Total		\$ -	\$ -	\$ -

Note: Ask the producer, what is the percent of each category that is associated with the production and storage of the feed.

Balance Sheet					
Current Assets	\$	-	Current Liabilities	\$	-
Intermediate Assets	\$	-	Intermediate Liabilities	\$	-
Long-Term Assets	\$	-	Long-Term Liabilities	\$	-
Total Assets	\$	-	Total Liabilities	\$	-
			Net Worth	\$	-

Total Operator Management Fee

Total Owner Operator Management Fee applies if the owner(s) are not paid a wage. This number is used to calculate Rate of Return on Farm Assets (ROA) and Operating Profit Margin. If the owner(s) are paid a

Note: Use the most current balance sheet. If the balance sheet does not breakout intermediate and long-term that is fine. The information can be put in either intermediate or long-term. Current assets and liabilities will need to be listed. **Farm only.** Do not include personal Information.

Dairy Gauge

Production Year: 2020

Balance Sheet						
Current Assets	\$	-	Current Liabilities	\$	-	
Intermediate Assets	\$	-	Intermediate Liabilities	\$	-	
Long-Term Assets	\$	-	Long-Term Liabilities	\$	-	
Total Assets	\$	-	Total Liabilities	\$	-	
				Net Worth	\$	-

Balance Sheet & Profitability Benchmarks

Debt Per Cow			
Goal: Less than \$5,000 Per Cow	\$	-	Great! The business is utilizing debt efficiently.
Total Investment Per Cow			
Goal: 7,500 to 15,000	\$	-	Great! The dairy is operating financially efficient
Asset Turnover Ratio			
Goal: 35%	#DIV/0!		#DIV/0!
Current Ratio			
Goal: 1.5	#DIV/0!		#DIV/0!
Working Capital	\$	-	
Debt to Asset Ratio			
Goal: Less than 40%	#DIV/0!		#DIV/0!
Debt to Equity Ratio			
Goal: Less than 50%	#DIV/0!		#DIV/0!
Rate of Return on Farm Assets (ROA)			
Goal: 5%	#DIV/0!		#DIV/0!
Operating Profit Margin			
Goal: 25%	100.0%		Great! The dairy has great profitability.

* All Ratios calculated using latest balance sheet information not yearly averages



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Farm Quick Facts

Total Milk Production		1			
Total Cows		1.00			
Average Pounds		1.00			
Income		Variable Expense			
Gross Farm Income	\$	7.00	Total Cash Expense	\$	-
Income Per Cow	\$	7.00	Cash Expense Per Cow	\$	-
Milk Income Per CWT	\$	100.00	Total Cash Expense Per CWT	\$	-
Total Income Per CWT	\$	700.00			
Net Farm Income			Fixed Cost		
Net Farm Income From Operations	\$	7.00	Total Fixed Cost Paid		0.00
Net Cash Flow	\$	7.00	Fixed Cost Per Cow		0.00
Net Cash Flow Per CWT	\$	700.00	Fixed Cost Per CWT		0.00
Cash Flow			Total Cost		
Net Cash Flow		7.00	Total Cost		0.00
Net Cash Flow Per Cow		7.00	Total Cost Per Cow		0.00
Net Cash Flow Per CWT		700.00	Total Cost Per CWT		0.00

Feed Benchmarks

Feed Cost per CWT			Note: Milk price is a major factor in some of these benchmarks. If milk price is depressed, the benchmarks will also be lower.
Purchased Feed			
Forage cost	\$	-	
Total Feed Cost per CWT	\$	-	
Purchased Feed Costs			Investigate, Feed costs are greatly elevated and the producer should evaluate purchased feed costs and consult with the dairy's nutritionist.
Goal: Less than 45% of Total Income			
Total Feed Cost (as a percent of milk income)			
Goal: Less than 60% of Milk income		0%	Great! The farm's feed costs are under control.
Milk Income Over Feed Cost	\$	100.00	
Milk Income Over Feed Cost %		100%	Great! The Farm's IOFC is strong.
Goal: Greater than 40%			
Milk Returns per \$100 of Purchased Feed		#DIV/0!	
Milk Returns per \$100 of Total Feed		#DIV/0!	

Income & Expense Benchmarks

Income Per Cow			Investigate, Analyze milk volume per cow. Look at milk components, cull income, and other sources of farm income.
Goal: \$5,000 Per Cow	\$	7.00	
Livestock Expenses			
Goal: Breeding and Animal Health Less than 4%			#VALUE!
Gross Farm Income			#VALUE!
Operation Cost (As a Percentage of Gross Income)			
Goal: Total Cash Expense Less than 80% of Gross Farm Income		0%	Great! Operation costs are under control.
Net Farm Income Ratio			
Goal: 20%		100%	Great! The farm's net farm income is exceeding the benchmarks.
Labor Expense			
Goal: Less than 15% Gross Farm income			Investigate, Evaluate the farm's labor force to see if it can be more efficient.
Interest Expense Ratio			
Goal: Less than 5%		0.0%	Great! The ratio indicates that less than 5% of gross farm income is used to pay for borrowed capital.

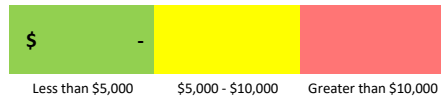
Dairy Gauge



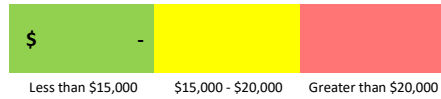
Production Year: 2020

Balance Sheet Benchmarks

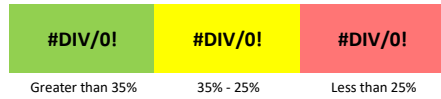
Debt Per Cow: Goal- Less than \$5,000 Per Cow



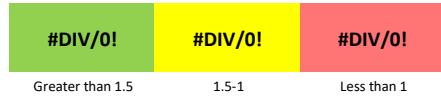
Total Investment Per Cow: Goal - \$7,500 to \$15,000



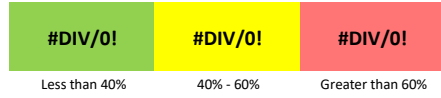
Asset Turnover Ratio: Goal- Greater than 35%



Current Ratio: Goal - Greater than 1.5



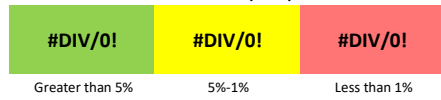
Debt to Asset Ratio: Goal - Less than 40%



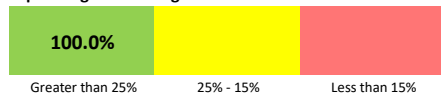
Debt to Equity Ratio: Goal - Less than 50%



Rate of Return on Farm Assets (ROA): Goal - Greater than 5%

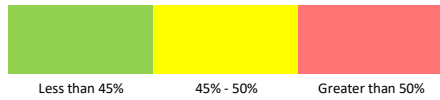


Operating Profit Margin: Goal - Greater than 25%

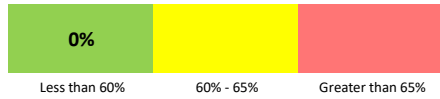


Feed Benchmarks

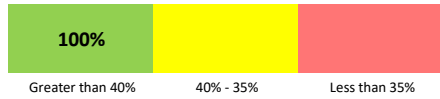
Purchased Feed Cost (Percent of Total Income): Goal - Less than 45%



Total Feed Cost (Percent of Milk Income): Goal - Less than 60%



Milk Income Over Feed Cost %: Goal - Greater than 40%

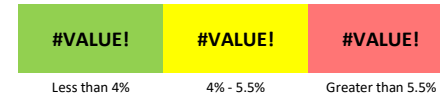


Income & Expense Benchmarks

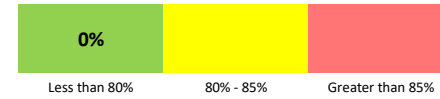
Income Per Cow: Goal - Greater than \$5,000



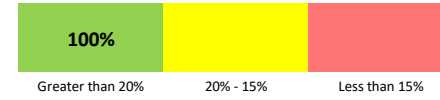
Livestock Expenses: Goal - Less Than 4%



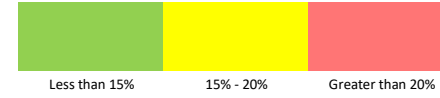
Operation Cost (As a Percentage of Gross Income): Goal - Less than 80%



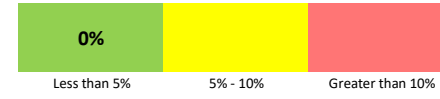
Net Farm Income Ratio: Goal - Greater than 20%



Labor Expense: Goal - Less than 15%



Interest Expense Ratio: Goal - Less than 5%



Dairy Gauge Key

Great:

Watch:

Investigate: