



Wisconsin Dairy Ratio Benchmarking

Victor E. Cabrera & Jenny Vanderlin

NORTH CENTRAL
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Benchmarking

- Monitor relationships of:
 - Income generation
 - Investment control
 - Debt control
 - Operating cost control
- Underlies important financial strengths and weaknesses
- Advisable not to use a single benchmark
- Important comparisons could be done using ROROA, ROROE, ATO, OPM, DuPont Analysis



Financial Indicators

- Sweet-15 financial measures: some people may use more, some people may use less
- Five clusters of financial indicators are always needed
 1. Liquidity
 2. Solvency
 3. Profitability
 4. Repayment Capacity
 5. Financial Efficiency







Wisconsin Dairy Farm Ratio Benchmarking Tool

- Sweet-15 financial analysis measures
- Benchmarking with +500 Wisconsin farms (AgFA)
- Cluster analysis
 - Year
 - Herd size: 50, 100, 150, 300, >300
 - Income/cow: \$4,000, \$4,500, \$5,000, >\$5,500
 - Milk/cow: 16,000, 19,000, 22,000, >25,000
- DuPont analysis
 - $ROROA = ATO * OPM$



Wisconsin Dairy Farm Ratio Benchmarking Tool

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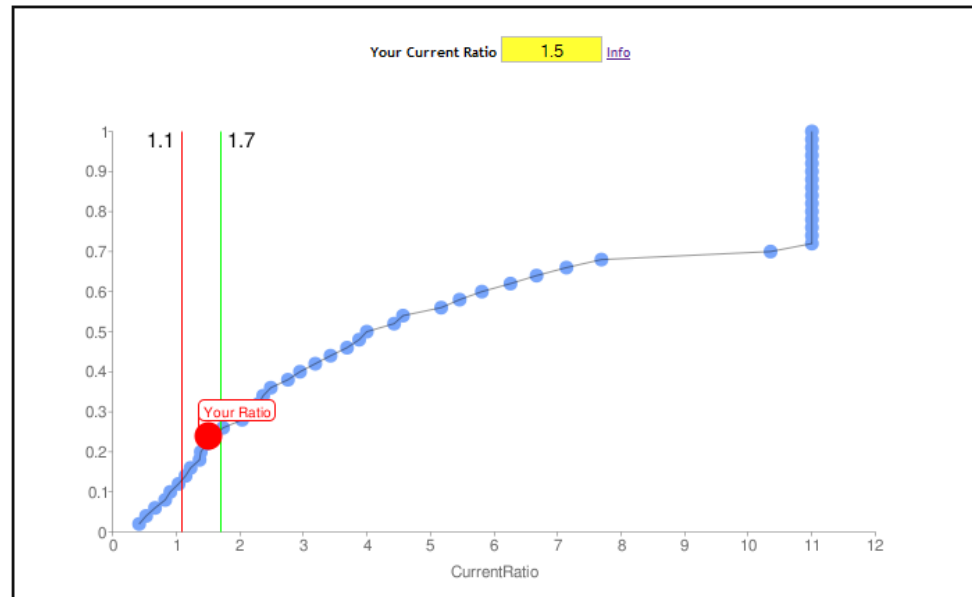
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Year
Herd Size
Inc/Cow
Milk/Cow

- Overview
- Liquidity**
- Solvency
- Profitability
- Repayment
- Efficiency
- Du Pont
- Summary
- Definitions

Liquidity

Current Ratio



Net Working Capital (NWC)



Wisconsin Dairy Farm Ratio Benchmarking Tool

YEAR 2008

HERD SIZE >50<=100

INC/COW >5000<=5500

MILK/COW >25000

YEAR 2008

HERD SIZE >50

INC/COW >50

MILK/COW >25

2000
2001
2002
2003
2004
2005
2006
2007
2008

YEAR 2008

HERD SIZE >50<=100

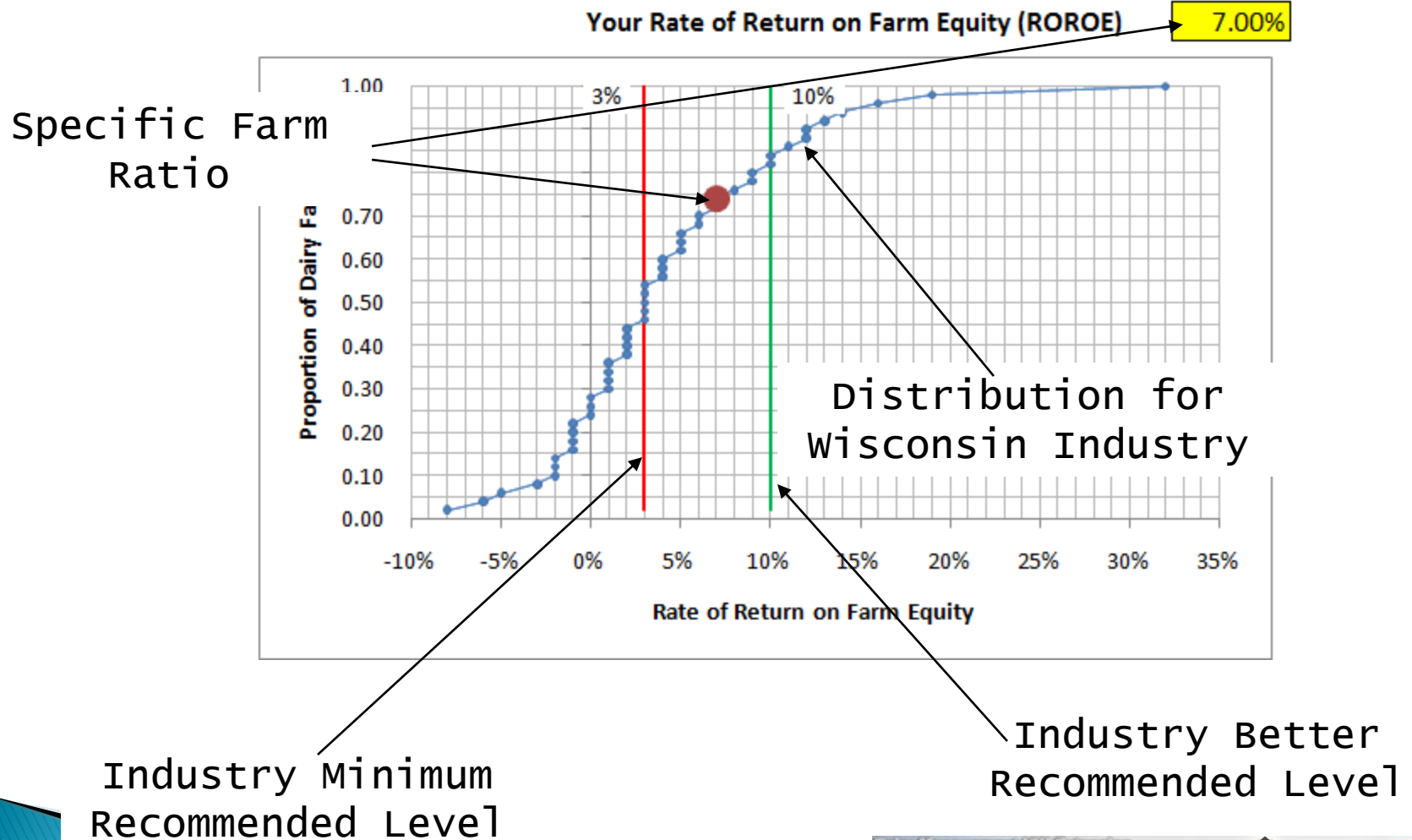
INC/COW

MILK/COW

<=50
>50<=100
>100<=150
>150<=300
>300



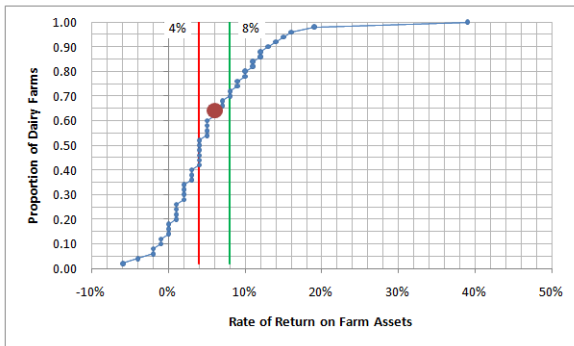
Wisconsin Dairy Farm Ratio Benchmarking Tool



Wisconsin Dairy Farm Ratio Benchmarking Tool

Your Rate of Return on Farm Assets (ROROA)

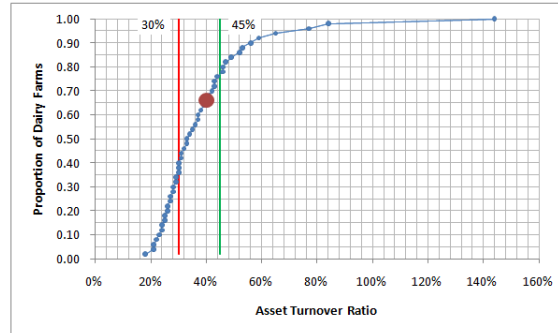
6.00%



=

Your Asset Turnover Ratio (ATO)

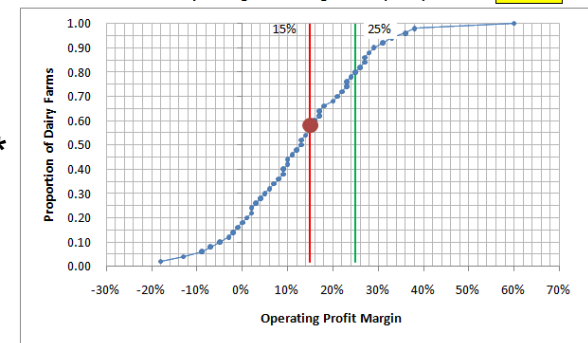
40%



*

Your Operating Profit Margin Ratio (OPM)

15.00%



Du Pont Analysis			
	Rate of Return on Assets (ROROA)%	Asset Turnover Ratio (ATO)	Operating Profit Margin (OPM) %
Wisconsin Farms	2.18	0.369	5.92
Your Farm	6	0.4	15

For every dollar invested in assets you had \$0.06 of profit,
 for every dollar invested in assets you had \$0.4 of revenue and
 for every dollar of total revenue you had \$0.15 of profit.
 Consequently your rate of return of 6% is 0.4 of total revenue times 0.15 of profit.



Wisconsin Dairy Farm Ratio Benchmarking Tool

Overview Liquidity Solvency Profitability Repayment Efficiency Du Pont **Summary** Definitions

Ratio	Wisconsin Ratio	Your Ratio	Percentile
Current Ratio (CR)	5.56	1.5	22
Net Working Capital (NWC)	141797.08	50000	26
Debt/Asset Ratio (D/A)	24.16	35	28
Equity Asset Ratio (E/A)	77.86	65	24
Net Farm Income (NFI)	28614.42	50000	86
Return on Farm Assets (ROROA)	5.14	6	74
Return on Farm Equity (ROROE)	1.6	5	76
Operating Profit Margin (OPM)	5.92	15	70
Term Debt Coverage Ratio (TDCR)	152.34	140	58
Replacement Margin (RM)	18381.32	50000	84
Asset Turnover Ratio (ATO)	36.9	40	80
Operating Expenses Ratio (OER)	67.7	70	38
Depreciation Expenses Ratio (DER)	11.1	10	60
Interest Expense Ratio (IER)	3.48	8	16
Net Farm Income Ratio (NFIR)	18.94	15	36



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Dairy Management

Dairy Management site is designed to support dairy farming decision-making focusing on model-based scientific research. The ultimate goal is to provide user-friendly computerized decision support systems to help dairy farms improve their economic performance. Dr. Victor Cabrera focuses on model-based decision support in dairy cattle and in dairy farm production systems. Dr. Cabrera's primary interest is to improve cost-efficiency and profitability along with environmental stewardship in dairy farms by using simulation techniques, artificial intelligence, and expert systems. Dr. Cabrera's research and Extension programs involve interdisciplinary and participatory approaches towards the creation of user-friendly decision support systems. As an Extension Specialist, Dr. Cabrera works in close relationships with county-based Extension faculty, dairy producers, consultants, and related industry.

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Financial

The Wisconsin Dairy Farm Ratio Benchmarking Tool

The Wisconsin Dairy Farm Ratio Benchmarking is a spreadsheet based tool especially created for this project. It compares dairy farm's financial status with +500 dairy farms in the State of Wisconsin.

Excel Spreadsheet ([Download](#))
 Web Based ([Online](#))

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