

SOURCES OF DATA

The 53 producers who provided data for this report have all earned a Minnesota Water Quality Certification from the MN Department of Agriculture. Those producers are located in the 29 of Minnesota's 87 counties. Those counties are highlighted on the map.

MINNESOTA FARM BUSINESS MANAGEMENT EDUCATION PROGRAMS

Vision: To provide educational opportunities for students to be successful in a competitive agricultural environment.

Mission: To deliver management education for decision-making that achieves an individual's business goals.

Guiding Principles:

- 1. Improved Quality of Life in Rural Communities
- 2. Achievement of Student Goals
- 3. Awareness of the Global Importance of Agriculture
- 4. Integrity in Student Interaction
- 5. Timely and Student-Focused Programming

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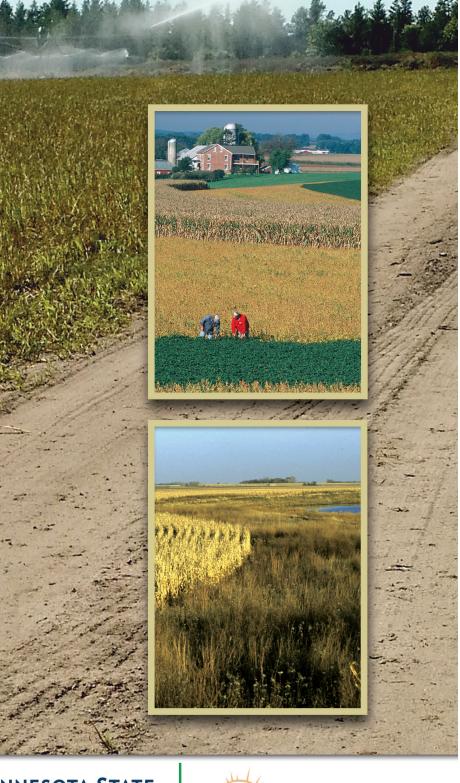
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MINNESOTA STATE Southern Agricultural Center of Excellence

INFLUENCE OF INTENSIFIED ENVIRONMENTAL PRACTICES ON FARM PROFITABILITY



MINNESOTA STATE Agriculture Centers of Excellence

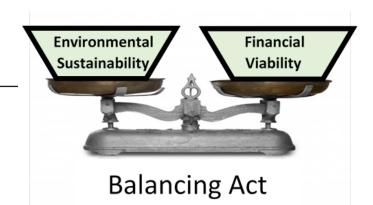
- 2020

AgCentric



EXPLORING THE IMPACT OF SELECTED PRACTICES ON FARM ECONOMICS

There are costs and benefits from implementing farm practices that exceed normal practices in supporting environmental sustainability. Decisions to implement new practices are impacted by the balancing act of Environmental Sustainability and Financial Viability, as shown to the right.





The Environmental Cohort farms were larger in asset value and earned a larger new worth. The owned portion and the lender supported portion of total assets is shown below.

| | Environmental | Benchmark | Total Farm Assets | | |
|-------------------------------|---------------|--------------------|---|--|--|
| Balance Sheet (Market) | Cohort (EC) | Average | | | |
| | All Farms | All Farms | \$2,000,067 \$1,233,241 | | |
| Total Farm Assets | \$3,293,907 | \$2,232,039 | \$1,293,840 \$998,798 | | |
| Total Farm Liabilities | \$1,293,840 | \$998 <i>,</i> 798 | | | |
| Net Worth | \$2,000,067 | \$1,233,241 | EC Ave Total Farm Liabilities Net Worth | | |

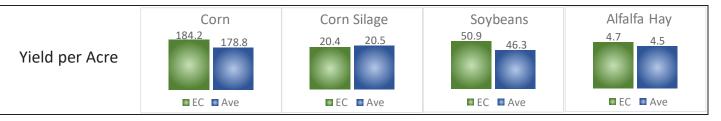
Farms in the Environmental Cohort had a stronger Term Debt Coverage Ratio, 1.61, compared to the overall database, at 1.37. Operating Expense Ratio for the Environmental Cohort was 75.3%, compared to 79.3% for the overall average.

| Selected Measures | Environmental Cohort (EC) | Benchma Averag | |
|-----------------------------|------------------------------|-------------------|--|
| | All Farms | All F | |
| Working Capital as % of GFI | 25.1% | 2 | |
| Debt to Asset Ratio | 47.0% | 4 | |
| Term Debt Coverage Ratio | 1.61 | | |
| Operating Expense Ratio | 75.3% | 7 | |

Crop Enterprises At-A-Glance

Traditional crop enterprises were selected from the primary crops raised by producers in this sort. The enterprises selected include: Corn, Soybeans, Corn Silage, and Alfalfa. Income, expense, and management data has been reduced to the factors listed below for each crop.

| Crop Enterprises | Corn | | Corn Silage | | Soybeans | | Alfalfa Hay | |
|-------------------------|----------|----------|-------------|----------|----------|----------|-------------|----------|
| Combined | EC | Ave | EC | Ave | EC | Ave | EC | FBM |
| Number of Farms | 37 | 1,394 | 16 | 354 | 31 | 1,286 | 16 | 294 |
| Yield per Acre | 184.2 | 178.8 | 20.4 | 20.5 | 50.9 | 46.3 | 4.7 | 4.5 |
| Gross Return/Acre | \$796.22 | \$753.47 | \$692.54 | \$748.63 | \$532.36 | \$477.55 | \$664.27 | \$679.07 |
| Fertilizer Expense/Acre | \$118.70 | \$128.31 | \$76.66 | \$96.76 | \$25.12 | \$22.19 | \$42.44 | \$51.22 |
| Total Direct Exp/Acre | \$570.67 | \$573.75 | \$531.56 | \$516.37 | \$379.29 | \$341.59 | \$284.11 | \$297.55 |
| Net Return/Acre | \$60.22 | \$51.04 | \$40.57 | \$96.29 | \$43.30 | \$51.27 | \$273.26 | \$259.23 |
| Cost of Prod w Lbr/unit | \$3.59 | \$3.61 | \$31.04 | \$29.91 | \$8.49 | \$8.09 | \$79.24 | \$93.19 |



First Look

Identifying a cohort to compare to the benchmarks of current practice can be the most difficult part of providing comparison data. For this sort, the cohort has been defined as: Minnesota Water Quality Certified farms that are a part of the MN FBM state database. This first year document is designed to provide a broad overview of selected financial and production factors that provide a "window" into longer term comparisons. It is a "First Look" and not intended to suggest that a long term trend is represented in this report.

Demographics

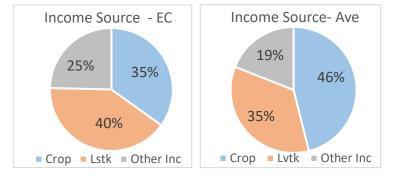
The MN FBM state database included complete financial data from 2167 producers who participate in the Minnesota State Farm Business Management Education (FBM) program. The "Environmental Cohort" consists of 53 of those producers. Below is a comparison of the two groups:

| Demographics | Environmental Cohort (EC) | Benchmark Average | Type of Farm - EC | Type of Fai |
|---------------------------|------------------------------|----------------------|----------------------|-------------|
| | All Farms | All Farms | 28% | 34% |
| Number of Farms | 53 | 2,167 | 47% | |
| Total Crop Acres per farm | 666 | 775 | | |
| Total Crop Acres/Cohort | 35,298 | 1,679,425 | 25% | 14% |
| Age of Operator | 49.0 | 47.1 | | |
| Years Farming | 24.8 | 23.0 | Crop Dairy All Other | Crop Dairy |

Financials At-A-Glance

To provide a brief financial overview for this report, a limited number of financial factors have been selected. Those factors are taken from the Income Statement, the Market Balance Sheet, and from the approved Farm Financial Standards Measures. That data is shown below:

| Income Statement | Environmental Cohort (EC) | Benchmark Average | |
|----------------------------|------------------------------|----------------------|--|
| | All Farms | All Farms | |
| Gross Cash Farm Income | \$802,995 | \$744,078 | |
| Total Cash Farm Expense | \$658,545 | \$645,752 | |
| Net Cash Income | \$144,450 | \$98,326 | |
| Inventory Chg/Depreciation | -\$51,629 | -\$24,683 | |
| Average Net Farm Income | \$92,821 | \$73,643 | |
| Median Net Farm Income | \$40,008 | \$33,377 | |





The environmental cohort has a slightly large average farm size, \$802,995 in Gross Farm Income, compared to \$744,078 for the average farm in the state FBM database. The Net Farm Income comparison is shown on the left.

