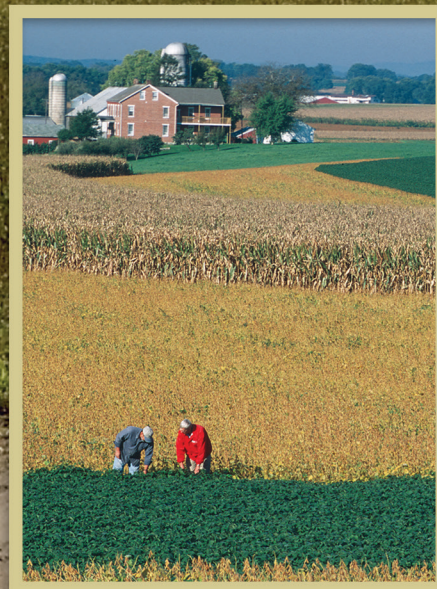


# INFLUENCE OF INTENSIFIED ENVIRONMENTAL PRACTICES ON FARM PROFITABILITY



APRIL | 2020



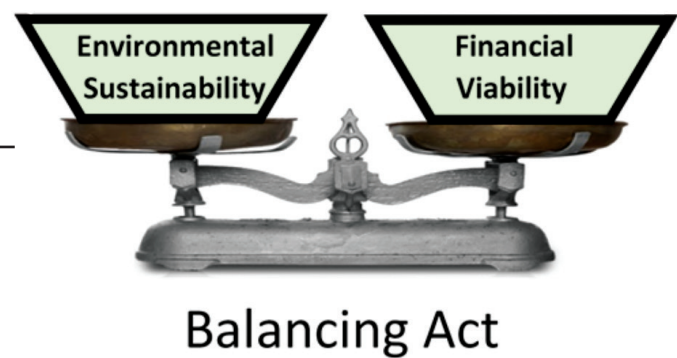
**MINNESOTA STATE**  
Agriculture Centers of Excellence





# 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.



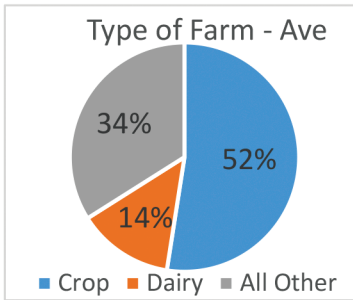
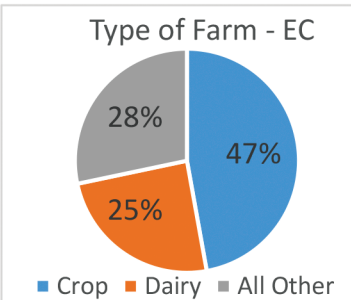
## First Look

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:

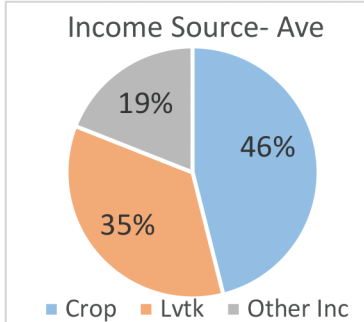
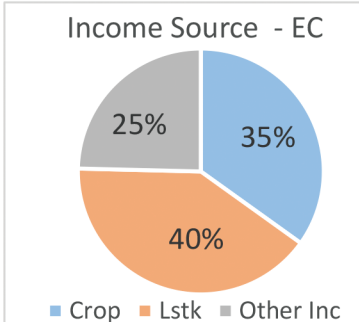
<u>Demographics</u>	<b>Environmental Cohort (EC)</b>	<b>Benchmark Average</b>
	All Farms	All Farms
Number of Farms	53	2,167
Total Crop Acres per farm	666	775
Total Crop Acres/Cohort	35,298	1,679,425
Age of Operator	49.0	47.1
Years Farming	24.8	23.0

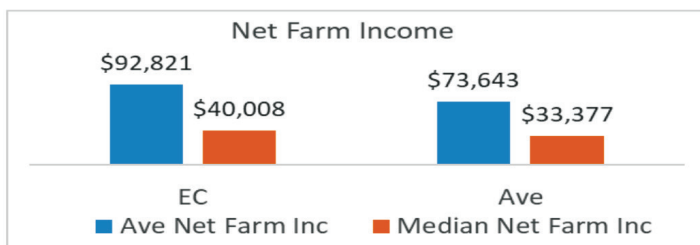


## Financials At-A-Glance

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:

<u>Income Statement</u>	<b>Environmental Cohort (EC)</b>	<b>Benchmark Average</b>
	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

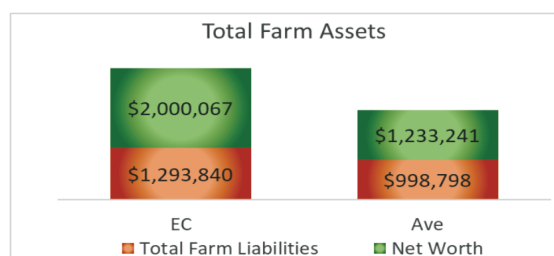




The environmental cohort has a slightly larger average farm size, \$802,995 in Gross Farm Income, compared to \$744,078 for the average farm in the state FBM database. The Net Farm Income comparison is shown on the left.

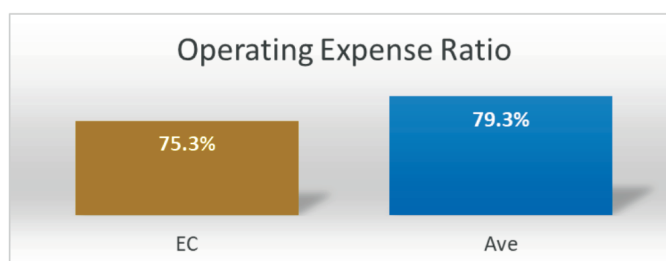
The Environmental Cohort farms were larger in asset value and earned a larger net worth. The owned portion and the lender supported portion of total assets is shown below.

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



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.

<b>Selected Measures</b>	<b>Environmental Cohort (EC)</b>	<b>Benchmark Average</b>
	All Farms	All Farms
Working Capital as % of GFI	25.1%	23.3%
Debt to Asset Ratio	47.0%	46.0%
Term Debt Coverage Ratio	1.61	1.37
Operating Expense Ratio	75.3%	79.3%



## 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.

<b>Crop Enterprises</b>	<b>Corn</b>		<b>Corn Silage</b>		<b>Soybeans</b>		<b>Alfalfa Hay</b>	
<b>Owned &amp; Rented Acres Combined</b>	<b>EC</b>	<b>Ave</b>	<b>EC</b>	<b>Ave</b>	<b>EC</b>	<b>Ave</b>	<b>EC</b>	<b>FBM</b>
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

