



January 18, 2023

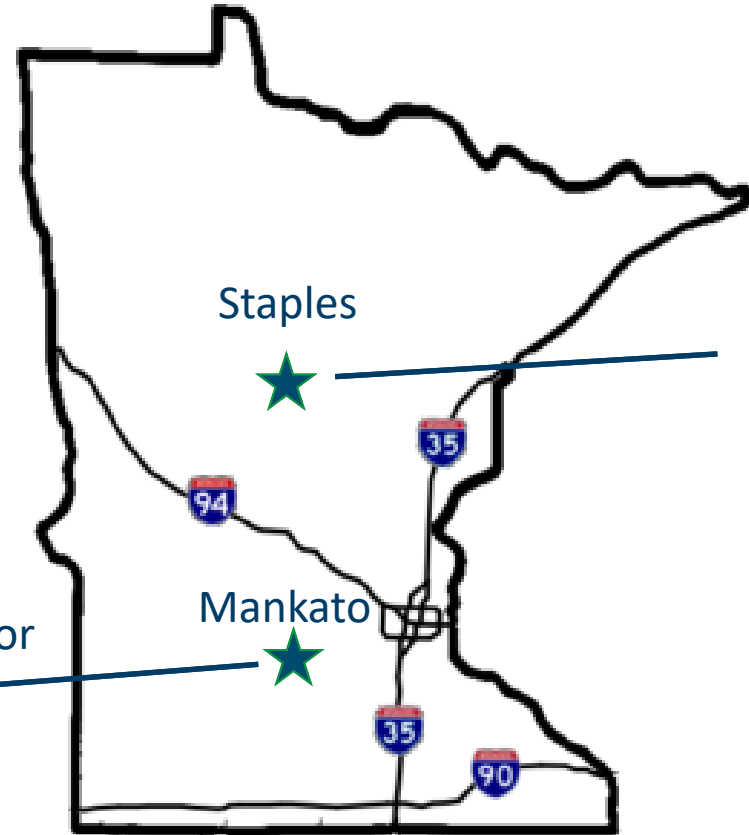
Minnesota State

Post Secondary Agriculture, Food, and Natural Resources Education
Farm Business Management Education

Keith Olander, Executive Director, MN State Northern Agricultural Center of Excellence : AgCentric

Minnesota State Agricultural Centers of Excellence

Program Facilitator, Industry Connector, Student Success

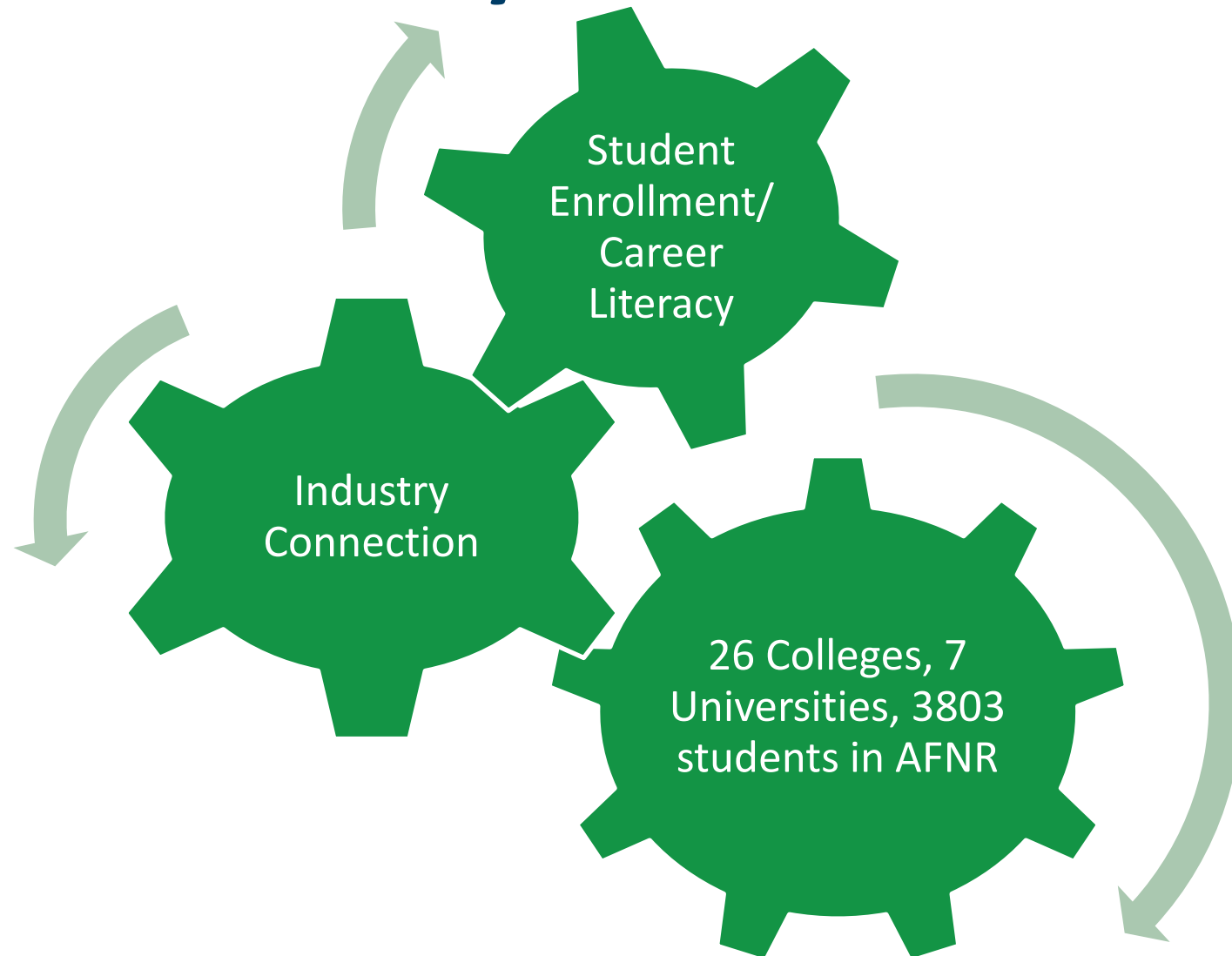


Keith Olander
Northern Center Exec Director
1830 Airport Rd
Staples, MN
218-894-5163
Keith.olander@clcmn.edu

Megan Roberts
Southern Center Exec Director
1920 Lee Boulevard
North Mankato, MN
507-389-7290

Megan.Roberts@southcentral.edu

What do the Centers do for Post-Secondary AFNR?



Specific Impacts for Post Secondary

Garnered \$700,000 in federal funds (NSF) to train secondary teachers and develop a career pathway as precision agriculture technicians in alignment with current college curriculum

Received \$2.0 million in federal Community Program funds to support new meat cutting & butchery programs

Supported the launch of Minnesota Chapter of Farmer Veteran Coalition, supporting veterans returning to find careers

Specific Needs for Post Secondary

We are being severely “out-invested” by our neighbors to the west in teaching technology and lab facilities – drawing many youth out of state for education – we need to determine ways to compete.

- Training equipment that mirrors on-farm and industry relevant.

- Labs that are able to house and support food production equipment for training purposes.

Both of these items are in the Minnesota State Workforce Development request for funding

Continue support of workforce development scholarships.

For reference on neighboring states’ investments:

<https://www.sdstate.edu/news/2021/11/raven-precision-agriculture-center-serves-innovation-ecosystem>

<https://www.lrsc.edu/foundation/campaigns/precision-ag-center>

www.youtube.com/watch?v=FQdVhKNthcY

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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Northern Agricultural Center of Excellence

Keith Olander

Executive Director of AgCentric,
Northern Agricultural
Center of Excellence

Keith.Olander@clcmn.edu
(218) 894-5163

agcentric.org



Megan Roberts

Executive Director of the
Southern Agricultural
Center of Excellence

megan.roberts@southcentral.edu
(507) 389-7290

www.centerofagriculture.org



MINNESOTA STATE
Southern Agricultural Center of Excellence

Seven Colleges host Minnesota Farm Business Management Programs



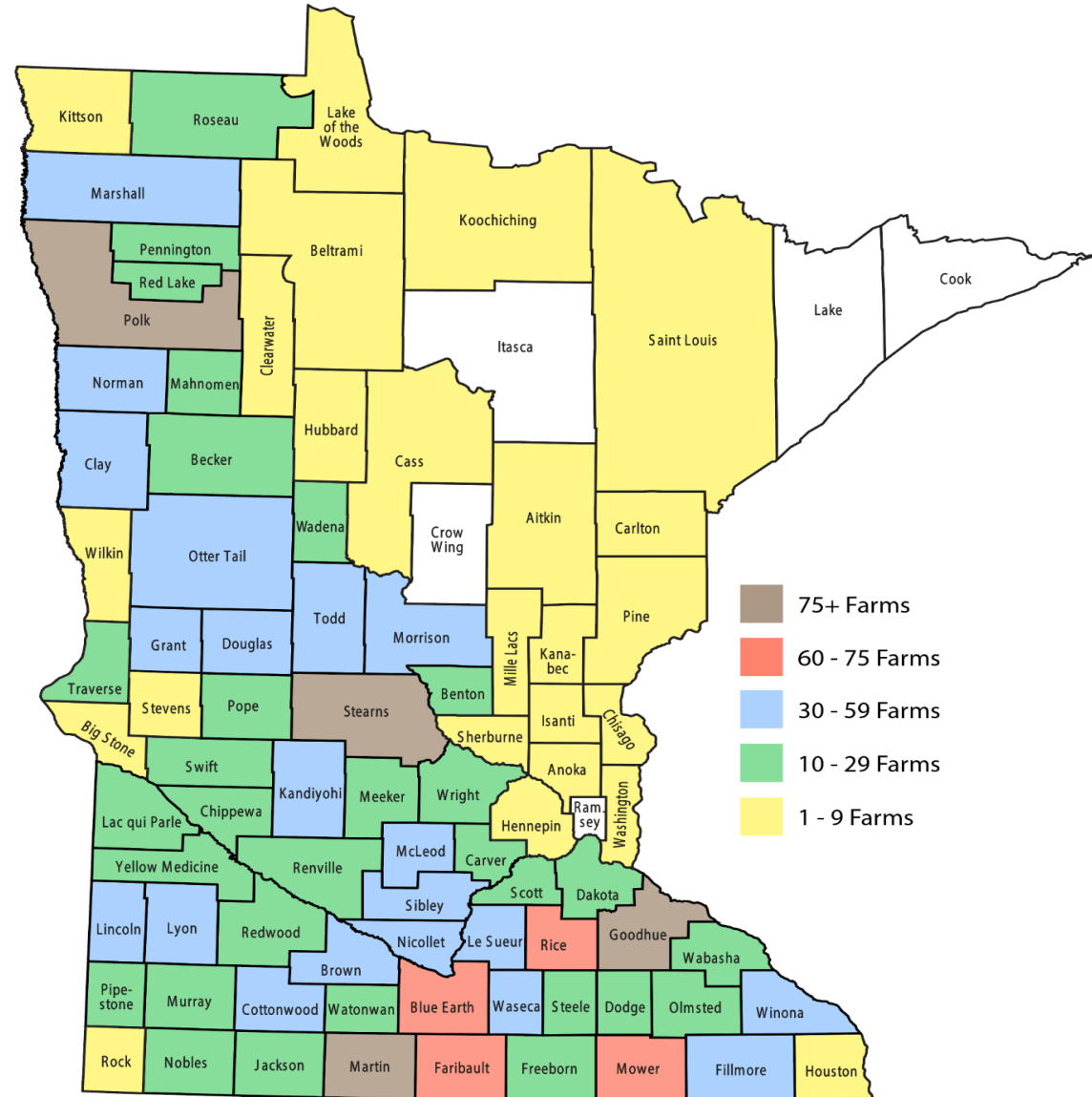
Program Uniqueness

Farm Business Management

- One-on-one, student-led program, designed to help the farmer-student in financial and business management.
- Classes take place at the farmer-student's site of business, individualized to student goals and timeframe.
- A FINPACK business analysis becomes their textbook and decision-making tool

2021 Farm Business Management Financial Analysis by County

- The 2,293 producers who provided data for three MN regional reports are located in 82 of Minnesota's 87 counties.



FBM Teaching Tool

	My Farm	Group Median	Count	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Yield per acre (bu.)	62.00	56.47	3344	32.49	41.57	47.43	51.56	54.99	57.70	60.27	63.31	66.45	71.54
Value per unit	11.75	10.00	3344	8.89	9.16	9.47	9.63	9.89	10.06	10.50	11.00	11.55	12.50
Total product value	728.50	562.61	3344	301.22	395.92	462.18	507.44	545.23	581.30	614.75	657.16	709.21	787.23
Hedging gains/losses	0.00	-13.35	215	-137.61	-137.61	-118.83	-49.25	-19.31	-9.19	-3.33	8.85	14.04	47.90
Crop insurance	0.00	28.41	502	3.45	8.33	12.00	18.73	25.63	31.60	45.06	62.71	115.99	170.68
Other crop income	29.05	32.07	3245	15.00	16.02	19.07	24.83	29.65	34.55	40.09	50.08	65.55	86.40
Gross return	757.55	604.16	3344	334.94	438.24	499.69	547.36	588.11	625.12	654.65	698.40	754.63	841.16
Seed	52.93	52.45	3344	71.13	64.63	60.00	56.53	53.85	51.37	48.98	45.76	41.22	34.61
Fertilizer	42.64	30.15	2151	62.35	49.80	41.74	37.83	33.11	27.76	23.57	19.80	15.00	8.20
Crop chemicals	35.00	43.73	3342	80.56	64.02	55.99	50.30	45.66	40.91	36.46	30.96	25.13	17.14
Crop insurance	7.50	16.54	3281	37.57	29.07	24.59	21.27	18.12	15.13	12.34	10.22	8.24	5.23
Fuel & oil	19.43	12.64	3270	25.08	19.19	16.47	15.10	13.51	12.10	10.69	9.63	7.85	4.08
Repairs	23.78	30.22	3287	64.90	48.16	41.07	36.19	31.97	27.92	23.40	18.93	15.21	6.98
Custom hire	12.13	14.25	1576	86.56	54.02	31.22	21.98	16.12	12.20	8.30	5.91	3.49	1.38
Land rent	165.00	193.11	2217	264.67	241.46	225.00	212.00	200.00	185.34	169.63	145.45	106.53	60.47
Marketing	0.00	2.56	1279	12.62	6.03	4.46	3.48	2.88	2.34	2.00	1.61	1.25	0.56
Operating interest	0.00	6.95	2772	26.81	16.32	12.23	9.67	7.82	5.88	4.63	3.33	1.67	0.28
Total direct expenses	368.91	340.31	3344	512.10	455.44	424.40	396.00	361.40	317.10	271.35	230.78	196.98	154.42
Return over direct expenses	388.64	249.90	3344	42.59	110.01	159.10	195.03	233.08	269.70	308.28	361.87	432.18	556.71
Hired labor	14.48	6.47	2091	37.39	23.68	17.25	10.79	7.73	4.84	2.92	1.55	0.48	0.00
Farm insurance	1.83	6.55	3131	18.69	12.41	10.17	8.55	7.19	6.08	5.28	4.06	2.89	1.27
Utilities	3.58	4.03	2878	11.81	8.31	6.55	5.53	4.50	3.72	2.82	2.20	1.37	0.00
Dues & professional fees	1.11	2.86	2710	12.49	6.98	5.41	4.16	3.20	2.46	2.03	1.59	1.11	0.33
Interest on interm. debt	0.00	2.97	2544	12.91	8.67	6.14	4.74	3.44	2.73	1.97	1.39	0.81	0.19
Machinery depreciation	47.33	26.44	3212	66.90	48.08	38.73	32.72	28.23	24.28	19.95	15.28	10.01	3.31
Building depreciation	6.93	5.50	2181	20.92	14.08	10.08	8.09	6.18	4.72	3.32	2.26	1.47	0.66
Miscellaneous	3.76	3.15	3031	20.82	11.01	7.49	5.37	3.78	2.79	2.06	1.45	0.78	0.23
Total overhead expenses	79.03	76.87	3344	259.61	163.70	125.02	101.35	82.94	73.25	61.45	49.31	35.68	17.91
Total dir & ovhd expenses	447.94	438.11	3344	610.93	543.17	508.98	477.35	450.46	423.01	391.36	350.00	308.87	245.27
Net return	309.60	159.89	3344	-48.68	28.71	72.69	108.61	145.15	178.41	212.74	254.48	309.34	417.16
Government payments	41.34	29.46	3344	0.00	11.58	16.92	21.48	26.95	31.35	38.09	42.50	50.38	65.31
Net return with govt pymts	350.94	191.55	3344	-18.56	56.89	101.55	139.03	172.24	210.21	245.23	287.05	342.40	449.66
Labor & management charge	17.37	33.84	3344	73.79	54.88	45.78	40.39	36.74	31.96	28.49	24.04	18.19	10.44
Net return over lbr & mgt	333.57	154.15	3344	-58.37	20.36	64.43	105.67	138.57	172.34	207.31	250.42	303.51	408.96
Direct cost of prod per unit	5.95	6.35	3344	10.05	8.40	7.67	7.14	6.64	6.09	5.47	4.61	3.77	2.98
Dir & ovhd cost of prod/unit	7.22	7.95	3344	12.30	10.17	9.34	8.74	8.18	7.71	7.21	6.73	6.10	5.08
COP less govt & other income	6.09	6.51	3344	10.31	8.65	7.86	7.28	6.77	6.32	5.83	5.35	4.74	3.55
Cost of prod with lbr & mgt	6.37	7.23	3344	11.28	9.40	8.61	7.98	7.48	6.98	6.51	6.02	5.40	4.23
Machinery cost per acre	102.68	88.97	3344	167.21	129.97	113.39	100.14	92.89	86.08	77.79	69.40	57.40	42.60
Est. labor hours per acre	2.04	1.58	3344	3.42	2.58	2.16	1.89	1.68	1.51	1.38	1.22	1.03	0.76

FBM Teaching Tool - Benchmarking

Fertilizer	42.04	50.13	2131	02.33	49.00	41.74	37.03	33.11	27.70	23.37	19.00	13.00	0.20
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What is new in FBM?

2 Centers of Excellence

7 Colleges/62 faculty

Minnesota FBM Partner Programs

11 programs, \$2.5 million per year for FBM program maintenance and growth

Minnesota FBM Partner Programs

Beginning Farmer Program – Minnesota Department of Agriculture \$450,000

MAELC Challenge Grants - \$1.6 million annually – covers about 23% of direct costs – goes to colleges directly

Adding Urban FBM and Specialty Crop FBM positions - \$250,000 – MAELC one time

Professional Excellence Program Minnesota Agricultural Education Leadership Council (MAELC) - \$50,000 annually – early career training and mentoring

Organic Farms (U of M, WI, ND) 93 Farms - \$70K per year * 4 = \$300,000

New Programs & Opportunities

Minnesota FBM Partner Programs

Precision Irrigation Grant
\$57,750
over 5 years
– 20 producers doing comparative economics of irrigation systems, MDA, NRCS, SWCDs

Cover Crop Project
Environmental Defense Fund - \$75,000
Morgan Family Foundation – <\$100,000
Extension Risk Management Education - <\$100,000
Funding over 3 years

Water Quality Certification – Minnesota Department of Agriculture
94 farms
\$94,000 per year

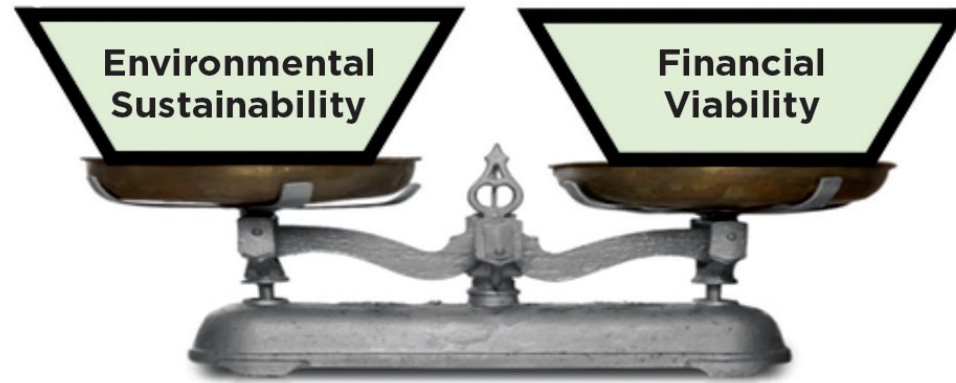
Intertribal Agriculture Council – developing special sort for Native American Economics full tuition for up to 10 students (\$6,000 currently)

Headwater Ag Sustainability Partnership
– 10 farms environmental practices vs. economics - \$10,000 annually, MN Milk, Houston Engineer

Edge Dairy Initiative (Commodity Smart Funds)
- \$250,000 over 5 years – 10 dairy farms on environmental economics

Environmental Metrics and Beyond

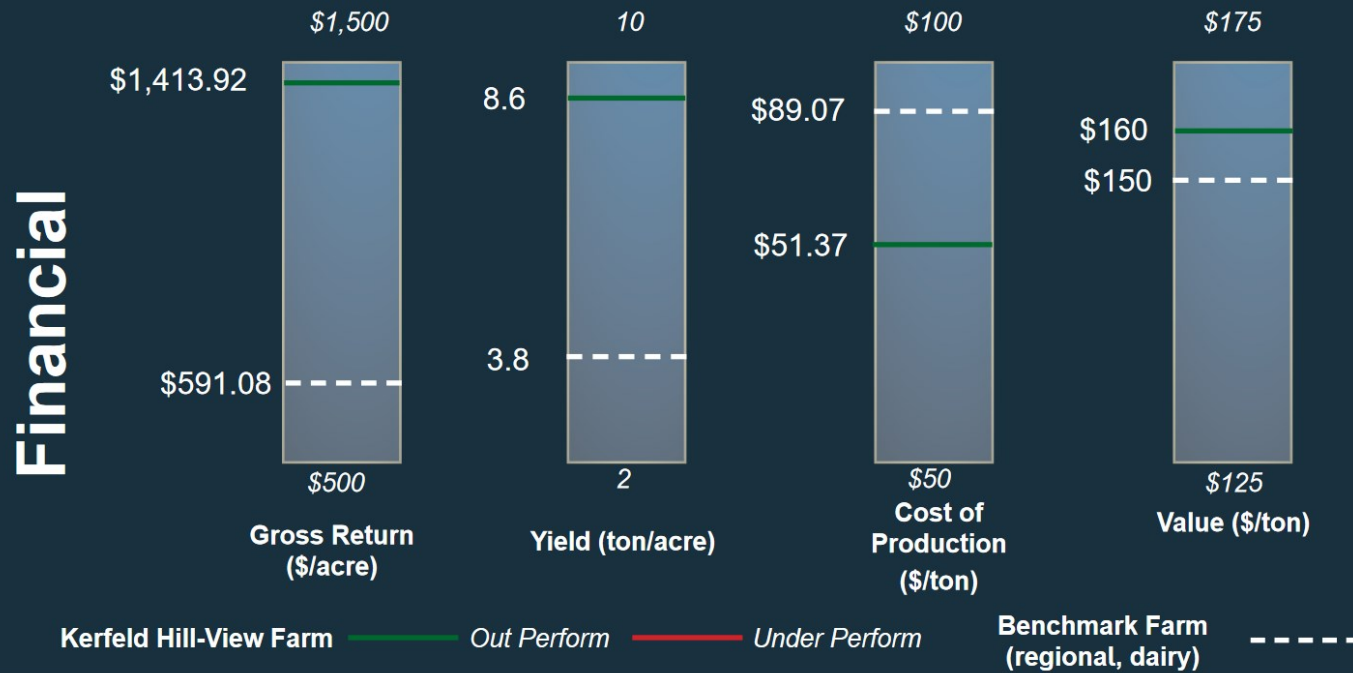
There are costs and benefits from implementing farm practices that exceed normal practices in supporting environmental sustainability. Decisions to implement new practices are impacted by the balancing act of Environmental Sustainability and Financial Viability, as shown to the right.



Farmer Balancing Act

Sample Report Page - prepared by one Partner

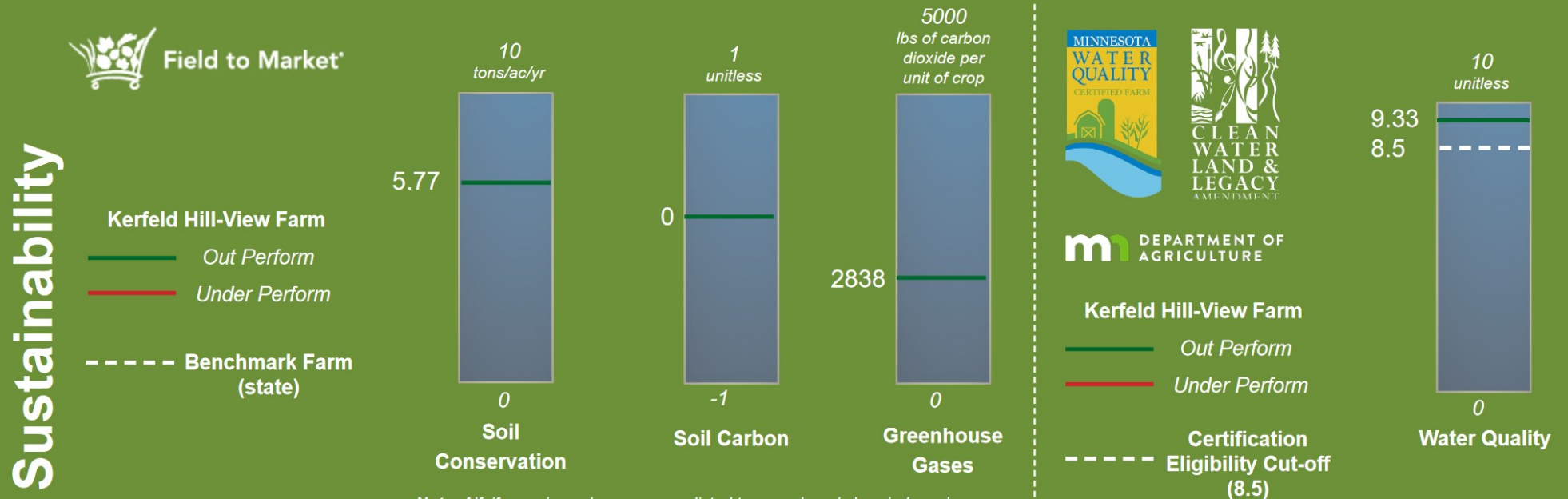
2019 Alfalfa Results



Summary Stats:



Acres: 200
Fields: 14

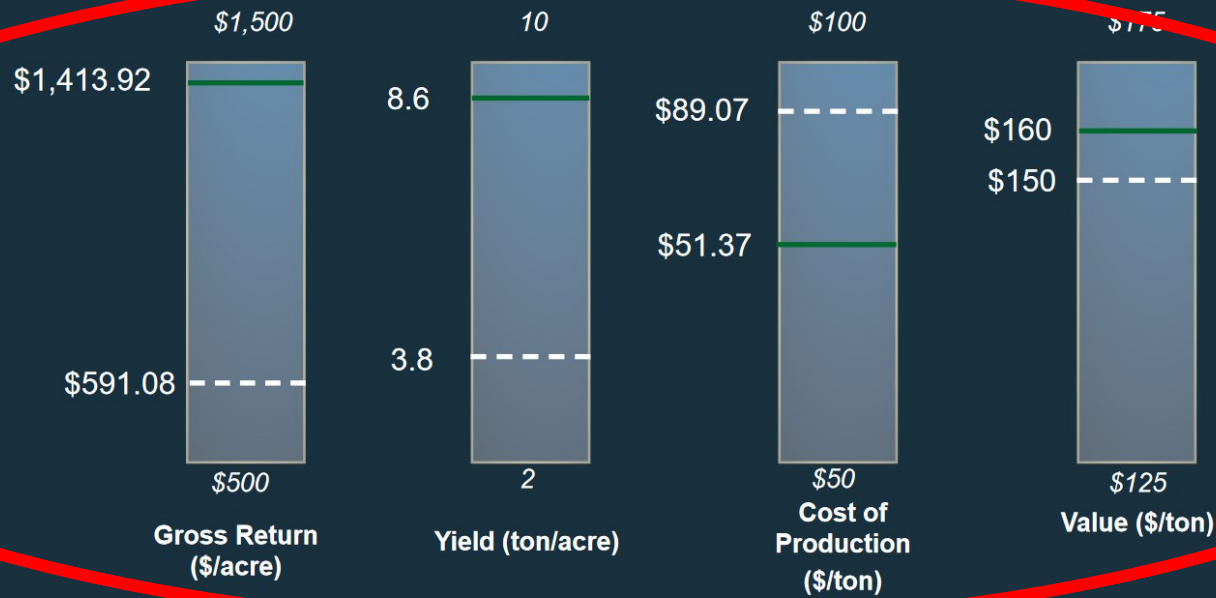


Note: Alfalfa erosion values were predicted to occur largely by wind erosion per the Fieldprint Platform

Sample Report Page - prepared by one Partner

2019 Alfalfa Results

Financial



Kerfeld Hill-View Farm ——— Out Perform ——— Under Perform Benchmark Farm (regional, dairy) - - - - -

Summary Stats:



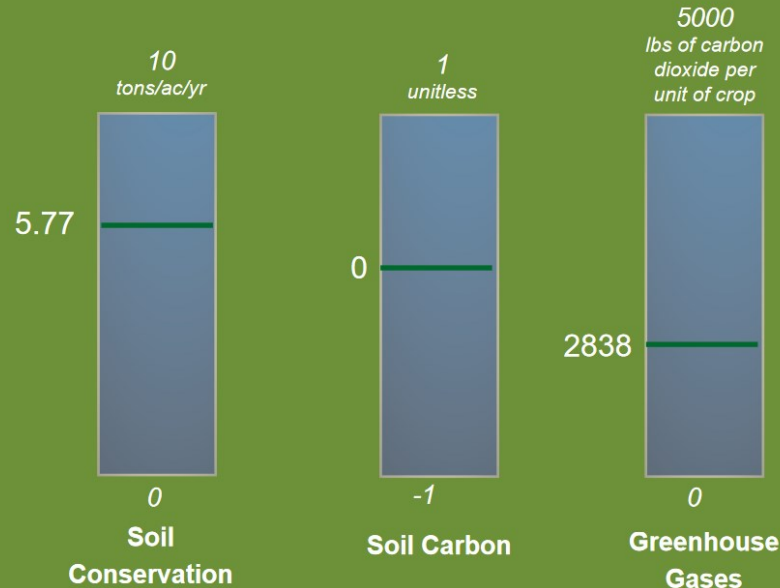
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Sustainability



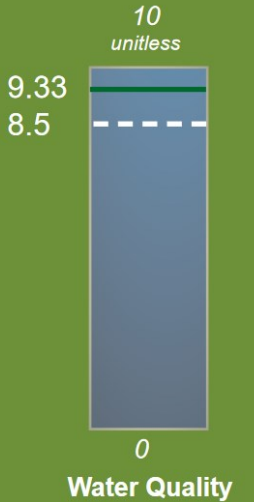
Field to Market*

Kerfeld Hill-View Farm
 ——— Out Perform
 ——— Under Perform
 - - - - - Benchmark Farm (state)



mi DEPARTMENT OF AGRICULTURE

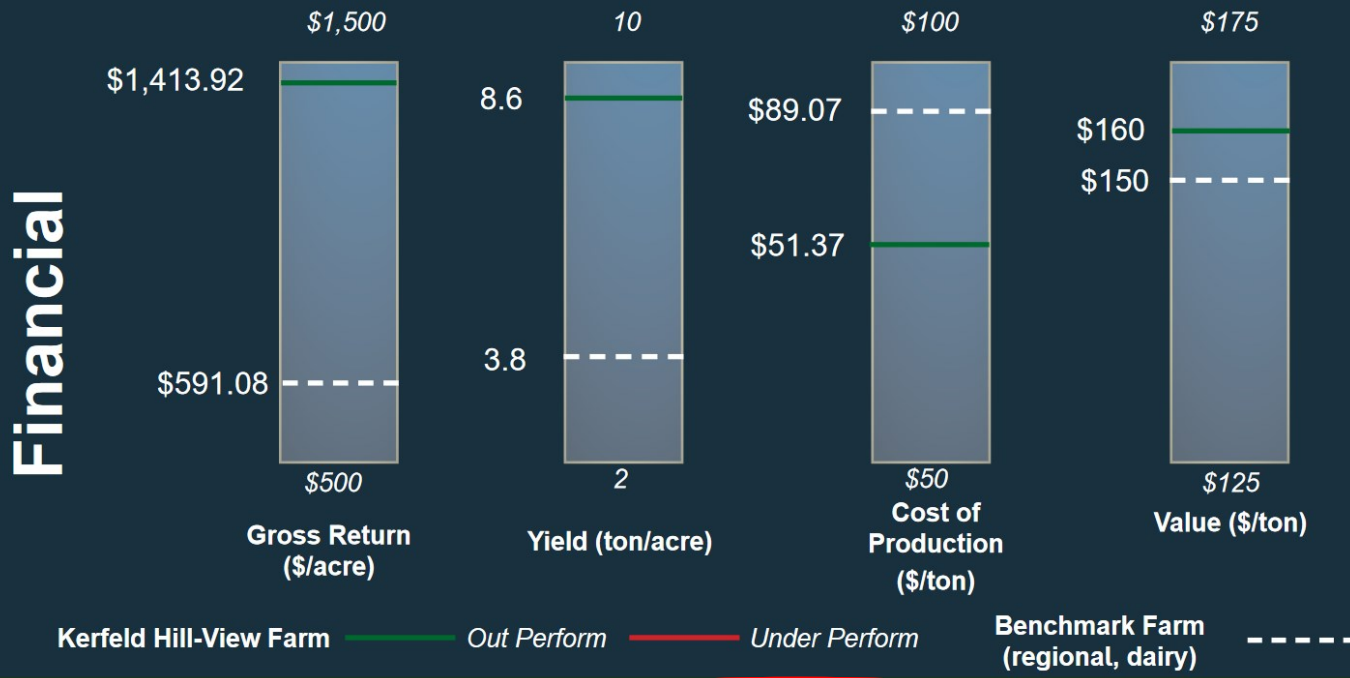
Kerfeld Hill-View Farm
 ——— Out Perform
 ——— Under Perform
 - - - - - Certification Eligibility Cut-off (8.5)



Note: Alfalfa erosion values were predicted to occur largely by wind erosion per the Fieldprint Platform

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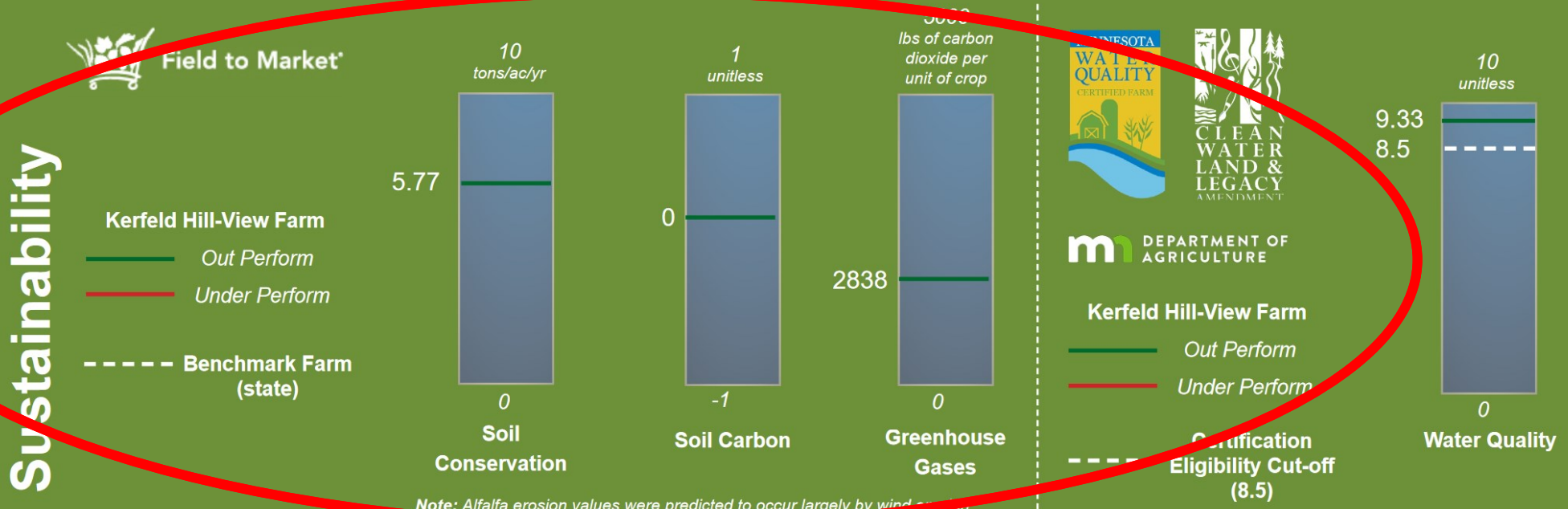
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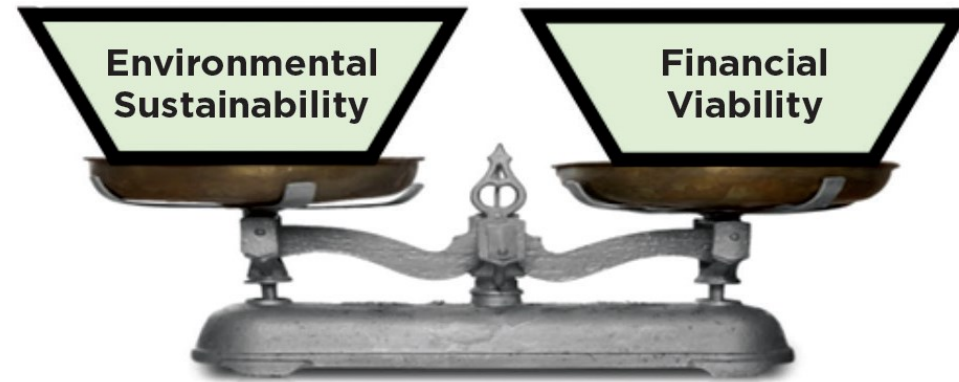


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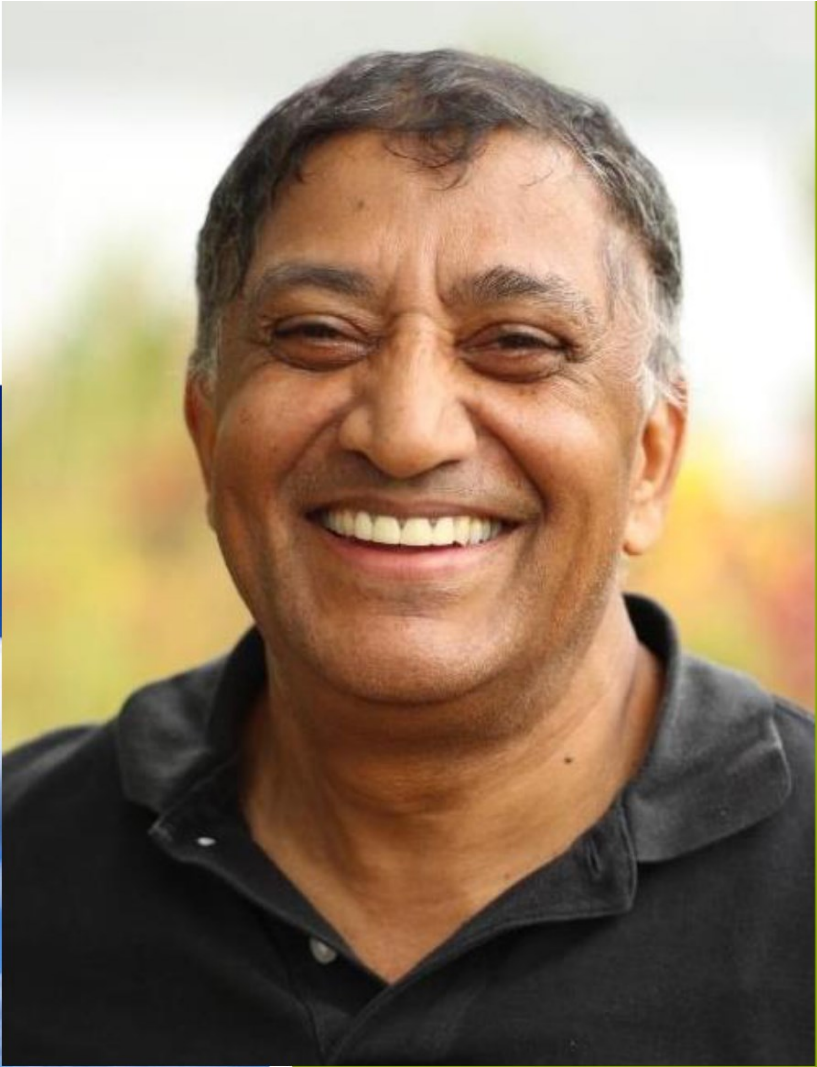
Environmental Metrics and Beyond

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.



Farmer Balancing Act

Other new programs in FBM



MINNESOTA STATE
Agriculture Centers of Excellence

Urban Farm Business Management (UFBM)

Instructor, Dr. Narayan P. Dhakal

FBM Specialty Crops Program

- For Producers of unique crops and unique needs
- Market channel analysis

Farm Business Basics

For Aspiring, Beginner and Veteran Farmers



12 Week Course
Monday Evenings
100% Online
Jan. 9th - March 27th
4 credits
Scholarships Available
Enroll Today!

Learn to:

Write a Business Plan
Identify a Target Market
Price Products Profitably
Track Business & Production Data

Erik Heimark



Farm Business Management Instructor

**FOR ANY & ALL
TYPES OF FARMS!**



Sign up with Erik
erik.heimark@clcmn.edu or call
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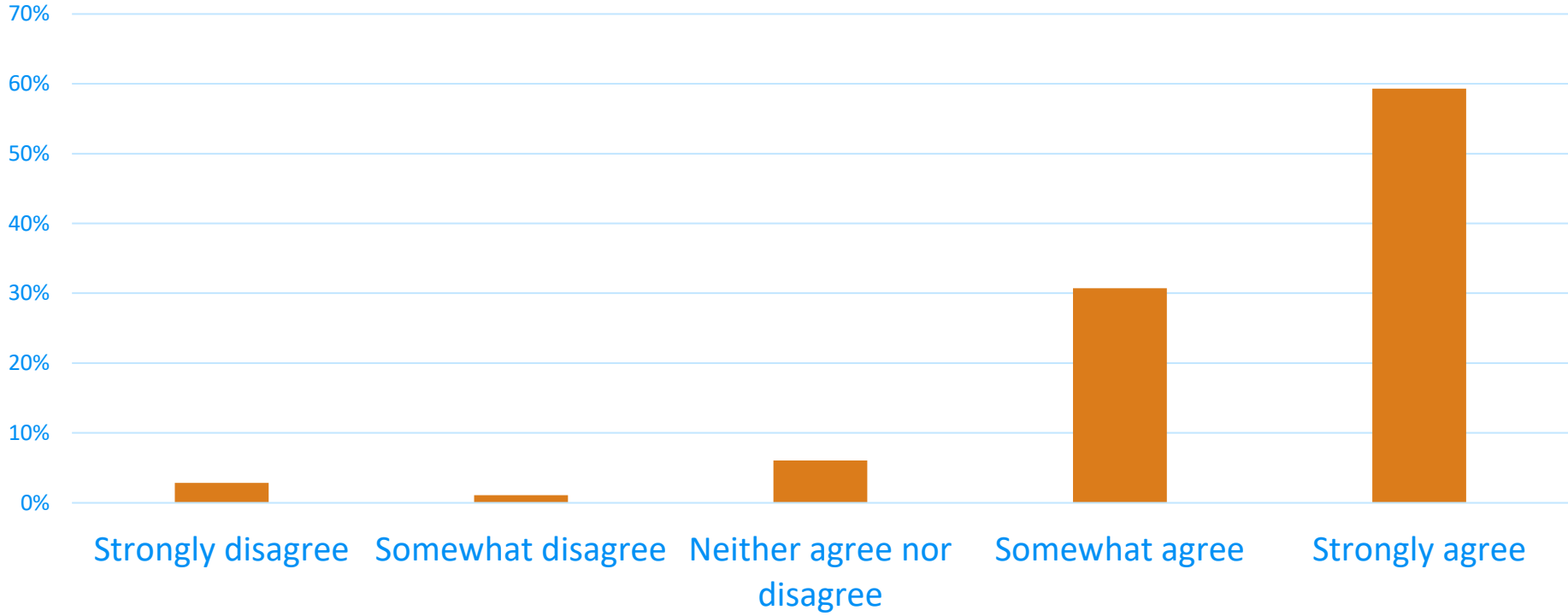
Student (Farmer) Feedback

What do they think about the FBM experience?

What do you like best about the program? (MN FBM)



Your farm is in a better financial position because of your involvement in FBM



FBM Summary:

- Critical to farm economy, policy, and farmer benchmarking.
- Engaging new audiences in conservation economics.
- Creating opportunities for underserved audiences – urban, specialty, and emerging farmers.
- Biggest need: continue robust program funding for Minnesota State and MAELC.
 - Challenge Grants
 - Beginning Farmer Scholarships
 - Need to add urban and specialty scholarships.

Thank you for the opportunity!

Additional resources:

- <http://agcentric.org/education-training/farm-business-management/>
- <https://centerofagriculture.org/farm-business-management/farm-business-management>

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