AFNR
Agriculture, Food, & Natural Resource Education

Of the 35,000 MN AFNR Students:

10,800 10,420 3,300 1,520

Minnesota FFA Members develop premier leadership, personal growth and career success through agricultural education. Students put skills to work as they prepare for future careers and serve others.

Students are career and technical education concentrators, completing at least 240 hours of coursework over four years. These concentrators see improvement in academic performance.

Students earn science credit for an AFNR Course. AFNR students apply science in "Agriculture Topics" related to plants, animals, food and mechanics throughout Minnesota.

Students earn credit for work-based learning. All AFNR students apply classroom instruction and experiential learning while preparing for and exploring career opportunities.

Three Component Model

By taking courses such as environmental sciences, food chemistry, agricultural economics and agricultural mechanics, more than 35,000 Minnesota students gain perspective about key AFNR issues each year.

Students apply AFNR knowledge through participation in the National FFA Organization, a Career & Technical Student Organization for AFNR education.

Students gain skills through building on their classroom knowledge and leadership skills in order to conduct research or obtain employment in an AFNR organization.
Learning by Doing - Minnesota students gain relevant industry skills and food and environmental literacy through classes and experiences related to:

- Agribusiness Systems
- Animal Systems
- Biotechnology Systems
- Environmental Systems
- Food Products & Processing Systems
- Natural Resource Systems
- Plant Systems
- Power, Structural & Technical Systems

FFA makes a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

Year-Round Teacher Support

In addition to teaching a variety of AFNR courses, Minnesota's 270 AFNR teachers also develop students through FFA opportunities and by providing additional experiences. This mentoring often happens outside of the school day and school year.

The Agricultural Education Summer Program grant allowed 43 programs to deliver FFA experiences beyond the school year with $267,600 in matching funds. These funds provided students with:

- Leadership development
- Service learning
- Experiential learning (SAE)
- Career exploration
- Farm safety & rural mental health
- Program development

What do FFA members gain?

Career Success

FFA members work to build skills and financial capacity through Supervised Agricultural Experiences (SAE). In 2018, a focus group of high school seniors completing their FFA experience earned $3.65 million and invested $2.87 million of those earnings back into their experiences or their futures.

More than 4,000 members and supporters attend the State FFA Convention or Regional FFA Events and while attending compete in 28 events, attend tours and workshops, and network with college and industry professionals.

Premier Leadership

1,080 members serve as local, region or state officers, making decisions that impact their schools, communities and FFA as a whole.

Personal Growth

4,400 members participated in workshops and conferences to develop personal success skills: goal setting, public speaking, navigating differences, building confidence, identifying values and more.

Minnesota AFNR is delivered through cooperative effort from these partners:

Minnesota State Colleges and Universities System
Minnesota is home to 37 Minnesota State Post-Secondary Institutions. Total Agriculture, Food, and Natural Resources (AFNR) enrollment in the MN State System for Fall of 2019 was 2520 students.

The average 2019-2020 Student Tuition Cost is $5600 at State Colleges. The average cost at State Universities is $8600. State grant recipients receiving state and Pell grants on average end up paying $893 at State Colleges and $2118 at State Universities. This is evidence of Exceptional Value at MN State Institutions.

In the Minnesota State Colleges and Universities System, there were 461 graduates in AFNR areas of study in 2019.

Top 3 AFNR Programs
1. Agribusiness/Agribusiness Production
2. Natural Resources
3. Animal or Plant Sciences

University of Minnesota
Total AFNR enrollment in the University of Minnesota system was 1969 students for Fall of 2019. 62% of enrollees are female and 38% are male. 16% of students at CFANS are students of color.

There were 549 graduates at the University of Minnesota in AFNR studies in 2019.

Top 3 AFNR Programs
1. Animal Science
2. Environmental Sciences, Policy and Management
3. Nutrition and Food Science

University of Minnesota, Crookston
There were 85 graduates of AFNR programs at the University of Minnesota-Crookston in 2019. For the Fall of 2019, 381 students are enrolled in AFNR programs.

More than 90% of students in AFNR programs across all institutions in the state of Minnesota complete an internship prior to graduation.

Systems Pathways in AFNR
- Agribusiness Systems
- Biotechnology Systems
- Food Products & Processing Systems
- Natural Resources Systems
- Animal Systems
- Environmental Systems
- Plant Systems
- Power Structural and Technical Systems
Agriculture
Job Demand & Outlook

Top areas for new graduate hires are production and sales. Employers noted the positions they are recruiting for, 86% require an associate’s degree and 67% require a bachelor’s degree. 64% of graduate employers use an internship program to recruit new employees. Talent recruitment via social media was up 12% in 2019 over 2017. Facebook remained the top social media site used for recruiting efforts, 80% used. Followed by LinkedIn at 70%.

57% of Agribusinesses surveyed stated that the proportion of females in their workforce has increased. They indicated 26% of their total workforce is female.
(Agcareers.com Agribusiness HR Review 2018-2019)

Agricultural production and processing in Minnesota plays a huge role in the state’s economy as it accounts for $57.5 billion in sales and more than 147,000 jobs. Minnesota ranks fifth in total agricultural production and eighth in livestock production for the nation (www.dli.mn.gov).

Overall employment of agricultural and food scientists in the U.S. is projected to grow 7 percent from 2018 to 2028, faster than the average for all occupations. Employment of agricultural and food scientists is projected to grow as research into agricultural production methods and techniques continues.

Food manufacturing in Minnesota has the largest employment among all manufacturing industries in the state with nearly 51,800 jobs in 2018. These industries pay $2.5 billion in wages.

The state ranks second in food-product related patents per capita. (https://mn.gov/deed/ed/minnesota-industries/ag-food/overview/)

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Estimated Employment 2016</th>
<th>Projected Employment 2026</th>
<th>Percent Increase</th>
<th>Numeric Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farming, Fishing, &amp; Forestry Ops</td>
<td>6135</td>
<td>7477</td>
<td>21.9</td>
<td>1342</td>
</tr>
<tr>
<td>Farmworkers, Laborers, Crop, Nursery</td>
<td>1182</td>
<td>1433</td>
<td>21.2</td>
<td>251</td>
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<tr>
<td>Agricultural Equipment Operators</td>
<td>511</td>
<td>616</td>
<td>20.5</td>
<td>105</td>
</tr>
<tr>
<td>First-Line Supervisors for Farm Workers</td>
<td>159</td>
<td>201</td>
<td>26.4</td>
<td>42</td>
</tr>
</tbody>
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(MN DEED 2016-2026 Employment outlook, 2018)
Farm Business Management is a one on one student led program designed to help the farmer student with financial and business management.

Farm income has dropped over 60% in the past 6 years causing a great deal of stress on farm families and related industries. Farm Business Management is a key catalyst to problem solving in such economic conditions, which supports a stable Minnesota economy.

Farm Business Management faculty can connect farmers dealing with stress to two providers of support. Support is provided by Ted Matthews and Monica McConkey, rural mental health specialists in cooperation with the Minnesota Department of Agriculture and the MinnState System. Monica started in this role on October 1, 2019. Their work is very valuable to support Minnesota farmers and their families.

The Minnesota Department of Agriculture provides nearly 551 beginning farmers with scholarships ($500,000) to enroll in MN Farm Business Management. These scholarships were utilized in a very short amount of time.

Farms successfully complete a whole farm analysis (assessment) with FBM instructors:

<table>
<thead>
<tr>
<th>Year</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td>2,209</td>
</tr>
<tr>
<td>2017</td>
<td>2,164</td>
</tr>
<tr>
<td>2016</td>
<td>2,103</td>
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<tr>
<td>2015</td>
<td>2,071</td>
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<tr>
<td>2014</td>
<td>2,047</td>
</tr>
<tr>
<td>2013</td>
<td>2,091</td>
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</table>

FBM programs are led by the two Agricultural Centers of Excellence

Brad Schloesser 507-389-7263, brad.schloesser@southcentral.edu
Keith Olander 218-894-5163, keith.lander@clcmn.edu
2020 Farm Business Management Programs

- Professional Excellence Program (PEP), an FBM mentorship program supported by MAELC, currently has 14 participants. This program is critical to on-boarding faculty over their first three years of teaching.

- New initiatives that Farm Business Management is involved in this year include, special project around soil health study with select farms, adding new organic farms to the database. This is made possible through a grant with the Center for Farm Financial Management in collaboration with the U of MN, and adding a special sort to select “Water Quality Certified” farms within the database to match environmental and economic data.

- We have partnered with the University of Minnesota Extension to fund an Organic Benchmarking grant for new organic farmers to join the Farm Business Management program. It can cover up to 50% of their tuition.

- Distressed farmer scholarships are a pressing need as we experience farmers who cannot access Farm Business Management due to lack of resources during this economic down-turn.

Multi-Generation Farm Transition Retreats

University of Minnesota Extension and the Minnesota State College and University System have partnered to offer hands-on farm transition education.

- We offer two sessions from which to select:
  Faribault at South Central College on February 28 - 29
  Alexandria at Alexandria Tech & Community College on March 13 - 14

- Farm transition workshops and retreats continue to be offered with over 100 participants in the last year in the retreats alone. This work is in partnership with the U of M Extension.