



# AFNR

## Agriculture, Food, & Natural Resource Education

- Classroom
- Career
- Leadership

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.

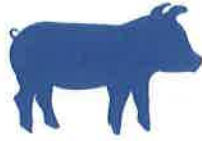
Students gain skills through building on their classroom knowledge and leadership skills in order to conduct research or obtain employment in an AFNR organization.

# 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:



<http://www.mnaged.org/>



<http://mn.gov/maelc/>



[www.mnffa.org/](http://www.mnffa.org/)



[www.mnffa.org](http://www.mnffa.org/)





# Post Secondary Agriculture in Minnesota - 2019



## 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



Animal Systems



Biotechnology Systems



Environmental Systems



Food Products & Processing Systems



Plant Systems

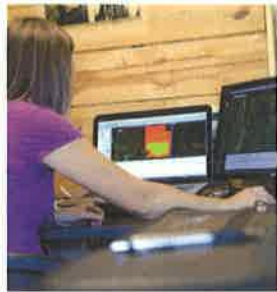


Natural Resources Systems



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. (US Bureau of Labor Statistics, Sep 4, 2019)

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/>)

Occupation	Estimated Employment 2016	Projected Employment 2026	Percent Increase	Numeric Increase
Farming, Fishing, & Forestry Ops	6135	7477	21.9	1342
Farmworkers, Laboreres, Crop, Nursery	1182	1433	21.2	251
Agricultural Equipment Operators	511	616	20.5	105
First-Line Supervisors for Farm Workers	159	201	26.4	42

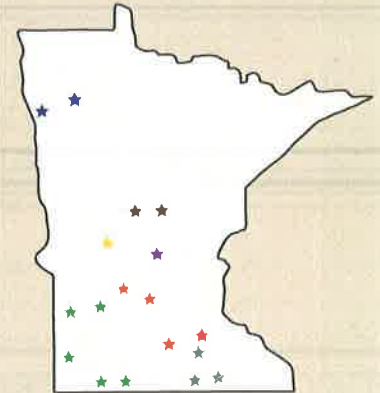
(MN DEED 2016-2026 Employment outlook, 2018)



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Agricultural Centers of Excellence



# 2019-20 MINNESOTA FARM BUSINESS MANAGEMENT OVERVIEW



- 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:

2018 - 2,209 students	2015 - 2,071 students
2017 - 2,164 students	2014 - 2,047 students
2016 - 2,103 students	2013 - 2,091 students

## FBM programs are led by the two Agricultural Centers of Excellence

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## 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.



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