

Minnesota Agriculture, Food & Natural Resources Education

AGRIBUSINESS
SYSTEMS



AGRICULTURAL
MECHANICS



ANIMAL SYSTEMS



ENVIRONMENTAL
SERVICE SYSTEMS



FOOD PRODUCTS &
PROCESSING SYSTEMS



NATURAL RESOURCE
SYSTEMS



PLANT SYSTEMS



Agriculture, Food, and Natural Resources (AFNR) education is led by more than 800 instructors in Minnesota and addresses workforce needs by providing quality instruction in seven career pathways (left). By introducing students to these areas of study, it provides opportunities to gain technical skills, prepares them for future careers, and develops them into leaders for their communities.

Formal AFNR education is based in four sectors:

- School-Based AFNR Education
- Post-Secondary AFNR Education
- AFNR Teacher Preparation & Retention
- Farm Business Management (FBM)

Across all sectors, AFNR education strives to:

- Increase the quality of instruction to prepare strong graduates from diverse backgrounds for current and future careers in AFNR production, education, business, and science
- Increase the access for all students to participate in AFNR education to meet present and future community and industry needs with enough quality AFNR teachers in the classroom
- Ensure AFNR education programs at all levels are fully supported locally and statewide

1 in 10

jobs are related to
agriculture and
food in Minnesota

5

major food
companies
headquartered
in Minnesota

1,731

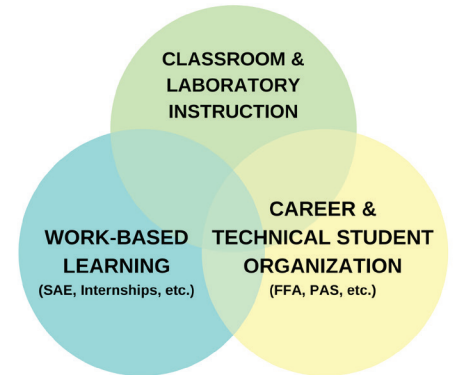
AFNR graduates
**not enough to fill 18,820
AFNR job opportunities*

School-Based AFNR Education

MINNESOTA SCHOOL-BASED AFNR PROGRAMS 2022-2023

- 226 programs
*30 programs in seven-county metro
- 331 teachers
- 40,000 students in grades 7-12
*mainly 9-12
- 15,800 FFA members

The mission of school-based AFNR education is to prepare and support students in middle and high school for careers, build awareness, and develop leadership for the food, fiber and natural resources systems. Every student engages with hands-on classroom instruction, career exploration, and leadership development.



AFNR Teacher Preparation & Retention



College students are prepared for licensure to teach AFNR education at three universities (left) and through Minnesota State 2+2 programs. There are approximately 40 undergraduate students enrolled in teacher preparation programs across the state. The University of Minnesota-Twin Cities also prepares students to become AFNR teachers through their graduate program.

Minnesota works to retain current teachers through mentorship programs and professional development. In addition, there are four mentorship programs in the state for AFNR educators at all levels, as well as a partnership with the Career and Technical Education (CTE) Teacher Induction Program, which supports CTE teachers with a Tier 1 or Tier 2 license or those teaching with an out of field permission.



teachagmn.org

Post-Secondary AFNR Education

Post-secondary AFNR education in Minnesota has a strong focus on career preparation to support students entering the workforce



MINNESOTA STATE

- 32 colleges & universities offer one or more AFNR programs
- 3,803 students enrolled in AFNR programs; 1,132 graduates
- Top 3 program areas: Veterinary Technician; Agribusiness; Environmental Science



- 12 academic departments; 10 research & outreach centers
- 1,790 students enrolled in AFNR programs; 502 graduates
- Top 3 program areas: Animal Science; Environmental Science Policy & Management; Fisheries, Wildlife and Conservation Biology



- 13 majors & 2 minors in AFNR
- 324 students enrolled in AFNR programs; 97 graduates
- Top 3 program areas: Animal Science, Equine Science, Natural Resources

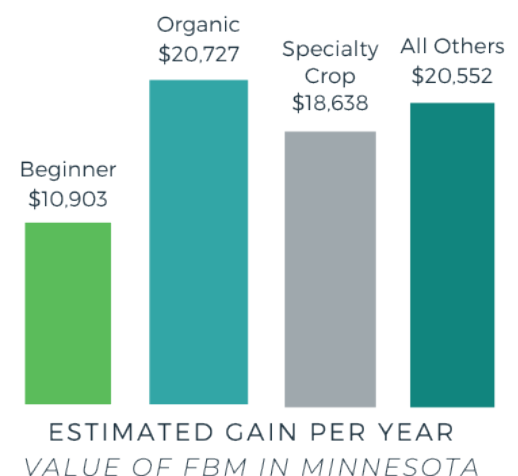
**data from 2022*

Farm Business Management

Farm Business Management (FBM) programs are designed to provide education to farm owners and operators or persons interested in farming. The purpose of the program is to assist students in meeting their business and personal goals, helping them to be successful in a competitive agricultural environment.



FBM is offered at seven colleges in the Minnesota State system by 62 instructors serving 2,800 students in an one-on-one, student-led programming. FBM also provides database benchmarks that support lenders and agency staff in developing plans to best support farmers.



Ongoing AFNR Challenges & Opportunities

- Increasing access to programming and leadership experiences for students and educators
- Identifying industry workforce needs and ensuring programmatic facilities and equipment are industry-aligned
- Having accurate AFNR career opportunity and employment data
- Ensuring flexibility in curriculum to fulfill high school graduation requirements and provide students choice in their schedules, including concurrent enrollment
- Increasing opportunities for student work-based learning/internship experiences and summer programming
- Ensuring the demand is met for quality AFNR teachers and FBM instructors in the classroom, including retaining those currently in the profession
- Addressing inflationary costs that outpace current legislative support, which create a burden on the educational system and impact access for students



Minnesota Agricultural Education Leadership Council (MAELC)

Provides leadership to promote and expand AFNR education in Minnesota through advocacy, engagement and support.



Minnesota Association of Agricultural Educators (MAAE)

Organization of AFNR educators at the high school, post-secondary, and adult levels who seek to advance AFNR education in Minnesota.



MINNESOTA STATE

Agricultural Centers of Excellence

AgCentric is a Minnesota State program that bridges the gap between agriculture & education.

Southern Agricultural Center of Excellence (SACE) serves to promote and establish agricultural education excellence in Minnesota across the industry.

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