

# The 2025 Minnesota Agriculture, Food and Natural Resource Education Blueprint



*Agriculture*



*Food*



*Natural Resource*



*Education*

Prepared by the  
Minnesota Agricultural Education Leadership Council  
(MAELC)



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# Executive Summary

The Minnesota Agricultural Education Leadership Council (MAELC) continues its work to strengthen Agriculture, Food and Natural Resource (AFNR) education in Minnesota by creating this 2025 Blueprint for AFNR Education. The 2025 Blueprint builds on the process and results of the 2012-2017 Blueprint to guide MAELC's strategic planning work. The 2025 Blueprint is based on hundreds of AFNR education stakeholders sharing their views and expertise during six Listening Sessions convened around the state in October 2017. It also includes the work of 37 AFNR education experts who reviewed and elaborated on the results of the Listening Sessions. Listening Session participants and Committee members described an imagined future for AFNR education in 2025, developed goals from those imagined futures, recommended strategies that could achieve those goals, and suggested indicators that would measure how well goals were achieved. Listening Session participants and Blueprint Committee members focused on these five sectors of AFNR education:

- Agricultural Literacy
- School-Based AFNR Education
- Post-Secondary AFNR Education
- Teacher Preparation in Agricultural Education
- Farm Business Management (FBM)

Their vision resulted in the following four broad goals for AFNR education:

1. Increasing the **quality of instruction** – including instructional strategies or methods and content – to prepare strong graduates from diverse backgrounds for current and future careers in AFNR production, education, business, and science
2. Increasing **numbers and types** of students, graduates, teachers, and community members involved in AFNR education to meet present and future needs
3. Making accurate and complete information widely available to students, parents, school administrators, teachers, and employers to **improve understanding** of AFNR systems
4. Ensuring AFNR education programs at all levels are **fully supported** locally and statewide

They produced the following nine recommended strategies to achieve those goals:

1. Improve **access** to experiences that expand knowledge and understanding of AFNR systems
2. Increase or improve **communication** efforts about AFNR education and career opportunities
3. Strengthen AFNR **curricula** (instructional content and strategies) available to teachers
4. Increase the involvement of **underserved or nontraditional** students, teachers, and mentors in AFNR education
5. **Evaluate** barriers and progress made in delivering AFNR education
6. Work with a wider range of **partners** to most effectively deliver AFNR education
7. Provide **professional development** opportunities to teachers to improve programs, retain high quality teachers, and improve educational outcomes for students
8. Strengthen and expand efforts to **recruit** high quality high school and college students and teacher candidates to AFNR education
9. Support the development of human, financial, and information **resources** that support high quality instruction and teacher retention

# 2025 Blueprint Background

The 2025 Minnesota Agriculture, Food and Natural Resource Education Blueprint builds on the 2012-2017 Blueprint and provides a strategic vision for AFNR education in Minnesota. The Minnesota Agricultural Education Leadership Council (MAELC) and its Board of Directors will use the 2025 Blueprint to guide its work over the next seven years to continue to promote high quality and accessible AFNR education in the state.

## Blueprint Process

Developing the 2025 Blueprint followed a process very similar to the one used to develop the 2012-2017 Blueprint. The overall project consisted of conducting Listening Sessions around the state to hear the ideas and perspectives from invited AFNR stakeholders about what AFNR education should accomplish by 2025. Following the Listening Sessions, 37 AFNR education experts worked through the visions for AFNR to develop priority goals, strategies for achieving those goals, and indicators or measures of achieving the goals. MAELC staff and the Blueprint author worked together to analyze results and finalize the Blueprint.

## Listening Sessions

In October 2017, over 200 people attended Listening Sessions at six colleges in the state (Central Lakes College, Brainerd; Ridgewater College, Willmar; South Central College, Mankato; Southwest Minnesota State University, Marshall; University of Minnesota, Crookston; and University of Minnesota, Twin Cities). Participants broke into one of five sector groups depending on their expertise and interest. The sector groups were: Agricultural Literacy, School-Based AFNR Education, Post-Secondary AFNR Education, Teacher Preparation in Agricultural Education, and Farm Business Management.

Listening Session facilitators guided their group in brainstorming and prioritizing “imagined futures” for their sector. The names of facilitators can be found in Appendix B. Groups described what their sector should look like by the year 2025. They finished by selecting the three futures they felt were most feasible to accomplish in seven years that would have the greatest positive impact on AFNR education in Minnesota. Each group also suggested strategies or steps that could be taken to achieve their desired futures. All Listening Session participants also took part in a “Gallery Walk” hosted by sector facilitators where they had the opportunity to review the accomplishments of the other groups and add their own suggested strategies and potential partners for achieving the imagined futures.

## Blueprint Committee Meetings

Blueprint Committees, made up of 37 invited education experts, were convened in November 2017 at the St. Paul campus of the University of Minnesota to build on the accomplishments of the Listening Sessions. Committees reviewed the imagined futures (goals) and strategies developed in the Listening Sessions. They refined the goals and strategies and developed indicators that would provide evidence of progress toward achieving the goals for the sector. Each group met at least once following the initial in-person committee session to finalize their work. Committee members and their affiliations are listed in Appendix C. The Blueprint reflects the work of the Listening Session participants and committee members as well as the review and analysis by MAELC staff and the author of the 2025 Blueprint.

## Overview of the Blueprint

The Blueprint begins with a summary of the goals for all five AFNR education sectors. Each of the subsequent sections includes brief overviews of each sector; goals for the sector based on the imagined futures; recommended strategies for achieving each goal; and indicators that would measure how well each goal was achieved by 2025. Strategies are recommendations for actions AFNR stakeholders could take to achieve goals and are not necessarily actions MAELC can or should take alone. Appendix A lists the number and types of strategies recommended for reaching each goal in each sector.

## Next Steps

MAELC greatly appreciates the commitment of all of those who generously contributed their expertise and time in preparing the 2025 Blueprint. The MAELC Board will review the 2025 Minnesota Blueprint for AFNR Education and use it as part of strategic planning in June 2018 to continue providing strong leadership in supporting and strengthening AFNR education for Minnesota. The Blueprint will be available on the MAELC website: <http://mn.gov/maelc/initiatives.html>

# 2025 Goals for AFNR Education

## Agricultural Literacy

**Goal 1: PERCEPTION.** Students and their families have a more accurate understanding of agriculture and food systems

**Goal 2: INSTRUCTION.** Agricultural literacy instruction uses the most effective approaches to teaching and learning in the K-12 education system

## School-Based AFNR Education

**Goal 1: PERCEPTION.** Agricultural education offers a clear and unique value among more students, parents, teachers, and school administrators

**Goal 2: NUMBERS.** Agricultural education is delivered in more traditional and nontraditional school settings in Minnesota

**Goal 3: SUPPORT.** Local communities are more supportive and involved in school-based agricultural education programs

## Post-Secondary AFNR Education

**Goal 1: NUMBERS.** Post-secondary AFNR programs recruit graduates for employment in rewarding AFNR careers

**Goal 2: INSTRUCTION.** Post-secondary AFNR programs prepare high quality graduates with skills needed for employment in AFNR careers

## Teacher Preparation in Agricultural Education

**Goal 1: NUMBERS.** There is an abundance of high quality and diverse teachers for current and future agriculture programs in Minnesota

**Goal 2: INSTRUCTION.** AFNR teachers are fully prepared to effectively meet the educational needs of their students



## Farm Business Management

**Goal 1: SUPPORT.** The FBM program is highly valued throughout the state and supported both administratively and financially

**Goal 2: NUMBERS.** FBM attracts and maintains adequate numbers and types of farmers to sustain programs that meet the needs of current and future farmers

**Goal 3: NUMBERS.** There are adequate numbers of highly qualified instructors who teach and stay in the profession

**Goal 4: INSTRUCTION.** Content and methods of instruction meet the current and future needs of farmers and stakeholders



# Agricultural Literacy

*An agriculturally literate person is defined as: "A person who understands and can communicate the source and value of agriculture as it affects our quality of life" (National Agricultural Literacy Logic Model, April 2013). Efforts to increase agricultural literacy primarily involve integration of AFNR topics and experiences in the K-12 curriculum, and through community programs and permanent destination exhibits.*

## **Goal 1: Students and their families have a more accurate understanding of agriculture and food systems**

This goal includes having a better understanding of career opportunities in agriculture and agricultural practices, including production, marketing, and labeling; and having an appreciation of the role and contributions of agriculture.

### **Strategies for Achieving Goal 1**

1. Provide "touch points" that show direct career connections to AFNR starting with elementary students, expanding to middle school and high school students, and continuing into post-secondary students
2. Increase AFNR career awareness as part of school districts' career exploration programs
3. Provide agricultural themed, standards-based lessons for each grade level and/or subject
4. Build agricultural literacy into the graduation standards
5. Create and strengthen partnerships among agricultural businesses, organizations, and school district administrators to create authentic AFNR experiences for students
6. Create guidelines for planning and evaluating career and AFNR literacy activities to improve the quality of AFNR experiences
7. Work with Minnesota Department of Education academic area specialists to integrate AFNR into the K-12 educational system

### **Indicators of Achieving Goal 1**

- Increase in agriculture-related post-secondary student enrollment and completion
- Increase in the number of parents, teachers, and school-age children who know about AFNR career opportunities
- Increase in the number of non-AFNR teachers who use AFNR as a context for instruction
- More students, parents, and teachers understand and can describe agriculture production practices and the food system
- Increase in the number of K-12 students who participate in agricultural experiences as part of their education

## Goal 2: Agricultural literacy instruction uses the most effective approaches to teaching and learning in the K-12 education system

This goal includes integrating agriculture, food, and natural resources in the curriculum throughout the K-12 system; making agricultural experiences available to a broad and more diverse group of school-age youth; and using a wider variety of partners for effective outreach.

### Strategies for Achieving Goal 2

1. Add AFNR as a component of teacher licensure or re-licensure to increase the AFNR literacy training and professional development opportunities for teachers
2. Provide or support an AFNR-integration specialist in each school district
3. Build AFNR literacy into the graduation standards, including requiring field trips and funding transportation for AFNR field trips or experiences (e.g., in-person or virtual tours, processing plants, mobile markets, school gardens, outdoor learning centers)
4. Develop a template or tool kit of procedures and checklists for providers of presentations, farm visits, and other AFNR experiences to encourage more people and groups to provide high quality experiences
5. Connect with *Food and Farm Alliance (FFAM)* on developing or administering a statewide AFNR literacy assessment
6. Identify and engage traditional and nontraditional AFNR literacy groups in dialogues to increase the number, quality, and diversity of AFNR experiences for students (e.g., food co-ops, community education)
7. Work with AFNR groups to provide fact-based, unbiased information, and first-hand experiences for the entire family (e.g., UMN Extension, regional partnerships, outreach centers to provide cooking classes, develop gardens, tour farms, create 4-H events)
8. Support summer camps or weekend camps staffed by 4-H and FFA students for a wider range of participants (e.g., homeschool groups, pre-K child care providers, daycare providers, YMCA)
9. Develop and promote the use of a curated central database of credible lessons, activities, speakers, farms, and AFNR groups that can be used by the members of the public with limited access to AFNR information or activities and those already involved in AFNR

### Indicators of Achieving Goal 2

- Increase in the number of non-AFNR teachers who use AFNR as a context for instruction
- Increase in types of agricultural experiences available to K12 students
- Increase in the number of school-age students who have an AFNR experience in or out of school
- More K-12 students know more about food and agricultural practices
- Increase in the diversity of individuals or groups who know about, take part in, and/or sponsor AFNR educational experiences

# School-Based AFNR Education

*The mission of Agriculture, Food and Natural Resource Education is to prepare and support individuals for careers, build awareness, and develop leadership for the food, fiber and natural resources systems. These efforts take place in formal classroom settings mainly in grades 9-12 but also in middle schools.*

*There are currently 194 AFNR education programs in the state, which include 25 programs in the seven-county metro area. Programs are taught by 253 agriculture teachers with 50 of these programs staffed by two or more teachers. In 2017-2018, there were 21,833 students enrolled in programs organized around the agricultural career pathways of food production and processing; plant systems; animal systems; agribusiness; natural resource systems; power, structural and technical systems; biotechnology; and environmental sciences. Of these students, 10,400 have chosen to participate in Minnesota FFA, a Career and Technical Education Student Organization (CTSO).*

## **Goal 1: Agricultural education offers a clear and unique value among more students, parents, teachers, and school administrators**

This goal includes attracting more nontraditional or underrepresented students into AFNR classes or programs and emphasizing career exploration and preparation in AFNR programs in schools.

### **Strategies for Achieving Goal 1**

1. Develop a formalized process that is utilized each year for evaluating challenges; identifying, and allocating resources; and implementing innovative solutions that engage more students from more diverse backgrounds
2. Provide support to attract and allow students from diverse backgrounds to become involved and access AFNR career exploration and leadership development opportunities
3. Provide professional development for teachers to enhance their ability to work effectively with diverse students
4. Recruit, prepare and hire teachers/mentors that reflect the communities they serve
5. Provide resources to encourage programs to utilize National Quality Program Standards (NQPS) as an evaluation tool to increase well-roundedness of programs
6. Build stronger local networks of partners to deliver quality, relevant programming including career preparation, leadership development, and individualized experiential learning opportunities

## Indicators of Achieving Goal 1

- Demographics of students enrolled and participating in AFNR classes, leadership development (FFA), and experiential learning through Supervised Agricultural Experiences (SAE) reflect that of the entire student body and community (e.g., race, language, gender, socio-economic status, urban/rural, farm experience)
- Increase in the number of programs offering quality, comprehensive AFNR coursework, including FFA and SAE, as measured by NQPS standards
- Increase in the number of programs implementing career development within AFNR pathways that include exploration, skill development, and understanding post-high school credentialing
- Increase in the number of high school graduates who pursue careers and/or post-secondary education in AFNR

## Goal 2: Agricultural education is delivered in more traditional and nontraditional school settings in Minnesota

This goal includes ensuring programs - including leadership development (FFA) and experiential learning (SAE) - are available to all and innovative relevant AFNR coursework is developed to meet the needs of all Minnesota students.

## Strategies for Achieving Goal 2

1. Provide regional specialists to support educational AFNR activities and promote the development of new AFNR programs for students in grades 7-12
2. Support the development and delivery of more or new AFNR courses and delivery options (e.g., virtual reality, summer programs, or nontraditional/innovative experiences) in grades 7-12 that are relevant for current and future careers, applicable to diverse populations, include support for a career preparation continuum, and provide a pathway to FFA membership
3. Provide resources to increase the number of leadership and experiential learning opportunities available to local students

## Indicators of Achieving Goal 2

- Increase in the number of programs offering quality, comprehensive AFNR coursework that includes FFA and SAE, as measured by NQPS standards
- Increase in the percentage of students locally and statewide who participate fully in AFNR programs (e.g., number of concentrators, active FFA members, or students with an SAE)
- Increase in the number of innovative strategies developed or adopted for meeting the needs of students, communities, and/or employers through existing AFNR programs
- Increase in the number of nontraditional or innovative methods used to provide AFNR education opportunities for students

## Goal 3: Local communities are more supportive and involved in school-based agricultural education programs

This goal includes communities increasing support or involvement in delivery of programs (e.g., teaching, guest lecturing, providing work-based, experiential learning opportunities, acting as coaches, mentors, area experts); and community members having a better understanding of agriculture and the value of AFNR programs and careers.

### Strategies for Achieving Goal 3

1. Support teachers in building relationships for community development (e.g., professional development, effective strategies, summer program funding, regional or statewide support networks) to create or support struggling programs
2. Encourage active use of quality advisory committees (e.g., use of the Minnesota State/Minnesota Department of Education Advisory Committee Handbook)
3. Increase the amount and type of resources available for communicating the nature and value of AFNR education including utilizing community and school leaders as strong partners in AFNR programming and reputation
4. Share resources and successes of local programs that develop strong relationships with the school and community as learning and collaboration points for other programs
5. Develop presentations about AFNR school programs for local and state stakeholder groups using consistent and effective messaging

### Indicators of Achieving Goal 3

- More AFNR teachers indicate their local programs are supported by an adequate network of community supporters/mentors who help to deliver the total AFNR program, including FFA and SAE
- More AFNR teachers express the view that the level and type of community engagement in program delivery benefits their work-life balance and the quality of their local program
- Stakeholder groups have an increased understanding and respect for the goals and value of AFNR programs offered in their schools
- School and community stakeholders believe their local AFNR program reflects their values and needs
- Number of AFNR programs that continue after the retirement or resignation of the current teacher

# Post-Secondary AFNR Education

*Post-secondary AFNR education in Minnesota is comprised of programs of study in agriculture, food, and natural resources with a strong focus on career preparation. Although Agricultural Education teacher preparation and Farm Business Management (FBM) are taught in the post-secondary system, they are considered separately for this Blueprint.*

*Fourteen institutions in the Minnesota State Colleges and Universities (Minnesota State) system offered AFNR programs that served 748 students during the 2017 fall semester. AFNR programs at the University of Minnesota-Crookston and the University of Minnesota-Twin Cities served another 382 and 2,057 students, respectively. The top three Minnesota State System programs in 2017 were Agribusiness/Agribusiness Production, Landscaping and Grounds Keeping, and Crop Science. The top three programs at the University of Minnesota were Animal Science, Environmental Sciences Policy and Management, and Food Science. In 2016, there were 984 AFNR certificates, diplomas, or degrees awarded from all programs.*

## **Goal 1: Post-secondary AFNR programs recruit graduates for employment in rewarding AFNR careers**

This goal includes attracting more diverse students to AFNR post-secondary programs; closing the gap between the number of qualified AFNR graduates and the demand for employees in AFNR careers; and increasing the number of post-secondary students who view AFNR careers as desirable.

### **Strategies for Achieving Goal 1**

1. Create a unified message and identify relevant and effective strategies for recruitment
2. Promote AFNR careers/pathways among students (K-14), parents, guidance counselors, work centers, teachers, etc.
3. Identify specific Minnesota careers and pathways that are most in demand by employers and target these areas for recruitment into post-secondary programs
4. Recruit and provide funding for nontraditional and/or underrepresented AFNR students (e.g., students interested in the environment, robotics, gardening; students who are in home schools or charter schools) to attend programs (e.g., Minnesota FFA inTENse Conference) to increase awareness of post-secondary AFNR pathways
5. Fund opportunities (e.g., experiences, internships) to connect potential students with modern AFNR technology to broaden their perception of agriculture
6. Develop and fund an outreach contact (e.g., academic adviser, faculty member) for Minnesota State to expand enrollment in AFNR programs

## Indicators of Achieving Goal 1

- Increase in the percentage of applicants to Minnesota post-secondary institutions who select a post-secondary AFNR major/program
- Demographics of students enrolled in Minnesota post-secondary AFNR programs align with those of the school or community (e.g., gender, race, rural/urban, veterans, culture, orientation)
- Increase in the number of AFNR graduates from Minnesota schools
- Increase in employment (including self-employment) of AFNR graduates in AFNR jobs
- Reduced gap between the number of AFNR graduates and the number of unfilled AFNR positions in the state

## Goal 2: Post-secondary AFNR programs prepare high quality graduates with skills needed for employment in AFNR careers

This goal includes fully preparing AFNR post-secondary graduates for careers in AFNR and ensuring post-secondary AFNR educators and programs meet current industry standards and needs.

## Strategies for Achieving Goal 2

1. Encourage more AFNR employers to provide experiences for post-secondary AFNR students (e.g., mentorships, internships, job shadow, career fairs, site visits, guest speakers, advisory boards)
2. Create and promote the use of a database of available AFNR experiences (job shadowing, internships, and/or diversity experiences) at AFNR businesses, non-profits, and agencies to increase the participation of post-secondary AFNR students
3. Encourage the participation of post-secondary AFNR instructors in professional development opportunities to keep instructional methods and curriculum up to date with industry standards
4. Create professional development opportunities (e.g., mentorship, immersion experience) for post-secondary faculty to properly instruct and build relationships with nontraditional AFNR students
5. Develop a partnership with the Minnesota post-secondary faculty unions to facilitate an instructor recruitment and credentialing process
6. Increase the number or type of opportunities to be credentialed in post-secondary AFNR
7. Develop a communication strategy to recruit people working in AFNR businesses and secondary teachers to pursue Minnesota State credentialing
8. Facilitate increased concurrent enrollment to improve student outcomes and encourage secondary instructors to become credentialed



## Indicators of Achieving Goal 2

- Increase in the percentage of graduates who are placed or self-employed in AFNR employment after graduation
- More AFNR employers are satisfied with the preparedness or quality of new hires
- More AFNR graduates feel well prepared for their careers in the first year of employment or self-employment
- More post-secondary AFNR educators participate in relevant professional development opportunities annually
- Increase in the number of credentialed post-secondary AFNR instructors



Graphic Credit: The National Council for Agricultural Education

# Teacher Preparation in Agricultural Education

*College students are prepared for licensure to teach Agricultural Education at Southwest Minnesota State University-Marshall, the University of Minnesota-Crookston, the University of Minnesota-Twin Cities, and Minnesota State 2+2 programs. There are approximately 54 undergraduate students enrolled in teacher preparation programs at the three universities. The University of Minnesota-Twin Cities also prepares students to become agriculture teachers through their graduate program. Agricultural Education also offers Professional Development and Continuing Education programs for beginning and established teachers.*

## **Goal 1: There is an abundance of high quality and diverse teachers for current and future agriculture programs in Minnesota**

This goal includes having multiple licensure pathways that are effectively communicated and better understood; having an increased pool of high quality and diverse teacher candidates through effective recruitment; and retaining high quality teachers in the profession.

### **Strategies for Achieving Goal 1**

1. Provide resources that allow each secondary AFNR education program to receive a visit from an Agricultural Education recruiter at least once per year
2. Strengthen marketing, rebranding, and communication at all Minnesota colleges and high schools with Agricultural Education programs to increase interest in teaching as a college major and career
3. Create a task force made up of representatives from Minnesota State; the University of Minnesota, industry partners, Agricultural Education/Career & Technical Education leadership, Minnesota Association of Agriculture Educators (MAAE), and rural and urban school administrators to develop strategies for increasing enrollment in agricultural education teaching majors
4. Offer recruitment and partnership activities to attract a broad range of candidates, including continuing Minnesota FFA inTENse Conference and reinstating Agriculture Teacher Immersion Camp
5. Support workshops for college instructors and advisors in structuring courses, messaging, and advising students about opportunities in teaching
6. Explore collaborating with Minnesota State Centers of Excellence in Agriculture to develop and promote the use of a database organized by career pathways to guide students in planning for the second half of their college education
7. Work with Minnesota Association of Agricultural Educators (MAAE) to develop an undergraduate section of MAAE conferences and summer workshops for Minnesota and regional student teacher candidates

## Strategies for Achieving Goal 1 (continued)

8. Explore, develop, and communicate alternate preparation models or pathways to licensure
9. Encourage all three Minnesota universities offering Agricultural Education to offer dual licensure opportunities and ensure licensure will continue to be awarded as a 5-year license
10. Update the 2+2 (transfer partners) program framework - including articulation agreements - and communicate it to students and colleges
11. Increase financial incentives (e.g., scholarships, internships) for Agricultural Education students to stay in the major and profession and/or starting an AFNR Education Foundation for Scholarships
12. Explore and support efforts such as the *Minnesota Teacher Induction Program (TIP)*, *Resources for Professional Learning (RPL)*, and other programs for beginning teachers

## Indicators of Achieving Goal 1

- Alignment of demographics of pre-service and practicing teacher with their high school students
- Increase in the enrollment of the teaching option among Agricultural Education majors by 10% per year
- 70% conversion rate of graduates to teachers
- Annual retention rate of agriculture teachers is maintained at 95%



## Goal 2: AFNR teachers are fully prepared to effectively meet the educational needs of their students

This goal includes teachers possessing expertise in multiple AFNR content areas that prepare their students for successful careers; teacher candidates teaching effectively in the context of many types of student diversity; new and established teachers taking advantage of professional development opportunities to continuously improve their practice; and teacher candidates utilizing a variety of relevant and practical teaching strategies to enhance student success through experiential learning, classroom instruction, and leadership.

### Strategies for Achieving Goal 2

1. Support all teacher preparation programs in including Curriculum for Agricultural Science Education (CASE) certifications for all AFNR teachers as part of the curriculum
2. Offer an extended “boot-camp” before the first year of teaching – and for current teachers as Continuing Education Credit (CEU) – to focus on specific content areas
3. Provide opportunities for future teachers to experience diversity of all sorts and develop skills of cultural teaching competence through coursework and learning experiences and existing programs such as the United State Department of Agriculture-Farm Service Agency Rural Youth Loan program
4. Support teacher preparation programs in developing an assessment of student teacher performance in using diverse teaching strategies, including navigating diversity
5. Facilitate or support workshops, job-shadowing, and reverse shadowing involving AFNR industry, secondary and post-secondary AFNR and science teachers; FBM instructors; and AFNR teacher educators
6. Provide focused training for new teachers in consolidating and standardizing course content, navigating resources for on-boarding new teachers, and professional networking
7. Increase summer internships for credentialing and building confidence in entering the profession
8. Encourage attendance at MAAE conference workshops by offering scholarships through support from AFNR stakeholders
9. Facilitate alignment of topics offered in MAAE conference workshops with content areas teachers identify as areas needing improvement
10. Seek major funders to create a database of developed and consistent lesson plans, curricula, and related teaching resources for AFNR teachers in the state
11. Explore co-teaching, mentoring, and overlap programs to support the development and retention of new teachers
12. Explore ways to offer recognition and incentives for years of teaching (e.g., grants, sponsorships, scholarships for travel, professional development)

## Indicators of Achieving Goal 2

- 90% of teachers attend MAAE summer conference and/or Ag Tech conference annually
- 100% of teachers attend at least one AFNR-related professional development event annually
- Increase in the teacher's confidence in their ability to effectively navigate diversity
- Increase in the student teacher's performance score on a to-be-developed assessment or observation of their use of a variety of relevant and practical teaching strategies, including navigating diversity

# Farm Business Management

*Farm Business Management (FBM) instruction is concerned with developing a farmer's knowledge of economic principles and decision-making processes. The object of the instruction is to help farmers apply these approaches or sets of principles to their business to meet their goals. FBM is offered online and at eight college campuses in the Minnesota State system by 66 instructors serving 2,602 students.*

## **Goal 1: The FBM program is highly valued throughout the state and supported both administratively and financially**

This goal includes stakeholders understanding the public value of FBM and FINBIN databases; engagement and collaboration among stakeholders on the value of FBM programs; broad administrative support of FBM; and adequate funding for maintaining and growing the FBM program.

### **Strategies for Achieving Goal 1**

1. Each FBM college holds at least five stakeholder meetings annually
2. Develop a statewide communication plan to promote the value of the FBM program
3. Communicate the limitations of the current credentialing process on program growth to legislators and credentialing committee for Minnesota State
4. Create key messages about the value of FBM programs to share with college administrators, legislators, and other stakeholders
5. Maintain and grow financial support through legislative funding and other financial partners
6. Keep program costs manageable by employing new delivery strategies to broaden efficiencies
7. Evaluate the FBM program and database to quantify its value to the state and students

### **Indicators of Achieving Goal 1**

- Number of annual stakeholder meetings hosted by each college
- Number of external stakeholder meetings where FBM is requested to share information
- Number of college presidents who express the value of FBM program
- Amount of funding for FBM programs supported by the state legislature
- Increase in the number of partners who contribute financially to the FBM program
- Number of programs whose expenditures are maintained at a fiscally responsible level



## Goal 2: FBM attracts and maintains adequate numbers and types of farmers to sustain programs that meet the needs of current and future farmers

This goal includes retaining existing FBM students; increased participation in FBM through targeted marketing; and expanding FBM programs into more diverse populations.

### Strategies for Achieving Goal 2

1. Continue mentorship programs during FBM instructor transitions to support the retention of current students
2. Increase publicity and promotion of FBM programs to stakeholder groups such as lenders, cooperatives, and commodity groups
3. Develop a social media marketing plan to recruit new and diverse FBM students
4. Utilize the FBM Specialty Crops program as a model to expand into other nontraditional areas
5. Increase programming to underserved populations, including an emphasis on metropolitan area

### Indicators of Achieving Goal 2

- Maintain enrollment levels for returning students enrollment
- 15% increase in enrollment in FBM, with student numbers reflecting instructor expansion
- Increase in the number of students from underserved populations enrolled in FBM programs
- Increase in the number of metropolitan or other specialty program offerings

## MN Farm Business Management Programs



## **Goal 3: There are adequate numbers of highly qualified instructors who teach and stay in the profession**

This goal includes recruiting highly qualified instructors for the FBM program; preparing effective FBM instructors; and retaining FBM instructors in the profession.

### **Strategies for Achieving Goal 3**

1. Increase the number of post-secondary agriculture programs that promote FBM as a career
2. Develop statewide effort to promote FBM as a profession with a focus on former or current FBM students, secondary and post-secondary instructors, and potential new audiences
3. Expand the internship/shadowing experience of the secondary teacher preparation program to promote exploration of FBM as a career option
4. Expand mentorship, transition, and professional development programs, with a priority for supporting all incoming instructors
5. Identify and address issues affecting retention by measuring faculty satisfaction ratings on a regular basis
6. Maintain the quality of the Professional Excellence Program (PEP) to aid in instructor retention, with additional resources and training for first year instructors

### **Indicators of Achieving Goal 3**

- Number of qualified FBM instructors recruited
- Views of FBM instructors that indicate job satisfaction and retention in the profession
- Faculty retention rates



## Goal 4: Content and methods of instruction meet the current and future needs of farmers and stakeholders

This goal includes ensuring topics covered in instruction address current and on-going needs of farmers; instructors use instructional strategies and formats that are sustainable, accessible, and reinforce high quality instruction; and the continuation of family farms through planned farm transition.

### Strategies for Achieving Goal 4

1. Develop an inventory identifying instructor areas of expertise
2. Provide opportunities for professional development in specialized areas
3. Use like-minded peer groups of instructors to develop educational opportunities in specialty areas (e.g., robotics, precision data management)
4. Evaluate instructional content by incorporating feedback from advisory committees
5. Support technology platforms that confidentially integrate student enterprise financial information
6. Expand the annual instructor assessment to include development of farm transition plans

### Indicators of Achieving Goal 4

- Maintain returning student enrollment
- Increase in the number of courses offered in specialized areas, including specialty crop classes
- Increase in the number and type of instructional technologies and delivery methods available to instructors
- Increase in the number of instructors who use new technologies and alternative delivery methods

# Appendix A: Recommended Strategies

## Strategies Recommended for Achieving Sector Goals

Listening Session participants and Expert Committees recommended strategies for achieving the goals for each sector of AFNR education. The following lists summarize the four goals that encompass individual sector goals and the nine strategies suggested for reaching those goals. The following table indicates the number of times a strategy was suggested for each goal in the five AFNR education sectors.

### Broad Goals for all AFNR Education Sectors:

1. **Instruction:** Increasing the quality of instruction – including instructional strategies or methods and content – to prepare strong graduates from diverse backgrounds for current and future careers in AFNR production, education, business, and science
2. **Numbers:** Increasing numbers and types of students, graduates, teachers, and/or community members are involved in AFNR education to meet present and future needs
3. **Perception and Understanding:** Accurate and complete information is widely available to students, parents, school administrators, teachers, and employers to improve understanding of agriculture, food, and natural resource systems
4. **Support:** AFNR education programs at all levels are fully supported by their local and statewide constituents

### Strategies to Achieve Goals:

1. **Access-Experiences:** Provide activities or improve access to activities that expand knowledge or understanding of AFNR
2. **Communication:** Increase or improve communication efforts about opportunities and issues in AFNR
3. **Curriculum:** Strengthen instructional content and strategies used by teachers/instructors
4. **Diversity:** Increase the involvement of underserved or nontraditional audiences in AFNR education
5. **Evaluation:** Assess barriers and progress made in delivering AFNR education
6. **Partnerships:** Work with a wider range of partners to most effectively deliver AFNR education
7. **Professional Development:** Provide professional development opportunities to teachers/instructors to improve programs, retain high quality teachers, and improve educational outcomes for students
8. **Recruitment:** Develop and support efforts to increase the quality, quantity, and diversity of teacher/instructor candidates
9. **Resources:** Provide or support the development of resources that improve instruction and retention of teachers/instructors

## Appendix A Table: The Number of Times a Strategy was Recommended for Reaching a Goal for Each Sector

Goals	Strategies									
	Access	Communication	Curriculum	Diversity	Evaluation	Partnerships	Professional Development	Recruitment	Resources	
<b>Agricultural Literacy</b>										
1. Perception	3	0	5	1	2	2	1	0	0	2
2. Instruction	3	0	1	1	1	0	1	0	0	2
<b>School-Based AFNR Education</b>										
1. Perception	0	0	0	2	2	1	1	0	0	0
2. Numbers	1	0	1	0	0	0	0	0	0	1
3. Support	0	3	0	0	0	0	1	0	0	1
<b>Post-Secondary AFNR Education</b>										
1. Numbers	1	1	0	1	0	0	0	1	1	1
2. Instruction	1	1	0	1	0	2	2	0	0	1
<b>Teacher Preparation in Agricultural Education</b>										
1. Numbers	1	2	0	1	0	0	3	3	3	2
2. Instruction	0	0	2	1	0	0	6	0	0	3
<b>Farm Business Management</b>										
1. Support	0	3	1	0	1	1	0	0	0	1
2. & 3. Numbers	0	1	2	1	1	0	3	2	0	0
4. Instruction	0	0	1	0	2	0	1	0	0	2
<b>Total</b>	<b>10</b>	<b>11</b>	<b>13</b>	<b>9</b>	<b>9</b>	<b>6</b>	<b>19</b>	<b>6</b>	<b>6</b>	<b>16</b>

## Appendix B: Listening Session Facilitators

Thank you to the following people for their work facilitating Listening Sessions:

- Judy Barka
- Jim Boerboom
- Mary Kay Delvo
- Sue Knott
- Del Lecy
- Marianne Lorensen
- Natasha Mortenson
- Keri Sidle
- Amy Smith
- Julie Tesch
- Juleah Tolosky

# Appendix C: 2025 Blueprint Committee Members

Name	Organization	Sector
Tom Appel	Minnesota Association of Agricultural Educators	Teacher Preparation
Judy Barka	AgCentric	Post-Secondary
Mike Boland	University of Minnesota	Post-Secondary
Toni Dauwalter	Eastern Carver County School District	Agricultural Literacy
Kristin Digiulio	Inver Hills Community College	Post-Secondary
McKenzie Gregory	Rockford Middle School	Agricultural Literacy
Brad Greiman	University of Minnesota	Teacher Preparation
Paul Hansen	Land O'Lakes, Inc.	Post-Secondary
Kristin Harner	Minnesota Farm Bureau	Agricultural Literacy
Tiffany Hulinsky	Central Lakes College	Post-Secondary
Jeralyn Jargo	Minnesota State Colleges & Universities	School-Based
Stephen Jones	Little Falls Community Schools	School-Based
Sue Knott	Minnesota Agriculture in the Classroom	Agricultural Literacy
Mike Kutzke	Ridgewater College	School-Based
Paul Lanoue	Minnesota West Community & Technical College	Farm Business Management
Joel Larsen	Minnesota Department of Education	School-Based
Del Lecy	Central Lakes College	Farm Business Management
Sarah Lee	Springfield High School	Teacher Preparation
Gena Lilienthal	South Central Agri-Science Academy	School-Based
Kim Lippert	Ridgewater College	Teacher Preparation
Mike Miron	Forest Lake High School	Post-Secondary
Doris Mold	Sunrise Ag Associates, LLC	Farm Business Management
Keith Olander	AgCentric	Farm Business Management
Kevin Paap	Minnesota Farm Bureau	Farm Business Management
Bob Quist	Minnesota Historical Society, Oliver Kelley Farm	Agricultural Literacy
Jessica Rollins	Farmamerica	Agricultural Literacy
Eric Sawatzke	West Central Area High School	School-Based
Brad Schloesser	Southern Minnesota Center of Agriculture	Post-Secondary
Amy Smith	University of Minnesota	Teacher Preparation
Wally Thomas	Bremer Bank	Farm Business Management
Ellen Thompson	National Teach Ag Campaign	Teacher Preparation
Gerald Toland	Southwest Minnesota State University	Teacher Preparation
Juleah Tolosky	Minnesota FFA Association	School-Based
Pam Uhlenkamp	South Central College	Farm Business Management
Pauline VanNurden	Center for Farm Financial Management	Farm Business Management
Lyle Westrom	University of Minnesota Crookston	Teacher Preparation
Mohammed Yakub	University of Minnesota	Agricultural Literacy

# 2025 Blueprint for Agriculture, Food and Natural Resource Education, March 2018

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## **About the Minnesota Agricultural Education Leadership Council (MAELC):**

*Established in 1997 by the Minnesota Legislature, MAELC is comprised of seventeen educators, legislators, government officials, and agribusiness and community organization representatives. The Council represents all of the major institutions and groups in Minnesota with an interest in agricultural education and serves as a focal point for initiatives to improve agricultural education in the state.*





*MAELC provides leadership to  
promote and expand agricultural  
education in Minnesota*