

Nebraska Department Of Education Mission

To lead and support the preparation of all Nebraskans for learning, earning, and living.



Nebraska Agricultural Education prepares students for successful careers and a lifetime of informed choices in the global agriculture, food, fiber and natural resources systems.

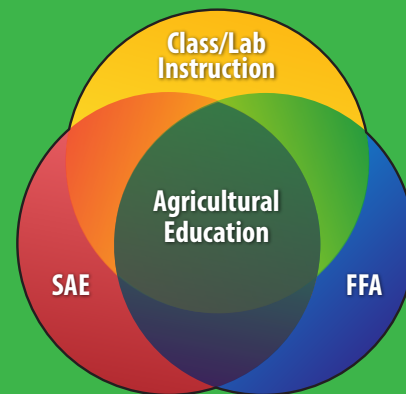
Knowing that the agricultural industry employs one of every three Nebraska residents, and that world population is forecasted to increase 9.7 billion people by 2050, students are motivated in this career field to make a difference in the world. Students are becoming equipped for this future demand through local classes/programs and during world-class district, state, and national educational experiences. The Agriculture, Food, and Natural Resources Career Field is comprised of seven Career Pathways (**see below**), all of which are essential to the economic development of Nebraska.

- Agribusiness
- Animal Science
- Diversified Agricultural Science
- Environmental and Natural Resources
- Food Products and Processing
- Plant Science
- Agricultural Power, Structure, and Technology

By serving students in 209 schools across Nebraska for the 2022-2023 school year, Agricultural Education provides these opportunities to over 15,000 young people each year.

THREE COMPONENTS OF NEBRASKA

Today's Agricultural Education carries on the tradition of providing instruction through an integrated model of classroom and laboratory instruction, leadership development through FFA, and experiential work-based learning through a student's individualized Supervised Agricultural Experience (SAE) program.



Classroom/Lab Instruction

A student's experience in agricultural education starts in the classroom with direct instruction from an Agricultural Education teacher. Students can expect classes to be based on career opportunities within Nebraska's leading industry. Often structured as 'hands-on' courses, today's agricultural classes prepare students for both career and college opportunities. Teachers work hard to ensure their students benefit from experiences that happen at the intersection of academics and real life application.

Most schools with an agricultural education program provide hands-on experiences for their students with mechanics laboratories, greenhouses, aquaculture/aquaponics labs, land plots, and animal laboratories. Agricultural Education programs engage the community through field trips, guest speakers, and involvement with civic organizations.

Certified teachers with an endorsement in Agricultural Education engage their students in courses based on the identified career pathways within Agriculture, Food, and Natural Resources Career Cluster.

Leadership Development (FFA)

Instruction in leadership has been a cornerstone of agricultural education for over 90 years. As mechanization of agricultural processes enabled other industries to be born, fewer Americans were involved with the production and processing of food. The Future Farmers of America organization was established in 1928 to provide a voice for those young people involved in production agriculture.

Today, the FFA has shed its acronym and is known as the National FFA Organization in response to the number of agricultural careers that are non-production in nature. FFA membership is at an all-time high with over 850,000 members nationally. Nebraska membership is over 11,000 and is the state's largest Career and Technical Student Organization.

Experiential Learning (SAE)

True learning also occurs outside of the classroom. When students apply knowledge and develop skills, they transfer their learning into experiences that can lead to a successful career. A student's Supervised Agricultural Experience (SAE) is a formal way to gain that experience under supervision of their Agricultural Education instructor. SAE programs allow students to take knowledge gained in the classroom and apply it in a real-life setting.

Student SAEs can consist of Placement/Internship, Entrepreneurship/Ownership, Research (Experimental, Analytical, or Invention), School Based Enterprises, Service Learning, or be of an exploratory nature. Students document their experiences through an electronic portfolio known as the SAE Record Book. They track their personal goals, skills attained, and financial records for their business and personal lives. Teacher-led instruction in the classroom and during SAE visits empower students to make solid decisions that help them grow and prepare for future careers.

CAREER CLUSTER: AGRICULTURE, FOOD, AND NATURAL RESOURCES

This diverse Career Cluster prepares learners for careers in the planning, implementation, production, management, processing and/or marketing of agricultural commodities and services, including food, fiber, wood products, natural resources, horticulture, and other plant and animal products. It also includes related professional, technical, and educational services.

PATHWAY DESCRIPTIONS

Agribusiness

Workers use technology to coordinate all activities that contribute to production, marketing, distribution, financing, and development of agricultural commodities.

Course offerings in Agribusiness Systems: Agricultural Business, Agricultural Sales, Agricultural, Communications, Agricultural Economics, Agribusiness Entrepreneurship.

Animal Science

Workers study genetics, nutrition, reproduction, growth, and development of food and companion animals. They inspect and grade livestock food products, purchase livestock, or work in sales and marketing.

Course offerings in Animal Systems: Animal Science, Small Animal Management, Large Animal Management, Veterinary Science, Agriculture Biotechnology.

Environmental & Natural Resources Systems

Workers are involved in pollution control, recycling, waste disposal, public health, natural resources, and wildlife management. They conduct hazardous-waste management studies, analysis, and research environmental projects. They help to develop, maintain, and manage natural resources such as forests and other natural environments.

Course offerings in Environmental and Natural Resources Systems: Environmental and Natural Resources, Wildlife Management, Environmental and Natural Resources Management.

Food Products & Processing

Workers discover new food sources, analyze and develop ways to process, preserve, package, or store food. They create new food products and inspect food processing to ensure sanitation, safety, quality, and waste management standards are met.

Course offerings in Food Products and Processing Systems: Food Science and Safety, Food Products and Technology.

Plant Science

Workers develop ways to improve the nutritional value and aesthetic to plants and quality of seeds. They use genetic engineering to develop pest and drought resistant plants helping producers while conserving natural resources and maintaining the environment.

Course offerings in Plant Science: Plant Science, Crop Management & Agronomy, Nursery Management, Landscape Design, Floriculture, Agriculture Biotechnology.

Agricultural Power, Structural & Technical Systems

Workers apply knowledge of engineering, hydraulics, pneumatics, electronics, power, structures, and controls to the field of agriculture. They develop conservation of soil and water to improve the processing of agricultural products.

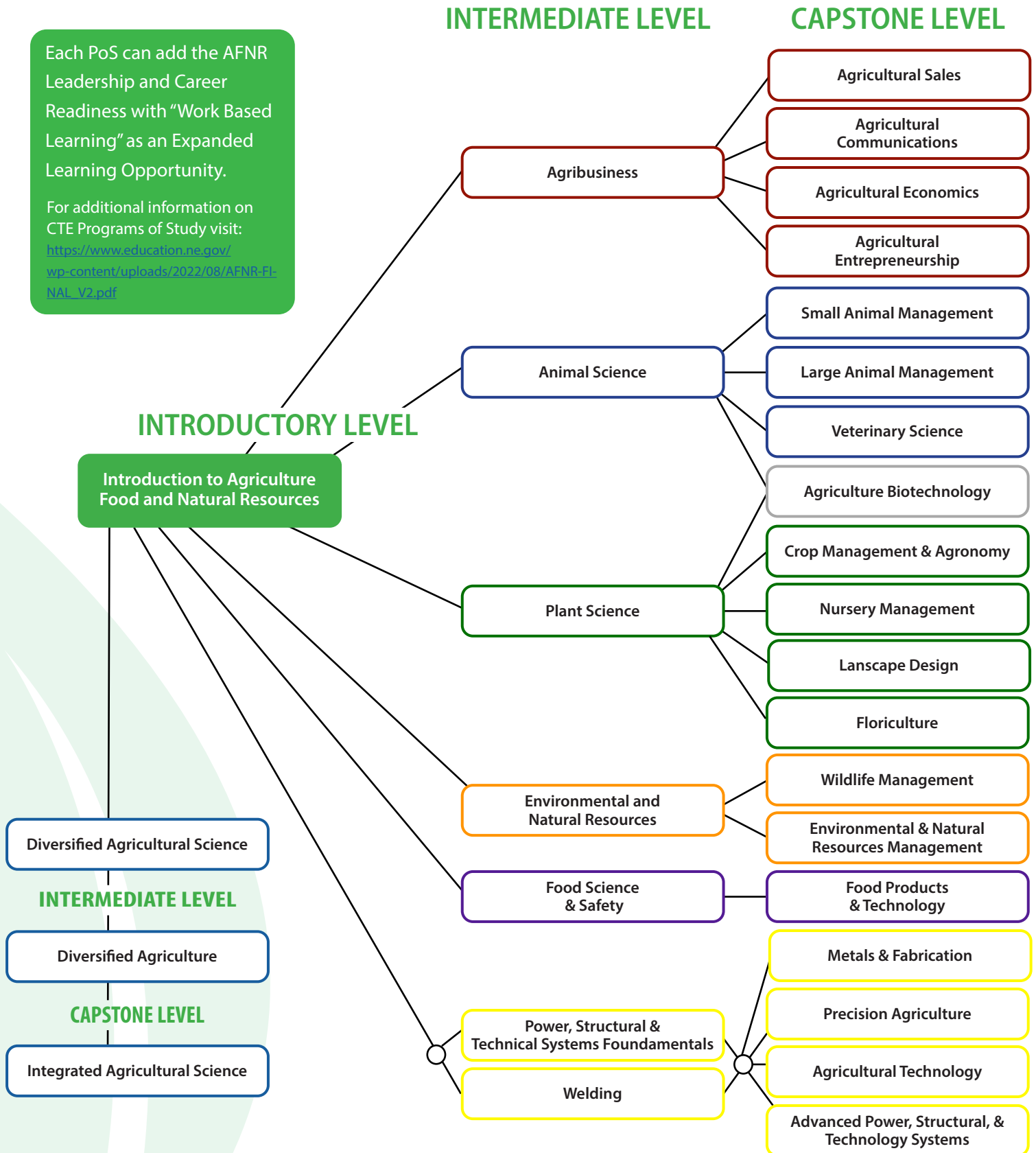
Course offerings in Agricultural Power, Structural & Technical Systems: Welding, PST Fundamentals, Metals and Fabrication, Precision Agriculture, Advanced PST Systems, Agricultural Technology.

2022–2023 NEBRASKA AGRICULTURE, FOOD, AND NATURAL RESOURCES

Program of Study & Course Standards Outline

Each PoS can add the AFNR Leadership and Career Readiness with “Work Based Learning” as an Expanded Learning Opportunity.

For additional information on CTE Programs of Study visit: https://www.education.ne.gov/wp-content/uploads/2022/08/AFNR-FINAL_V2.pdf



NEBRASKA AGRICULTURE, FOOD, AND NATURAL RESOURCES

Additional Program Of Study Information

CASE

Curriculum for Agricultural Science Education

CASE is a national curriculum that is STEM-based with an emphasis on laboratory and hands-on experiences for students. Teachers are certified by attending a CASE Institute and completing 80 hours of intense training for each course. Nebraska has hosted CASE trainings, but agricultural educators can attend a CASE Institute anywhere in the United States to become certified. CASE courses count towards Nebraska's Program of Study.

Learn more at: <https://www.case4learning.org>

Teachers can become certified in the following CASE areas:

- Introduction to Agriculture, Food and Natural Resources (**AFNR**)
- Principles of Agricultural Science – Animal (**ASA**)
- Principles of Agricultural Science – Plant (**ASP**)
- Agricultural Power and Technology (**APT**)
- Natural Resources and Ecology (**NRE**)
- Animal and Plant Biotechnology (**APB**)
- Food Science and Safety (**FSS**)
- Mechanical Systems in Agriculture (**MSA**)
- Environmental Science Issues (**ESI**)
- Agricultural Research and Development (**ARD**)
- Agricultural Business Foundations (**ABF**)
- Technical Applications in Agriculture (**TAA**)
- AgXPlore Middle School (**AgX**)

AGRICULTURE, FOOD, AND NATURAL RESOURCES MIDDLE SCHOOL COURSES

Many agricultural education programs offer classes to middle school students.

The following are AFNR Middle School Courses:

- Middle School Intro to Agriculture Food and Natural Resources
 - Careers and Literacy of Agriculture
 - CASE AgXPlore Middle School

For more information, contact Nebraska State Agricultural Education Staff.

POSTSECONDARY OPTIONS: AGRICULTURE, FOOD, AND NATURAL RESOURCES

Students preparing for a career in the Agriculture, Food, and Natural Resources career field have a variety of postsecondary options. Education and training can be obtained through on-the-job training, technical colleges, two-year community colleges, four-year colleges/universities, and apprenticeship programs. They can enter programs leading to a certificate or a degree at the associate, baccalaureate, or advanced degree level. The table below shows examples of postsecondary Agriculture, Food, and Natural Resources programs of study organized by pathway.

	High School Diploma On-the-Job Training	Certificate/License	Associate's Degree	Bachelor's Degree	Master's/Doctoral Professional Degree
Agribusiness	Farm and Ranch Workers	Agriculture Contact Provider	Agribusiness Management Agribusiness Operations Technology Agriculture Agri-Communications Farm and Ranch Business Management	Agricultural Economics Agribusiness Agricultural Education Agricultural Journalism Hospitality Restaurant and Tourism Management Professional Golf Management	Agricultural Economics Leadership Education Statistics
Animal Science	Animal Caretakers Feed Sales	Ag Dairy Technician Beef Quality Assurance Program Livestock Production Pork Quality Assurance Program	Animal Science Equine Industry Management Livestock Industry Management Swine Management Veterinary Technology	Animal Science Biochemistry Grazing Livestock Systems Veterinary Science Veterinary Technologist	Animal Science (Nutrition, Genetics, or Physiology Focus) Biochemistry Integrative Biomedical Sciences Veterinary Medicine
Environmental and Natural Resources	Refuse and Recyclable Material Collection		Environmental Science Laboratory Science Technology Natural Resources Systems Soil and Water Conservation Wildlife Management	Aquatic Ecology Conservation Biology Environmental Soil Sciences Environmental Studies Fisheries and Wildlife Grassland Ecology/Management Habitat Management Insect Science Natural Resources and Environmental Economics Water Science	Entomology Horticulture and Forestry Natural Resource Sciences
Food Products & Processing	Butchers and Meat Cutters Meat Processing Slaughter and Meat Packer	Agriculture Dairy Technician Commercial Plant Production Food Handlers Permit Quality Control	Agronomy Diversified Agriculture Dietary Management Food Science and Technology Quality Control	Agronomy Animal Science Food Science and Technology Hospitality, Restaurant and Tourism Management Mechanized Systems Management	Agronomy Animal Science (Meat Science Focus) Food Science and Technology Nutrition
Plant Science	Nursery and Greenhouse Workers Seed Sales Tree Trimmers and Pruners	Commercial Horticulture	Agronomy Commercial Horticulture Crop Production Forestry Landscape/Nursery Sport Turf Technology	Agronomy Biochemistry Diversified Agriculture Studies Grazing Livestock Systems Horticulture Insect Science Plant Protection Sciences	Agriculture Agronomy Biochemistry Entomology Horticulture Horticulture and Forestry
Agricultural Power, Structural & Technical	Electrician Apprenticeship Plumbing Apprenticeship Welding Apprenticeship	Parts Distribution and Management Parts/Sales and Management	Agri-Technology Farm Mechanics Irrigation Technology John Deere Ag Technician Mechanized Agriculture	Agricultural Operations Mechanized Marketing Mechanized Science Mechanized Systems Management Processing Operations	Agricultural and Biological Systems Engineering Mechanized Systems Management
Diversified Agricultural Science	Farm and Ranch Workers	Agriculture Contact Provider Farm, Ranch, and Horticulture Technician Diversified Production Operations Agricultural Sales	Agribusiness Management Agribusiness Operation Farm, Ranch and Horticulture Operations and Technical Assistant Operations Management	Agribusiness Agricultural Communications Operations Management Farm, Ranch and Horticulture Production Sales and Marketing	Agricultural Communications Leadership Education Agribusiness Management

CAREER BASED AWARDS AND RECOGNITION OPPORTUNITIES AVAILABLE TO FFA MEMBERS

Leadership Development Events (LDEs)	Career Development Events (CDEs)	Supervised Agricultural Experience (SAE) and Application-Based Events
<p>High School Events</p> <ul style="list-style-type: none"> • Agricultural Demonstration • Cooperative Speaking • Creed Speaking • Extemporaneous Speaking • Employment Skills • Conduct of Chapter Meetings • Parliamentary Procedure • Natural Resources Speaking • Jr. Public Speaking • Sr. Public Speaking <p>Middle School Events</p> <ul style="list-style-type: none"> • Ag Literacy Speaking • Creed Speaking • Conduct of Chapter Meetings • Discovery Speaking • People in Ag Poster Event • Quiz Bowl 	<ul style="list-style-type: none"> • Agriculture Biotechnology • Agricultural Communications • Agricultural Issues Forum • Agricultural Sales • Agricultural Techology & Mechanics • Agriscience • Agronomy • Dairy Cattle Evaluation & Management • Dairy Cattle Handlers Activity • Environmental & Natural Resources • Farm and Agribusiness Management • Floriculture • Food Science and Technology • Horse Evaluation • Livestock Management • Livestock Selection • Marketing Plan • Meat Evaluation and Technology • Milk Quality & Products • Nursery/Landscape • Poultry Evaluation • Range Evaluation • Veterinary Science • Welding 	<ul style="list-style-type: none"> • Agriscience Fair • American FFA Degree • Chapter FFA Degree • Discovery FFA Degree • Greenhand FFA Degree • Proficiency Award Competition (based on your SAE Program) • Star Award Competition (based on your SAE Program) • State FFA Degree <p>Other Opportunities</p> <ul style="list-style-type: none"> • EDGE Leadership Conference • Land Evaluation • Local Chapter Grant • National Band, Chorus, and Talent • National Chapter Award Program • National Convention • Nebraska FFA Foundation Jacket Scholarship • Nebraska FFA Launch! Program (School Based Enterprise) • Over \$2.3 Million in National Scholarships • Pathway to Careers Conference • Spring Leadership Conference • State Chorus and Talent • State Convention • Washington Leadership Conference

For more information visit the following websites:

www.neaged.org

<https://alec.unl.edu/agedcde>

www.ffa.org

Numerous chapter-level award areas and individual non-FFA opportunities exist. Visit www.neaged.org for additional opportunities and to learn more!

NEBRASKA AGRICULTURAL EDUCATION & FFA CALENDAR

Approximate Planning Dates

AUGUST

- Beginning of school year; start to the Agricultural Education & FFA calendar year
- FFA State Fair Weekend, Grand Island

SEPTEMBER

- "Chapters in Good Standing" items due, including FFA membership
- Potential EDGE Leadership Conferences (location varies)
- Potential Land Evaluation Events and Range Evaluation Events

OCTOBER

- National FFA Convention
- Potential District Livestock Evaluation Events

NOVEMBER

- FFA Pathway to Careers Conference
- Ag Ed Symposium (Fall Teacher Inservice)

DECEMBER/JANUARY/FEBRUARY

- Potential Leadership Development Events
- Potential State Degree Evaluation
- Potential Proficiency Award Evaluation
- Potential Chapter Visit by a State FFA Officer

FEBRUARY

- Spring Leadership Conferences
- Potential Career Development Events
- Potential Chapter Visit by a State FFA Officer

MARCH

- Numerous State Convention Deadlines including registration
- Potential Career Development Events
- Potential Chapter Visit by a State FFA Officer

APRIL

- State FFA Convention
- Potential Chapter Banquet

MAY

- Chapter Officer Leadership Training (COLT) Conference, Aurora

JUNE

- Nebraska Career Education (NCE) Conference, Kearney
- Professional Development opportunities for teachers

JULY

- Professional Development opportunities for teachers
- NDE CTE Beginning Teacher Institute and Jump Start Conference

NEBRASKA FFA CHAPTERS BY DISTRICT

Nebraska Agricultural Education Programs and FFA Chapters are organized into 12 districts. The schools in these districts work together to provide competitions and leadership experiences for their students.

District 1

Auburn
Conestoga
Falls City
Freeman
HTRS (Humboldt)
Johnson-Brock
Johnson County Central
Lewiston Consolidated
Nebraska City
Norris
Palmyra
Pawnee City
Plattsmouth
Southern (Wymore)
Sterling
Syracuse-Dunbar-Avoca
The Career Academy
Weeping Water

District 2

Ashland-Greenwood
Bishop Neumann
Central
Clarkson
Cross County
David City
East Butler
Howells-Dodge Cons.
Humphrey
Lakeview
Leigh
Newmn Grove
Osceola
Schuyler Central
Shelby-Rising City
Waverly

District 3

Arlington
Bancroft-Rosalie
Blair
Logan View
Lyons-Decatur N.E.
Mead
North Bend
Oakland-Craig
Omaha Bryan
Pender
Ralston
Scribner-Snyder
Tekamah-Herman
Wayne
West Point
Winside
Wisner-Pilger

District 4

Allen
Battle Creek
Bloomfield
Creighton
Crofton
Emerson-Hubbard
Hartington Newcastle
Laurel-Concord-Coleridge
Lutheran High Northeast
Madison
Norfolk
Osmond
Pierce
Plainview
Randolph
Stanton
Summerland
Verdigre

District 5

Bruning-Davenport
Centennial
Crete
Deshler
Diller-Odell
EMF
Fairbury
Fillmore Central
McCool Junction
Meridian
Milford
Seward
Thayer Central
Tri County
Wilber-Clatonia
York

District 6

Adams Central
Alma
Axtell
Blue Hill
Elm Creek
Franklin
Hastings St.Cecilia
Holdrege
Kearney
Kenesaw
Lawrence-Nelson
Minden
Red Cloud
Sandy Creek
Shickley
Silver Lake
Superior
Sutton
Wilcox-Hildreth

District 7

Aurora
Boone Central
Central City
Doniphan-Trumbull
Fullerton
Hampton
Heartland
High Plains
Northwest
Palmer
Riverside
Spalding Academy
St. Edward
St. Paul
Twin River

District 8

Amherst
Anselmo-Merna
Ansley
Arcadia
Broken Bow
Callaway
Central Valley
Centura
Elba
Litchfield
Loup City
Overton
Pleasanton
Ravenna
Shelton
Sumner-Eddyville-Miller
Wood River

District 9

Arthur County
Cody-Kilgore
Gothenburg
Hershey
Hyannis
Maxwell
McPherson County
Mullen
North Platte
Ogallala
Paxton
Perkins County
Sandhills
South Platte
Stapleton
Sutherland
Thedford
Valentine
Wallace

District 10

Ainsworth
Boyd County
Burwell
Chambers
Elgin
Elkhorn Valley
Keya Paha
Loup County
Nebraska Ag Academy
Neligh-Oakdale
O'Neill
Ord
Rock County
Sargent
Stuart
West Holt
Wheeler Central

District 11

Arapahoe/Holbrook
Bertrand-Loomis (BerMis)
Cambridge
Cozad
Dundy County-Stratton
Elwood
Eustis-Farnam
Hayes Center
Hitchcock County
Imperial
Lexington
Maywood
McCook
Medicine Valley
Southern Valley
Southwest
Wauneta-Palisade

District 12

Alliance
Banner County
Bayard
Bridgeport
Chadron
Crawford
Creek Valley
Garden County
Gering
Gordon-Rushville
Hay Springs
Hemingford
Kimball
Leyton
Minatare
Morrell-Mitchell
Potter-Dix
Scottsbluff
Sidney
Sioux County



Learning that works
for Nebraska



[Non-Discrimination and
Guidance Statements.](#)

NEBRASKA STATE AGRICULTURAL EDUCATION STAFF

Stacie Turnbull

AFNR Career Field Specialist and State Director of
Agricultural Education
(402) 310-8344

stacie.turnbull@nebraska.gov

Sarah Heideman

AFNR Career Field Specialist and State FFA Advisor
(402) 432-2868

sarah.heideman@nebraska.gov

Donnie Wolters

State FFA Leadership Program Manager
(402) 525-5434

donniewolters@gmail.com