# Nebraska Agricultural Education & FFA Career Handbook



# What is agricultural education?



Agricultural education is a school-based program that prepares you for careers in agriculture, food and natural resources.

The three components of agricultural education tell our story.



#### INSTRUCTION

The lead circle and base foundation in the agricultural education system is formal classroom and laboratory instruction in over 30 available courses.

Agriculture teachers work hard to make these classes experience based and relevant to careers in the agriculture industry.



#### SUPERVISED AGRICULTURAL EXPERIENCE

Agricultural education students are guided in developing a Supervised Agricultural Experience (SAE) to develop skills and gain knowledge of the agriculture industry.

Student SAEs include research projects, job shadowing experiences, jobs held or businesses started by students. All SAEs relate directly to agriculture.



#### **FFA**

FFA is the organization for students enrolled in agricultural education and seeks to benefit students by developing their potential for premier leadership, personal growth and career success through agricultural education.

FFA allows students to compete, participate, and receive recognition in agricultural career skills development and leadership programs.



# What happens in the classroom?

Agricultural education instruction is taught by a certified agriculture teacher who holds a degree in agricultural education from a college or university. They are dedicated to professional development and staying up-to-date on the rapidly changing global agriculture industry.

You will learn about the Agriculture, Food and Natural Resources career pathways in your introductory course. You'll then continue on to intermediate and capstone level courses, building upon what you learned the previous year. The pathways provide a guide for you to follow what interests you most! Your agriculture teacher will also integrate FFA and Supervised Agricultural Experience concepts and principles into your classes.

## **COURSE OPTIONS AND PROGRAMS OF STUDY**

Introduction to Agriculture, Food & Natural Resources

(introductory course taken by all agricultural education students)

• intermediate course + capstone course

# ANIMAL SYSTEMS PATHWAY

- · Animal Science
- + Large Animal Management
- + Small Animal Management
- + Veterinary Science
- + Biotechnology

# POWER, STRUCTURE & TECHNICAL SYSTEMS PATHWAY

- Power, Structure & Technical Systems Fundamentals
- Welding
- + Power, Structural & Technology Systems
- + Precision Agriculture and Engineering
- + Metals & Fabrication

# ENVIRONMENTAL & NATURAL RESOURCES SYSTEMS PATHWAY

- Environmental & Natural Resources
- + Environmental & Natural Resources Management
- + Wildlife

# FOOD PRODUCTS & PROCESSING SYSTEMS PATHWAY

- Food Science & Safety
- FNS Food Production, Nutrition & Health
- + Food Products and Technology
- + FNS Food Science
- + FNS Nutrition Science

# AGRIBUSINESS SYSTEMS PATHWAY

- Agribusiness
- + Agricultural Economics
- + Agricultural Management & Entrepreneurship
- + Agricultural Sales & Communications

#### PLANT SYSTEMS PATHWAY

- Plant Science
- + Crop Management/Agronomy
- + Nursery & Landscape
- + Floriculture
- + Agriculture Biotechnology

# DIVERSIFIED AGRICULTURE SYSTEMS PATHWAY

- · Animal Science
- · Plant Science
- Agribusiness
- · Food Science and Safety
- Food Production, Nutrition and Health
- Environmental and Natural
- Welding
- Power, Structural & Technical Foundations

# Where can your program of study lead you?

#### AGRIBUSINESS SYSTEMS

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



## Career Ideas

Agricultural Loan Officer • Agribusiness Manager • International Ag Marketing Specialist • Marketing Communications Manager • Financial Manager

#### ANIMAL SYSTEMS

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 or marketing.



### Career Ideas

Geneticist • Nutritionist • Physiologist • Biomaterials Engineering • Farm and Ranch Managers

#### DIVERSIFIED AGRICULTURE SYSTEMS

Workers in diversified agriculture can study all programs of study to develop skills to work with plants, animals, food, environment, natural resources and power, structural and technical areas.



#### Career Ideas

Farmer • Rancher • Sales Representative • Farm and Ranch Managers • Entrepreneur • Machinery Operator



# ENVIRONMENTAL AND NATURAL RESOURCES SYSTEMS

Workers are involved in pollution control, recycling, waste disposal and public health. They conduct hazardous waste management studies and analyze environmental research projects.

### Career Ideas

Environmental Engineer • Hazardous Materials Handler • Health and Safety Sanitarian • Toxicologist • Conservation Officer • Water Quality Manager • Forestry Scientist • Fisheries Scientist • Wildlife Manager



#### FOOD PRODUCTS AND PROCESSING SYSTEMS

Workers discover food sources and develop ways to process, preserve, package or store food. They create new food products and inspect food processing to ensure food safety.

#### Career Ideas

Biochemist • Food Broker or Engineer • Food Science Technician • Quality Assurance Specialist



#### POWER, STRUCTURAL AND TECHNICAL SYSTEMS

Workers apply knowledge of engineering, power hydraulics, pneumatics, electronics, structures and controls to agriculture, and develop ways to improve the processing of agricultural products.

### Career Ideas

Agricultural Engineer • Diesel Mechanic • Welder Farm Equipment Mechanic • Global Positioning Technician



## PLANT SYSTEMS

Workers develop ways to improve the nutritional and aesthetic value of plants and quality of seeds.

## Career Ideas

Agronomist • Entomologist • Plant Scientist • Golf Course Superintendent • Landscape Architect

# Why are careers in agriculture so important?

Our population is growing like never before. There are 7 billion mouths to feed and our population is expected to grow to 9 billion people by 2050. Jobs and careers in all sectors of agriculture will be vital to keeping up with the global demand for agricultural and food production.

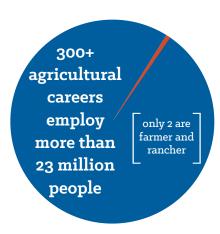
To feed everyone, we'll need to produce as much food in the next 50 years as we have produced the last 10,000 years.

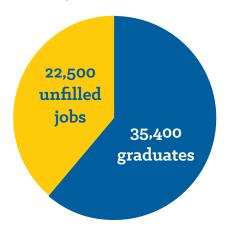
PAST 10,000 YEARS

=

NEXT 50 YEARS

In the U.S., one part of this challenge is finding enough workers to fill more than 20 million agricultural jobs.





AMERICAN AGRICULTURE IS COMPOSED
OF MORE THAN 300 CAREERS RELATED TO
THE PRODUCTION OF FOOD.
OF THESE, ONLY TWO ARE "FARMER AND
RANCHER".

OUT OF 57,900 AVERAGE JOB OPENINGS
PER YEAR FOR AGRICULTURALLY-BASED
4-YEAR COLLEGE GRADUATES, ONLY 35,400
GRADUATES ARE EXPECTED, RESULTING
IN A 39% GAP IN THE LABOR SUPPLY.

# What do former FFA members have to say?

As a former Waverly FFA member, Lori Luebbe credits chapter officer leadership training (COLT), leadership workshops and state convention to her interest in the agribusiness field.

Lori is now the Executive Director for the Nebraska Soybean Association. She said FFA is still important to her because she sees the future leaders in FFA members that will one day serve as community and industry leaders.

There are 300 jobs in agriculture, and FFA helps to provide opportunities to try out new skills. One skill that Lori learned while in FFA was parliamentary procedure. This is a skill she uses today to run efficient meetings.

"One word of advice I have for current FFA members is to take advantage of every opportunity FFA offers, grow your interest in all areas of agriculture and try something new. The opportunities in agriculture are endless," she said.



**MATT PORTER** 

Matt Porter's supervised agricultural experience (SAE) is part of the reason he wanted to have a career in production agriculture. His SAE included owning and managing 100 purebread black simmental cattle, which have now been sold for him to purchase land to farm. He is a Territory Manager for Mycogen.

A key skill he learned in FFA was teamwork. This has helped him work with dealers and growers that he interacts with on a daily basis.

The advice he has for current FFA members is to be involved. He said, "The more you put in to FFA, the more you will get out of it. Participating in as many contests as you can will help determine what you enjoy, what you would be good at and help point you towards a career you want to be in after you graduate college."

He added, "My grandparents, parents and FFA is what has made me the person I am today."

# What is a Supervised Agricultural Experience?



A Supervised Agricultural Experience (SAE) is an experience-based program in which you gain "real world" experiences and develop skills in agriculturally related career areas that interests you.

There are two key steps to getting started:

STEP 1. visit with your agriculture teacher about you career interests.

STEP 2. create a program that develops your skills in your areas of interest.

## SAEs are categorized as one of the following four types:

#### ENTREPRENEURSHIP:

An entrepreneur is someone who owns and operates a business. Many FFA members actually own agriculture-related businesses. You could become an entrepreneur by starting a landscaping business, raising crops or livestock, or providing a needed service in your community.

#### **EXPLORATORY:**

This area is great if you are a beginning agriculture student or are simply aren't sure about your career interest. You can job shadow, or research a specific career and produce a multimedia report on that topic.

# RESEARCH AND EXPERIMENTATION:

Students plan and conduct research using the scientific process. The topic is up to you. Past students have done research in food science, water science, fertilizer application and livestock feed.

#### PLACEMENT:

Students involved in a placement SAE work in an agriculture-related business, but do not own the business. If you work for an agricultural supply store, a farm or ranch, a veterinarian or a zoo, you fit in this category.





#### THE MISSION:

The National FFA Organization is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education.

#### THE MOTTO:

Learning to Do, Doing to Learn, Earning to Live, Living to Serve.

#### THE COLORS:

In 1929, at the second National FFA Convention, the delegates adopted National Blue and Corn Gold as the official colors of the FFA. This became the colors of one of the most recognizable symbols of FFA, the blue corduroy jacket.



#### THE EMBLEM:

The FFA Emblem was designed and adopted in 1933 as part of the official jacket. The emblem itself carries much meaning to those involved in agricultural education.



FFA was started in 1928 when 33 ag students gathered in Kansas City to solidify support for agricultural education. Nebraska was the sixth state to charter in 1928.

FFA has grown to over 650,000 members in 8,630 chapters in all 50 states, Puerto Rico and U.S. Virgin Islands.

# Statewide FFA Leadership Opportunities

FFA offers exciting opportunities to gain leadership and career skills while making new friends from around the state.
Leadership conferences combined with competitive activities take place throughout the year.



#### PATHWAYS TO CAREERS CONFERENCE

Each fall, Nebraska FFA members are invited to attend a high-energy conference with industry representatives. Students get the opportunity to engage with industry professionals from the seven agriculture, food and natural resource career pathways. Industry professionals lead hands-on, interactive workshops and develop relationships with future employees.

#### CHAPTER OFFICER LEADERSHIP TRAINING (COLT)

COLT is for FFA chapter officers to learn how to effectively serve their chapters. Conferences are held throughout May. The focus is on individual leadership skills as well as how to work as a chapter officer team. Officers engage in experience-based leadership activities, share and learn great ideas and create an action plan for their year of service.

#### FALL LEADERSHIP CONFERENCE

Fall Leadership Conference is a statewide leadership conference hosted at the district level for students just beginning their agricultural education experience. Participants get to know other new students and begin understanding what is possible in agricultural education and FFA.

#### 212/360

This conference prepares leaders to be advocated of the chapter for current and potential members, as well as community stakeholders. The two-day conference is held in Kearney in mid-February.

## FFA State Convention

In 2019, 100 percent of Nebraska FFA chapters attended state convention. This included 7,143 registered members, advisors and guests.

#### APRIL 1-3, 2020

Nebraska FFA State Convention is an event for Nebraska's FFA members, advisors, agriculture teachers, parents, sponsors, donors and guests to attend annually in Lincoln.

The convention is held at Pinnacle Bank Arena, hotels in Lincoln's Haymarket and University of Nebraska.

FFA members during state convention have the opportunity to attend leadership workshops, participate in competitive events, listen to motivational speakers and state officer retiring addresses, watch and receive awards, attend business tours, and attend the expo and career fair.



## FFA Competitive Events, Degrees and Awards

Can you think of another program where students can develop essential leadership, life and career skills, earn money and be recognized on local, district, state and national levels for these efforts? FFA has it!

#### FFA DEGREE PROGRAM

FFA members can earn degrees as they progress through the phases of their leadership, academic and career skills development. Each degree advancement has specific requirements that must be achieved.

There are five degree levels:

- 1. Discovery Degree
- 2. Greenhand Degree
- 3. Chapter FFA Degree
- 4. State FFA Degree
- 5. American FFA Degree



#### PROFICIENCY AWARDS

Agricultural proficiency awards honor FFA members who, through their SAEs, have developed specialized skills that they can apply toward their future careers. Students can compete for awards in areas covering everything from Agricultural Communications to Wildlife Management. For more information on these degrees, a full listing of Proficiency Award categories and Career Development Events, visit neaged.org.

#### CAREER DEVELOPMENT EVENTS

Nebraska Career Development Events (CDEs) help students develop abilities to think critically, communicate clearly and develop skills for a competitive job market. Some of the CDEs state-winning individuals and teams will move onto National Convention.



# FFA Competitive Events, Degrees and Awards

#### LEADERSHIP DEVELOPMENT EVENTS

Nebraska Leadership Development Events (LDEs) provide FFA members with experience in the practice of influencing thers through speaking and parliamentary procedure competitions. For some LDEs, the state-winning individual or team will represent Nebraska at National FFA Convention.



#### STATE AND AMERICAN STAR PROGRAM

The State and American Star awards represent the best of the best among thousands of State and American FFA Degree recipients. Finalists for the award have mastered skills in production, finance, management and/or research. State and American Star award areas include: Star in Production, Star in Agribusiness, Star in Agricultural Placement and Star in Agriscience.



# FFA Program of Activities

All well-run organizations have a plan for activities. FFA chapters develop a Program of Activities (POA) as a way to set goals for the chapter and outline the steps needed to meet those goals.

A well-planned POA will ensure chapter activities meet the needs of its members, provide direction from year to year, lead to a workable budget, provide experience in planning and serve as a reference point throughout the year. A POA also helps chapters communicate their goals with administrators, parents, advisory committees and their community.

By engaging in the development and delivery of a quality POA, students develop leadership and planning skills which are essential in all careers.

Chapters can earn national recognition for their POA. Each year, there are 10 chapters identified as a National FFA Premier Chapter in each of the three focus areas.

In addition, another 10 high school chapters will also be chosen as National FFA Models of Excellence award winners. These chapters exhibit excellence in all three categories of the Program of Activities. This award program recognizes chapters who successfully complete an annual Program of Activities designed to encourage members to work as part of a team, to serve others and to grow as individuals.

## THE CHAPTER POA HAS THREE FOCUS AREAS:

**Building Communities** 

**Strengthening Agriculture** 

**Growing Leaders** 







# CHAPTER SPOTLIGHT: OVERTON FFA

"The Nebraska FFA Foundation has played a huge part in the success of getting our new chapter started at Overton. Last year they sent our entire officer team to COLT which helped us kick start our chapter and gave each of the officers expectations for the year. It was a great event that helped us plan our year and set goals! We are also fortunate enough to have had the Foundation support our students by providing almost 75 percent of our members with their FFA jacket. We can't wait to get them ordered and receive the very first set of Overton FFA jackets."

- April Williams, agriculture teacher





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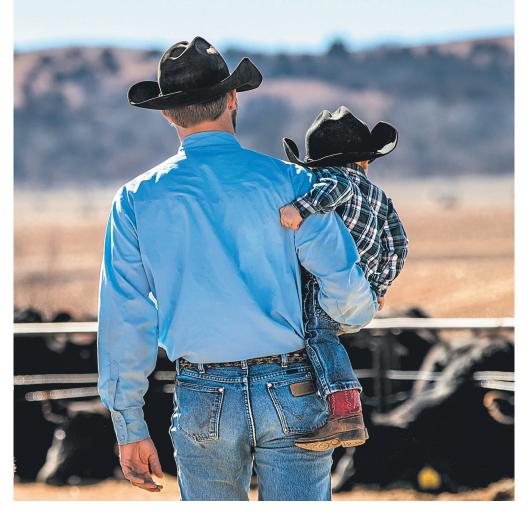
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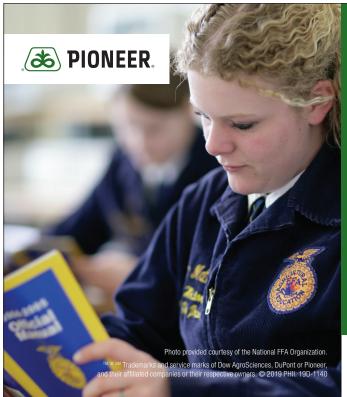
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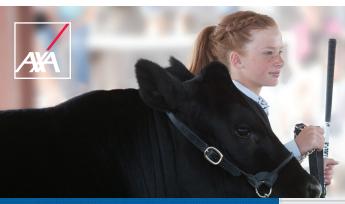
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