



## AGRONOMY PROJECT AREA



*Get your hands dirty in agronomy! Find out how soils, bugs, beetles, and more affect your crops. Whether it's corn, soybeans, wheat, hay, or silage, 4-H agronomy helps you learn what makes plants grow.*

### Ideas for Project Area Learning

- Learn how soil, seeds, weather, pests, and fertilizer affect field crops.
- Learn the value and uses of field crops.
- Learn how new technology can change the way field crops are grown.
- Keep records of crop production.
- Plant something and watch it grow.
- Find differences when you plant seeds in different soils.
- Use different fertilizers and control weeds and pests.
- Identify what helps plants grow and what's harmful to them.
- Take a soil sample.
- Calculate growing degree days.
- Scout fields for growing conditions.
- Discover products that are made from field crops.
- Learn how to protect your plants from pests.
- Decide what varieties of crops to plant and at what time.
- Learn soil and nutrient requirements.
- Manage your crops based on integrated crop management principles.
- Explore career opportunities related to crop production.
- Calculate harvest losses and their causes.
- Calculate expenses and incomes to determine the profitability of field crops.
- Identify how new technology impacts crop production.

### APPLY WHAT YOU'VE LEARNED

#### Communication

- Show your group the difference between a healthy plant and a sick one.
- Do a presentation on sampling soil.
- Develop a journal with the details of the fields you scout.

#### Civic Engagement

- Help teach others about farm safety.
- Join and participate in a farm commodity association.
- Organize and lead an appreciation event for farmers during harvest.

#### Leadership

- Create farm safety rules for your family and share with others.
- Plan a tour of a seed corn plant for your group.
- Develop a harvest loss frame and use it to help other farmers calculate their harvest losses.

#### Entrepreneurship

- Start a niche online gift shop for farmers and their families.
- Grow herbs, sweet corn, or vegetables to sell at a local farmer's market.
- Create planting or harvest care packages people can buy for their farming friends or neighbors.



Exhibit resources, related events, and record keeping forms are available on our website.

[www.extension.iastate.edu/4h/projects/cropproduction](http://www.extension.iastate.edu/4h/projects/cropproduction)

## Goal Setting and Record Keeping

Goal setting is an ongoing process that guides your project area learning. Having goals is like having a road map to show you how to get you to where you want to go. Record keeping is also an ongoing process and another important life skill. In 4-H, you are encouraged to select from a variety of record keeping formats to meet your own personal needs and your preferred learning style. Keeping records of your learning experiences helps you determine how well you met your goals. Goal setting and record keeping improve your skills in organization, communication, planning, and evaluating.

## Iowa 4-H Event Opportunities

- Participate in **county and state fair** exhibit classes.
- Check with your local county 4-H youth development staff to see if there are special events or **workshops in your county** that you want to attend to learn more about your project areas.
- Iowa 4-H members in grades 9–12 can apply for **State Project Area Awards** at State Recognition Day. Applications are open December through January.
- Meet young people from around the state who have completed grades 8–12, and share your interests at the **Iowa 4-H Youth Conference** held at Iowa State University in late June.
- Each March, hundreds of student researchers in grades 6–12 meet with professionals to discuss their findings and compete for scholarships during the **State Science and Technology Fair of Iowa**.
- Iowa 4-H partners with Iowa State University Integrated Pest Management to host an annual **Crop Scouting Competition** for youth in grades 8–12.

## Share Your Learning With an Exhibit

- Create a booklet of all the uses of corn and soybeans.
- Make a poster with a diagram of cut-off corn stalks and show the growing point.
- Keep a journal of your plans, recording rainfall and other weather data.
- Produce a video about the role of legumes in fixing nitrogen in the soil.
- Create a display showing potential safety hazards on a farm. Educate others on ways to prevent them.
- Design a poster to teach others about the information provided on seed labels.
- Develop a field map showing the locations you checked for stand counts.

### CAREER CONNECTIONS

- **Farmers** make decisions about how to get the most yield with the fewest inputs.
- **Agronomists, extension specialists and crop consultants** are professionals who help farmers make decisions about how to best manage their crops.
- **Plant breeders** create new types of crops using both traditional and modern technology.
- Seed companies need employees to make, promote, and sell seed to farmers. Jobs might include **marketing, sales, seed quality testing, and growing seed**.

### EDUCATION CONNECTIONS

- **Agronomy** is the major at most colleges that focuses on crop production and crop science. This is a good major if you are interested in a career in science, production agriculture, or consulting with farmers.
- If you are interested in doing scientific research that improves crop production, study **entomology** (insect pests), **plant pathology** (plant diseases), **soil science**, or **genetics**.
- Students in **agricultural business** learn about marketing agricultural commodities, managing a farm, and selling agricultural products.

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