



Plant Science  
**4-H Crop Production**  
 North Dakota 4-H Project Sheet

Get your hands dirty in crop production! Find out how soils, diseases, beetles and more affect your crops. Whether it's corn, soybeans, wheat, hay or silage, 4-H crop production is for you!



- 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.

## Here's what you can do all year!

Starting Out Basic/Level 1	Learning More Intermediate/Level 2	Expanding Horizons Advanced/Level 3
<ul style="list-style-type: none"> <li>• Plant something and watch it grow.</li> <li>• Find differences when you plant seeds in different soils, use different fertilizers, and control weeds and pests.</li> <li>• Identify what helps plants grow and what's harmful to them.</li> </ul>	<ul style="list-style-type: none"> <li>• Take a soil sample.</li> <li>• Calculate growing degree days.</li> <li>• Scout fields for growing conditions.</li> <li>• Discover products that are made from field crops.</li> <li>• Learn about methods for protecting your plants from pests.</li> <li>• Decide what varieties of crops to plant and at what time.</li> <li>• Learn soil and nutrient requirements.</li> </ul>	<ul style="list-style-type: none"> <li>• Manage your own crops based on integrated crop management principles.</li> <li>• Explore career opportunities related to crop production.</li> <li>• Calculate harvest losses and their causes.</li> <li>• Calculate expenses and incomes to determine the profitability of field crops.</li> <li>• Identify how new technology impacts crop production.</li> </ul>

**Pass it on!**

Now that you know how, share it with others. Here are ideas to get you started.

### Communication

- Show your club the difference between a healthy plant and a sick one, and tell how that happens.
- Do a presentation on sampling soil.
- Develop a journal with the details of the fields you scout.

### Citizenship

- 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 farmers calculate their harvest losses.



Learn more at [www.ndsu.edu/4h/](http://www.ndsu.edu/4h/) or contact your county NDSU Extension office.



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# 4-H Crop Production

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### Here are other opportunities to explore the crop production project:

- Attend adult pesticide applicator training workshops through your local NDSU Extension office.
- Organize a fundraiser that plants and markets a crop, donating proceeds to a worthy cause.
- Participate in a [4-H crop judging contest](#).
- Consider taking an exhibit or piece of your project learning to the fair for judging to show what you have learned throughout the year. It might get selected to go to the North Dakota State Fair.
- Contact your county NDSU Extension office for other local workshops, activities and events.
- Interested in a college education in the area of crop production? Schedule a visit with NDSU's College of Agriculture, Food Systems, and Natural Resources at [www.ndsu.edu](http://www.ndsu.edu) to explore majors.



### Exhibit Ideas

- 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 plants, recording rainfall and other weather data, fertilizer and pesticide application, hybrid variety selection and other factors that influence the growth and development of your crop.
- 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 these hazards.
- 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 and explain possible reasons for differences.
- Create a photo journal of actual crop fields with or without a lot of weed competition.
- Give an educational presentation on resources that are available to help in conservation planning.
- Create a display or educational presentation comparing the financial risk associated with different types of financial agreements.

### 4-H Resources

- [Preparing Crop Sheaves for Exhibit \(GCA091\)](#)
- [ND Crop Seed Identification Guide \(GCA671\)](#)
- [Identifying Weeds and Their Seeds \(GCA672\)](#)
- [Range Judging Handbook for North Dakota \(DDB628\)](#)
- [Land Judging in North Dakota \(DBC618\)](#)

### Other Resources

- [ND Wheat Commission](#)
- [United Soybean Board](#)
- [ND Soybean Council](#)
- [National Corn Growers](#)
- [ND Corn Growers](#)
- [USDA Web Soil Survey](#)

### Recordkeeping

- [Crop Production Worksheet \(GCA095\)](#)
- [4-H Project Plan \(PA095\)](#)
- [Planning for my Project Adventure \(PA093\) \(Ages 8-10\)](#)
- [4-H Plan of Action \(PA096\) \(Ages 11-18\)](#)

### Contests

- [Crop Judging Contest](#)
- [Land Judging Contest](#)
- [Range Judging Contest](#)

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Updated 10-2019