



# Plant Science Project



Do you enjoy playing in the dirt? Then the Kansas 4-H Plant Science project is for you. Learn how to grow fruits, vegetables, flowers, crops, and trees.

There are three areas that you can explore in the Plant Science project: Horticulture, including vegetable and flower gardening, Field Crops, and Forestry. The Plant Science project has something for everyone.

## Starting Out *Beginner*

- Understand when, where, and how to plant.
- Learn the differences between cool and warm-season plants.
- Identify plant parts and learn how they are used.
- Learn how to use and care for basic garden tools.
- Grow and harvest crops.
- Identify tree species.

## Learning More *Intermediate*

- Compare seed varieties.
- Learn how to start seeds indoors for transplanting.
- Compare preventative pest control methods.
- Learn about selling your harvest.
- Investigate how to grow a new variety.
- Learn to grow plants from plant parts: leaf, etc.
- Identify internal tree parts.

## Expanding Horizons *Advanced*

- Analyze plant pollination methods.
- Learn ways to preserve foods.
- Study food industry and plant science careers.
- Learn the effects of biotechnology.
- Evaluate forest conservation techniques.
- Learn how to care for trees.

## Inspire Kids to Do

### Explore

#### **"I might like to do this."**

Youth who explore a variety of interests before high school, through experiences like 4-H camps and educational events, can develop early interest in a career path and improve their academic performance.

### Learn

#### **"I can do this."**

4-H project-based learning, guided by adult volunteers, improves youth understanding of skills and concepts, as well as their ability to problem-solve and collaborate.

### Practice

#### **"I'm interested in this."**

Youth who have participated in sustained hands-on learning and engaged with professional mentors and volunteers before entering high school are more likely to explore studies and potential career paths.

### Experience

#### **"I will be this."**

Real-world application is key — 91% of Kansas 4-H members have a plan for reaching their goals. Youth that have been active participants in hands-on learning, combined with strong decision-making skills, are more able to effectively navigate life.

## Plant Science Project

### Expand Your Experiences!

#### Healthy Living

- Discover health benefits of plants and trees.
- Volunteer at a community garden.

#### Science and Agriculture

- Graft a bud onto a living tree.
- Experiment with soil tests.
- Research the many uses for crops that you grow.
- Plant a wheat variety test plot.

#### Community Vitality

- Visit your local farmers market or sell your extra produce at the farmers market.
- Donate extra produce to your local food banks or shelters.
- Adopt a flower bed at a park.

#### Communication and the Arts

- Give a talk or demonstration on garden tools, soil tests, how to start seeds, etc.
- Teach your club how to identify common garden weeds.
- Make a video or start a gardening blog.
- Create a leaf rubbing and teach others how to do it.

## Career Development

Horticulturist – Grow plants in a variety of situations including vegetable farms, orchards, and plant nurseries

Greenhouse Manager – Plans, purchases, and manages the plant production for a greenhouse.

Landscape Architects – prepare sites and design landscapes.

Agronomist – provides information to companies and farmers to sustain food production

Forester – Care for and maintain forest and trees.

Farmer – Produce grain and crops to help feed the world.

### Local Contact Information

#### Resources and Events

Participating in educational events and learning opportunities will expand your knowledge and skills in the project area. Contact your local K-State Research and Extension office for local opportunities.

Read your monthly 4-H newsletter for regional, state, and national opportunities.

Participate at your county Fair.

Attend the Kansas State 4-H Wheat Expo or the Kansas 4-H Horticulture Judging Contest.

Participate at the Crops Identification Contest.

#### Curriculum and Resources

Forestry (FO100)

- [Forestry 1--Follow the Path](#)
- [Forestry 2--Reach for the Canopy](#)
- [Forestry 3--Explore the Deep Woods](#)

Horticulture (PL100)

- [See Them Sprout](#)
- [Let's Get Growing](#)
- [Take Your Pick](#)
- [Growing Profits](#)

General Plant Science Resources

- [Junior Master Gardener](#)

#### 4-H Record Keeping

Learning to keep accurate records is a life skill. The following forms can help you:

- [Setting 4-H Project Goals \(4H1100\)](#)
- [Kansas 4-H Record Keeping](#)

#### Project Exhibit Ideas

- Fruits and vegetables from your garden.
- Mixed flower baskets you planted and cared for.
- Cut flowers from your garden.
- Forestry notebooks.
- A flake of hay you baled.
- Grain you harvested or grew.

[Exhibiting Fruits & Vegetables, Publication C405](#)

[Preparing Cut Flowers for Exhibit, Publication 4H826](#)

