



4-H PLANT AND SOIL SCIENCE PROJECT



Image: National 4-H Council

Step It Up!

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

Are you Into It?

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Cultivate new ideas by participating in a 4-H agriculture project!

- Learn how to plan, grow, and maintain a vegetable or flower garden.
- Learn about plant and soil sciences.
- Practice integrated pest management.
- Demonstrate how to properly harvest and use produce.
- Explore career opportunities in horticulture and plant and soil sciences.

Communication

- Lead an activity about the parts of a plant with younger 4-Hers.
- Write an article for the local newspaper on how to garden in small spaces.

Citizenship

- Adopt a flower garden at a local park, school, or nursing home.
- Plant a community vegetable garden at the county Extension office or a local park or school.

Leadership

- Teach a class on when and how to properly harvest fruits and vegetables.
- Lead a session on how to properly take a soil sample and interpret testing results.

4-H is a community of young people who are learning leadership citizenship and life skills.

Here's what you can do all year!

Starting Out Basic/Level 1

- Research the different parts of a plant.
- Learn when, where, and what to plant in a garden.
- Prepare a plan and layout for a garden.
- Learn how to take a soil sample.
- Learn how to properly prepare the soil.
- Plant and maintain a garden.
- Identify insects and weeds commonly found in a garden.

Learning More Intermediate/Level 2

- Research different plant varieties.
- Learn how to interpret soil test results.
- Learn about integrated pest management.
- Investigate growing versus buying vegetables.
- Build a backyard compost bin.
- Learn how and when to harvest different vegetables and fruits.
- Learn how to prepare harvested produce.

Expanding Horizons Advanced/Level 3

- Investigate intercropping and double-cropping methods.
- Identify plant diseases.
- Research genetic engineering in fruit and vegetable plants.
- Keep financial records.
- Research organic versus chemical fertilizers.
- Create a business plan.
- Learn proper storage and preservation methods for fruits and vegetables.

Learn more at www.kentucky4h.org or contact your county extension office.





Take Plant and Soil Science Further!

Here are some other opportunities to explore agriculture:

- Enter an exhibit in county and state fair.
- Invite a speaker to present on the importance of pollination.
- Attend a food preservation class.
- Host a potluck meal featuring fruits and vegetables grown locally.
- Tour a commercial horticulture operation.
- Be a member of a 4-H Land Judging Team.
- Create garden tools made from recycled materials.
- Host a seed swap event at your county Extension office.
- Research vermicomposting and create a worm bin.
- Tour the UK Plant Disease Diagnostic Laboratory.
- Learn about the advantages and disadvantages of using local produce in a restaurant by interviewing a chef.
- Job shadow at a local farm or nursery.
- Schedule a visit with the University of Kentucky College of Agriculture, Food, and Environment. Website: <http://www.ca.uky.edu/>

Exhibit Ideas

- Create a poster featuring cool- and warm-season vegetables.
- Develop a poster on backyard composting. Identify items that can and cannot be composted.
- Do a cost comparison of growing vegetables using chemical fertilizers versus growing vegetables organically.
- Develop a poster featuring beneficial insects.
- Create an exhibit on container gardening.
- Do a taste-testing exhibit featuring different fruits and vegetables grown locally.
- Create a poster on creating a pollinator garden.

Resources

4-H Resources	Other Resources	Record Keeping
<ul style="list-style-type: none"> • Afterschool Agriculture – Acres of Adventure • Kentucky Farm 2 School • Project Food, Land, and People • Junior Master Gardener – Teaching and Leader Guide • Junior Master Gardener – Handbook for Youth • Learn, Grow, Eat Go! • Gardening Level A – See Them Sprout • Gardening Level B – Let’s Get Growing • Gardening Level C – Take Your Pick • Gardening Level D – Growing Profits • Gardening – Helper’s Guide 	<ul style="list-style-type: none"> • Exhibiting and Judging Vegetables Publication • Making a Terrarium Publication • Ready, Set, Grow: A Kid’s Guide to Gardening in Kentucky Booklet • National Junior Horticulture Association http://njha.org/ • UK Horticultural Departmental Webpage http://www.uky.edu/hort/ • UK Plant and Soil Sciences Departmental Webpage https://pss.ca.uky.edu/ 	<ul style="list-style-type: none"> • Keep a record book of planting dates, weather, pesticide and fertilizer applications (if applicable), harvest dates, etc. • Record all costs associated with your garden, including seed purchases, soil testing costs, equipment expenses, etc.

