

# 4-H

## Ornamental Horticulture

### Proficiency Program

### A Members's Guide

---

#### Overview

---

Ornamental horticulture is an interesting 4-H project. You gain insight into nature and develop a better understanding of the basic principles of science relating to plant growth. You will learn to identify the parts of a plant and know their function. You will learn and demonstrate proper care of plants, including methods of plant propagation for ornamental plants grown outdoors. You will explore the different kinds of plants used in landscaping and how they are used, and you will develop an appreciation for the aesthetic values of ornamentals around a home. This project will help you develop an understanding of methods and values of scientific research and its influence on the ornamental horticulture industry.

You can get more information on ornamental horticulture from bulletins, magazines, and books. Ask your school or city/county librarian for help. Your 4-H office and county extension agent have a number of publications on different aspects of ornamental horticulture as well. Local junior colleges and universities may offer gardening classes and have experts who may be able to come speak to your 4-H group. California is known for its agriculture - look for nurseries, horticulturalists and others who may be willing to talk with you about ornamental horticulture. Local gardening

stores and agricultural supply houses may offer classes and other educational activities as well as selling plants and supplies.

The **4-H ornamental horticulture science proficiency program** helps you learn what you need to know about your 4-H ornamental horticulture project. There are five levels you may participate in - or you may choose to complete only one or two. The first level is "**Explorer**" in which you begin to learn about many different aspects of growing plants. In the second level, "**Producer**," you learn more about different types of plants, their use in landscaping, and propagation. In the "**Consumer**" level (third) you become experienced in many aspects of ornamental horticulture. The fourth level, "**Leader**," allows you to really "take off" in showing your own leadership potential. The last level, "**Researcher**," is for those individuals who want to research a topic in depth, and prepare a paper on a fascinating subject about plants and ornamental horticulture.

As you work through your ornamental horticulture project, have your leader initial and date each skill item in a proficiency level when you have completed it. When you have finished all items in a proficiency level, have your leader sign the Certificate of Achievement and order a medal for you from the 4-H office. Congratulations - you have learned a great deal!

Humboldt County  
4-H Incentives and Recognition Program

name \_\_\_\_\_

**Level I**

**Explorer**

**Guidelines for Project Proficiency Award - Plant Science** (example projects: gardening & horticulture, mini gardens, container gardening, ornamental horticulture, plant & soil science)

- \_\_\_\_\_ 1. Identify and describe three species of trees or plants.
- \_\_\_\_\_ 2. Identify parts of a plant from a diagram or live example.
- \_\_\_\_\_ 3. Describe the basic requirements for good soil.
- \_\_\_\_\_ 4. Describe the basic garden preparation and maintenance equipment that a beginner needs.
- \_\_\_\_\_ 5. Explain the nutritional requirements of your plants.
- \_\_\_\_\_ 6. Explain how to tell when your plant is ill and where to look for a solution.
- \_\_\_\_\_ 7. Describe the life cycle of a plant starting with seed and ending with a mature plant.
- \_\_\_\_\_ 8. Find and use an organic way of fighting insect pests.
- \_\_\_\_\_ 9. Tag six plants with both the Latin and the common names.
- \_\_\_\_\_ 10. Submit management records for a minimum of 90 days that indicates how often you provide water, fertilizer, weed control, and general care of your garden.
- \_\_\_\_\_ 11. Demonstrate basic pruning techniques and equipment necessary for your plants.
- \_\_\_\_\_ 12. Define fifteen important, basic terms used in your project area.
- \_\_\_\_\_ 13. Explain two common courtesies when working with a group.
- \_\_\_\_\_ 14. Describe how to safely use three tools for gardening.
- \_\_\_\_\_ 15. Share one aspect of your project with other project members.

Humboldt County  
4-H Incentives and Recognition Program

Name \_\_\_\_\_

**Level II**

**Producer**

Guidelines for Project Proficiency Award - **Plant Science** (example projects: gardening & horticulture, mini gardens, container gardening, ornamental horticulture, plant & soil science)

- \_\_\_\_ 1. Identify and describe six different species of trees or plants.
- \_\_\_\_ 2. Give one example of a plant used for each of the purposes listed: cut flower, foliage accent, cut foliage, flower color, windbreak, lawn tree, parkway, species, hedge, border, barrier, background, fragrance, utility-medical, utility-food.
- \_\_\_\_ 3. Name four plant growth factors and explain the basics of photosynthesis.
- \_\_\_\_ 4. Collect seeds from vegetables, field crops, flowers, shrubs and trees. Mount and label the seeds you have collected.
- \_\_\_\_ 5. Participate in four different ways of propagation. Example: budding, cuttings, plant division, layering, grafting.
- \_\_\_\_ 6. Describe how your plant reproduces.
- \_\_\_\_ 7. Experiment with at least two types of fertilizer, then tell which you prefer and why.
- \_\_\_\_ 8. Demonstrate how to sanitize the equipment used with your plants.
- \_\_\_\_ 9. Describe and demonstrate what you can do to protect your plant during hot and cold weather.
- \_\_\_\_ 10. Describe and give control measures for at least three diseases or problem conditions.
- \_\_\_\_ 11. Visit an established operation and learn how the plants are cared for and marketed.
- \_\_\_\_ 12. Prepare one food dish from an edible plant grown in your project and share it with your family or project group.
- \_\_\_\_ 13. Identify and describe three species native to your area.
- \_\_\_\_ 14. Explain the difference between fine, medium, and coarse and how it will affect the appearance of the plant.
- \_\_\_\_ 15. Keep an account of cash expenses for equipment and materials.
- \_\_\_\_ 16. Do something creative with your project.
- \_\_\_\_ 17. Display your produce outside your project.
- \_\_\_\_ 18. Help someone else by sharing your knowledge or by giving away a product from your project to demonstrate positive citizenship.

Humboldt County  
4-H Incentives and Recognition Program

Name \_\_\_\_\_

**Level III**

**Consumer**

Guidelines for Project Proficiency Award - **Plant Science** (example projects: gardening & horticulture, mini gardens, container gardening, ornamental horticulture, plant & soil science)

- \_\_\_\_\_ 1. Test your soil, then describe how you would replenish the soil with needed nutrients.
- \_\_\_\_\_ 2. Contact a local, state, or national association related to your project and determine what this association has to offer for you.
- \_\_\_\_\_ 3. Describe the destruction of plants by various animals.
- \_\_\_\_\_ 4. Make a chart that explains how good selection can improve your stock. Describe self and cross pollination and the advantages and disadvantages of each.
- \_\_\_\_\_ 5. Invite and introduce a guest speaker at one of your meetings.
- \_\_\_\_\_ 6. Name two pros and two cons of chemical pesticides.
- \_\_\_\_\_ 7. Describe four types of soil structure and what you can do to improve each.
- \_\_\_\_\_ 8. Demonstrate three methods of weed control and explain when you would apply each method.
- \_\_\_\_\_ 9. Report on a secondary aspect or by-product of your project industry.
- \_\_\_\_\_ 10. Keep an account of cash expenses, time and labor charges. At the end of the growing season, compare your crop yield to your expenses.
- \_\_\_\_\_ 11. Keep a personal reference library of literature that will be helpful in your project.
- \_\_\_\_\_ 12. Describe five things you should consider in landscaping your home and tell why.
- \_\_\_\_\_ 13. Explain how to irrigate the following: container grown plants, lawns, and field crops.
- \_\_\_\_\_ 14. Take part in a demonstration or judging contest specific to your project area.
- \_\_\_\_\_ 15. Report the history of one aspect of your project. (equipment, technique, origin, etc.)
- \_\_\_\_\_ 16. Alone or with a group plan an activity related to your project.

Humboldt County  
4-H Incentives and Recognition Program

Name \_\_\_\_\_

**Level IV**

**Leader**

Guidelines for Project Proficiency Award - **Plant Science** (example projects: gardening & horticulture, mini gardens, container gardening, ornamental horticulture, plant & soil science)

- \_\_\_\_ 1. Complete one year as Junior or Teen leader in this project.
- \_\_\_\_ 2. Assist younger members in designing and constructing needed equipment.
- \_\_\_\_ 3. Prepare teaching materials for use at project meetings.
- \_\_\_\_ 4. Develop and put on a demonstration or judging event or train a junior team for such an event.
- \_\_\_\_ 5. Speak on a project-based subject before an organization other than your 4-H group.
- \_\_\_\_ 6. Assist at a horticultural event in your community.
- \_\_\_\_ 7. Assist younger members in learning a specific topic in the project.
- \_\_\_\_ 8. Develop your own special activity. Chart your progress, plan the activities, analyze successes and problems, and report on findings.

Humboldt County  
4-H Incentives and Recognition Program

Name \_\_\_\_\_

**Level V**

**Researcher**

Guidelines for Project Proficiency Award - **Plant Science** (example projects: gardening & horticulture, mini gardens, container gardening, ornamental horticulture, plant & soil science)

- \_\_\_\_\_ 1. Carry through and report on the results of a demonstration comparing measurable differences in management procedure. (experiment)
  
- \_\_\_\_\_ 2. Prepare a paper of 300 words or more on one of the following subjects. Orally summarize report at project meeting or other educational event.
  - Management of plants
  
  - Fertilization
  
  - Diseases, prevention and control, and general sanitation
  
  - Markets and methods of marketing
  
  - Reproduction, breeding and genetics
  
  - By-product preparation for market, how marketed, and used
  
  - Keeping and using records as a basis for improving your plant project
  
  - Other