

4-H Plant Science Projects

Plants and Soils
Field Crops
Home Beautification

Flower Growing
Vegetable Gardening
Range Management

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The following leaders' guides have interesting activities for all Plant Science Clubs.
PA 377 *Soil and Water Conservation Projects and Activities: Leaders' Guide*
PA 614 *Conserving Our Natural Resources: Leaders' Guide*

Exploring the World of Plants and Soils

Excellent members' and leaders' manuals are provided. Suitable for urban and rural boys and girls. Each unit has many exercises and is a full 4-H project. Members should enroll for only one unit at a time, but might do the first unit in the fall and winter and another in the spring and summer.

It offers several seasons of fascinating exploration and is a good companion project for the field crops and flower and vegetable garden projects. Many of the exercises make interesting, informative displays or are excellent topics for public presentations.

2010 **I Plants and Soils**
2010L *Plants and Soils Leaders' Guide*

4-H members learn how plants grow and reproduce and how soils, water, sunlight, and other factors affect plant growth. They germinate seeds, make cuttings, do a variety of plant growth experiments, build a terrarium, and watch the plants grow. Most of the activities can be done indoors and during the winter months if desired.

2021 **IIA Plant Reproduction**
2021L *Plant Reproduction Leaders' Guide*

Members study the life cycle of a plant, learn the parts of a flower, make a seed collection, germinate seeds, study cross breeding, propagate plants by cuttings and other methods, and bud and graft shrubs and trees. This unit requires a full growing season—spring and summer.

2022 **IIB Soils**
2022L *Soils Leaders' Guide*

Members learn about soil, soil texture, soil structure, water-holding capacity, organic matter, fertilizers, erosion, cultivation, and how plants grow in different soils; they also make a soil map or profile.

2024 **IID Plant Characteristics**
2024L *Plant Characteristics Leaders' Guide*

Members learn how seeds germinate and grow, types of root systems, how stems carry water, how leaves transpire water, how they make starch, the function of flowers, use of nitrogen, pruning, how plants protect themselves, and ecology.

Field Crops

4-H members grow a crop. They learn to identify the common field crops and weeds; about the soil and how it is cultivated, fertilized, and irrigated; about crop varieties, seed control, harvesting, and marketing; how to produce home feed for livestock; and that crop production is the basis for livestock production. Members need not own the land or equipment but should have a business-like arrangement for their use. They have a choice of three plans: ownership, partnership, or management.

Activities include livestock and crop tours, crop judging and identification contests, and national awards programs in field crops and conservation.

Projects include field and sweet corn; forage crops—hay, silage, greenchop, pasture; potatoes; small grains—wheat, barley, oats; and other field and horticultural crops grown for sale or home use.

- 210 **Oregon Field Crops Projects**—use this outline for horticultural crops, too.
- 210R B1 My 4-H Crops Records—one record for each crop.
- 210L *Field Crop Program Leaders' Idea Manual*
- 2101 202 Plants and Seeds for 4-H Plant Identification and Crop Judging Contests (a list)
- 2101L 202L *Plant Identification and Crop Judging Leaders' Guide*
- 2102L 311 *Crops Identification and Judging Leaders' Guide*—a guide for setting up and scoring contests.

Horticulture

Horticulture projects include the growing of flowers, fruit, vegetables, and ornamental plants and home beautification. Are suitable for most urban as well as suburban and rural homes.

Activities include: flower and vegetable judging and identification contests, garden inspection tours, flower arrangement contests, and a national awards program.

The following materials are available to garden club leaders and members as needed:

- 230L *4-H Leaders' Horticultural Guide*
230R My 4-H Garden Record—all projects in this group use this record.

221 4-H Home Beautification Project

Boys and girls 12 and older learn more about flowers, shrubs, trees, and lawns. They study their home grounds and plan and make improvements.

- 231 **Oregon 4-H Flower Growers' Handbook**
PNW13 Arranging Flowers
HG91 Growing Flowering Annuals
X2 Planting a Rose: Demonstration Aid
HG25 Roses for the Home
HG82 Selecting and Growing House Plants

Members grow flowers to improve the appearance of home grounds and for cut flowers. They also make flower arrangements.

- 233 **Oregon 4-H Vegetable Garden Handbook**
EB614 Farm and Home Vegetable Garden
EC671 Fresh Market and Home Garden Vegetable Varieties
EB747 Vegetable Garden Insect Pests
EC653 How to Select and Prepare Vegetables for Exhibition
Members grow vegetables for home use. An area of 200 square feet or larger is desirable. They and their families enjoy garden-fresh vegetables.

Range Management

- 242 **Oregon 4-H Range Management Project**
PNW73 Pacific Northwest Range, Its Nature and Use
4002 4-H Mounting Card (8½ x 11)
Range Plant Leaflets (single copies free, \$2 for set of 75)

This project will help boys and girls become better acquainted with Oregon's rangelands, their value to the state and nation, and how they may be maintained and improved. They will learn about the soil and the important range plants of their area and how to manage them. Members collect, press, and mount range plant specimens. They prepare scrapbooks and conservation exhibits and learn how to judge rangelands. This project may be continued for several years.

Activities include tours, a range management youth camp, and a national awards program relating to the conservation of natural resources.

Cooperative Extension work in Agriculture and Home Economics, Lee Kolmer, director. Oregon State University and the United States Department of Agriculture cooperating. Printed and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914.
