

This project is for 4-H members who are familiar with many of the basic practices of container gardening. It compares different ways of doing things to see which is best for your location and situation. In this project you can try different gardening practices, different varieties of flowers and vegetables, and make judgments about varieties and practices to produce quality crops.

You may carry the Experimental Container Garden project for two or more years. Older 4-H members who are unable to obtain land for increased gardening may continue carrying the project.

Your experience in 4-H gardening, container gardening and experimental container gardening will prepare you for any container gardening experience. Growing vegetable or flower transplants, ornamental plants from cuttings, or supplying terrariums and dish gardens may be a way to profit from your skills.

Your Experimental Container Gardening Project

Requirements

- Conduct experiments with four vegetables or flowers. Each experiment must include two plants in each treatment and involve complete record-keeping and an evaluation of the experiment.

- Make a record of yield data, harvesting dates, and quality data on the experiments you have selected. Record growth patterns, plant vigor, foliage color, and plant size. If your ornamental plant is a flowering type, compare and record bloom production and quality. Photographs are an excellent way to visually record your experiment.
- Attend 4-H meetings and take an active part in the functions of the club.
- Evaluate the results of experiments in a two- or three-page summary. Be creative—use photographs and artwork, if possible.
- Visit 4-H projects, a university, or other container garden sites to learn from their efforts.

Suggestions*

- Participate in county judging contests. Become familiar with flower and vegetable quality to best evaluate your experiments.
- Exhibit plants grown in your garden project at a local or county fair. Specific exhibit requirements are in the premium list.
- Submit a garden record and story to your 4-H leader at the end of the project year.

* In some states these suggested activities may be requirements. Check with your local leader before you begin your project to be sure of the total requirements in your state.



Recordkeeping

Keep an up-to-date record book. Remember, you are experimenting—accurate records are a necessity.

- Label each container plainly and permanently.
- Prepare a separate record page for each experiment. List what you are comparing. Record the type of container, type of soil mix, variety planted, planting date, fertilizer schedule and type, harvest dates of flowers or vegetables, for flowers not picked, rate quality and quantity. Based on results, what are your conclusions? Which of the practices tested would you use for best container production?

Carrying Out The Project

Plan the garden

Discuss your garden project with your family. If this is the first year in this project, you may need a larger area than you had for previous projects.

Container gardening experiments can be adapted to the growing conditions available around your home. Some plants adapt to good production in a sunny location while others need more shade.

Which plants to grow

Certain plants are more adapted to container growing than others. Consider small to medium-size vegetables and ornamental plants. For example, many dahlias and squash plants are rather large for a portable container. Corn, with its extensive root system, also might not do too well.

Many plants produce ornamental and edible flowers, fruit, roots, and leaves. Use either indoor or outdoor plants in this project.

Choose your experiment

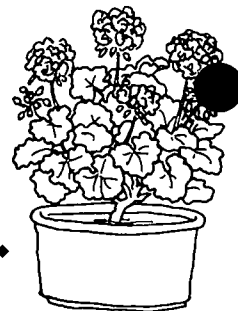
Examples of variables for you to consider are:

- Potting mixes.
- Color of container.
- Size of container.
- Variations of shade or light.
- Different fertilizer materials.
- Different timing of fertilizing.
- Different varieties of the same plant.
- Compare trailing plants on a support to letting them spray.
- Spacing in the container.
- Mulching the soil surface or pruning.
- Different watering schemes.

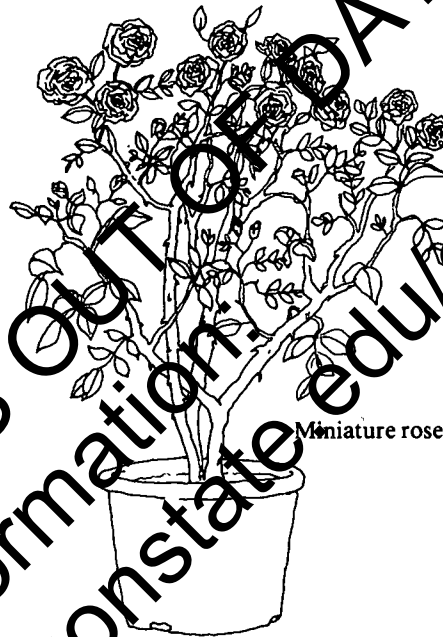
These are a few of the many ways to discover the best way to grow container plants. Discuss your experiment choices with your leader and other possibilities may develop. In your



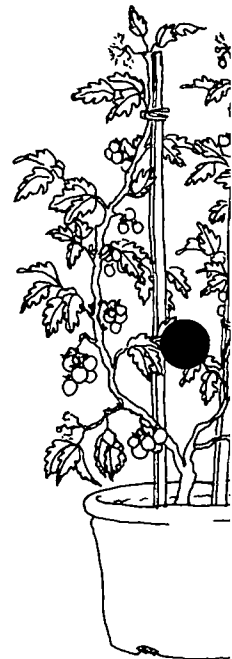
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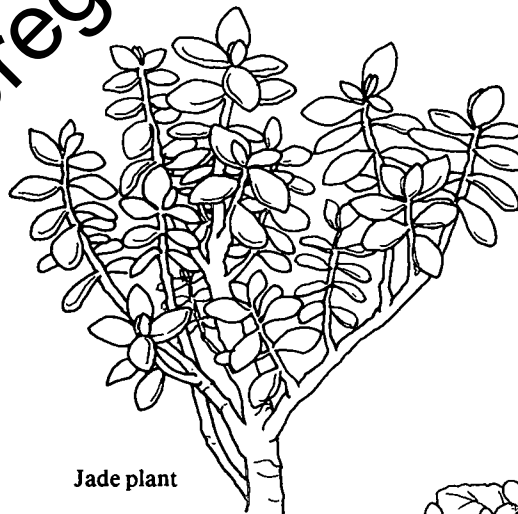
Geranium



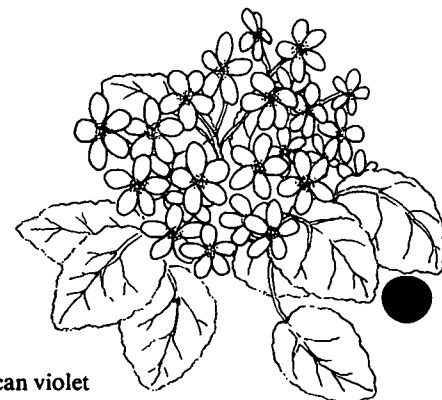
Miniature rose



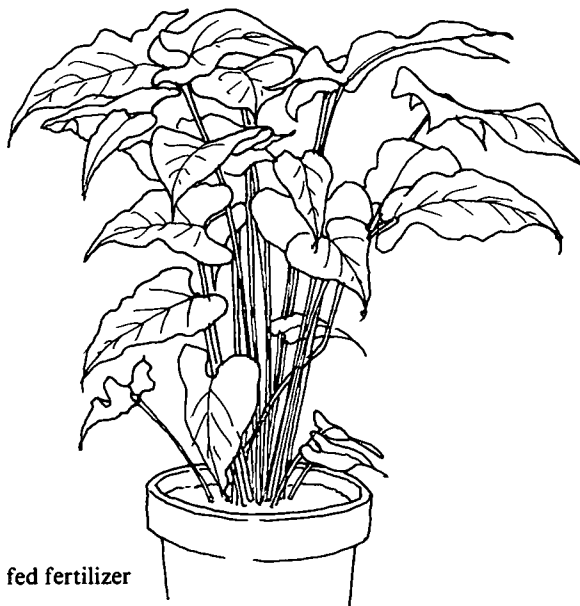
Cherry to



Jade plant



African violet



Plant fed fertilizer



Plant without fertilizer

experiments all growing conditions except the variable being tested must be the same. For example, the size of container, the soil mix, the variety, the sunlight, and the watering practices must be identical if you are comparing fertilizer treatments on two tomato plants.

The reason for having two pots of each treatment is to give you a better assurance that the difference you see is the result of your variable. Plants don't always behave exactly the same—by chance production may be different even if they had a different treatment.

Make a plan

- List the plants and the experiments you plan to do. Be realistic about the space and time available. Container gardens take more frequent attention than the same plants grown in the ground.
- Visit garden centers to determine costs of containers, soil mixes, fertilizers, and plants. Consult your parents after totaling expenses. You can construct many containers from inexpensive or scrap lumber. Cedar works well. Fir is satisfactory but will last longer if painted with a copper wood preservative. Do not use paint or creosote. Many recycled items may be used as containers. The container must last the growing season in both size and durability. For example, some light plastics and waxed cardboard containers are short-lived. Large cans are excellent and easily available.

Container gardening production

This project is designed for experienced gardeners who wish to try the business aspects of marketing transplants, ornamentals grown from cuttings, or planted terrariums and dish gardens.

Before choosing this option consider several obstacles. You will need more space than for container gardening. Some of the space will need to be enclosed in a greenhouse or made structure. This could involve a considerable expense. You will need to devote more time to make a successful project.

The product you produce will need to be marketed. You might talk with garden store operators to determine a plant you might provide them.

Parents and 4-H leaders will need to work closely with you to have a successful production project. Be sure to carefully consider the long-range potential and problems before getting involved in an elaborate undertaking.



Bonsai

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Prepared by Duane Hatch, former Extension agent, Oregon State University. Bill Boldt, Extension youth specialist, and Juanita Manley, Extension volunteer leader, made significant contributions in the development of this publication. Specialists from the University of Idaho and Washington State University also reviewed the material.

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