

MAKING A DESERT DISH GARDEN

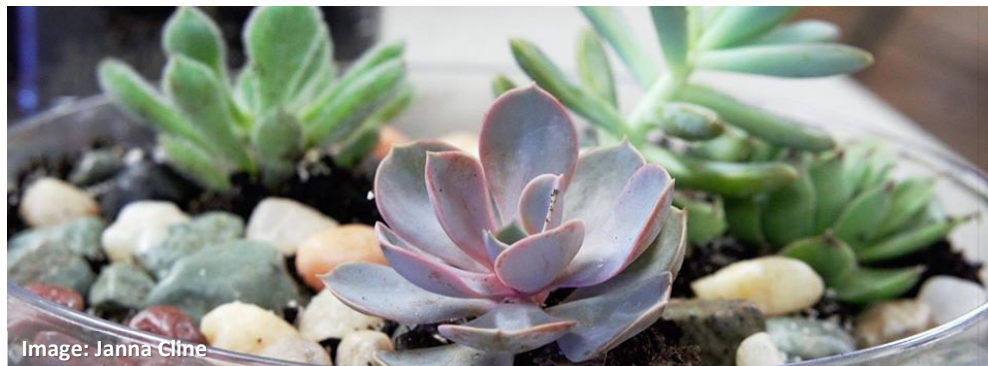


Image: Janna Cline

A dish garden is a collection of similar plants grown in an open container. In a desert garden, the plants are all succulents. Succulents are plants that can survive in a hot, dry climate because they can store moisture in their stems or leaves during rainy periods. During drier times, succulents give off moisture much more slowly than most plants. Evaporation is slowed down by wax or hairs or by a reduced surface area. (Many succulents have a spherical shape because a sphere has the smallest surface area for a given volume.) Succulents grow naturally in semi-deserts where long, dry-periods are broken by short, rainy periods.

Materials Needed

Plants: You can buy succulent plants from a florist or from a store that has a gardening/plant section. Choose plants of different sizes and shapes that will go well together to make an interesting garden, and that are in scale with the container you plan to use. Select small plants that grow slowly. Plants should fill the container but not crowd it. Examples of suitable plants to include are: Cacti, Agaves, Aloes, Euphorbias, Jades, and Echeverias.

Container: Any shallow dish, pan, or tray that is about 2 inches deep can be used. The size of the container will depend on the number of plants that you plan to use. Some suitable containers are plastic bowls, pottery dishes, or aluminum pie pans or trays.

Growing Medium: For the growing medium, you will need pea gravel, sand, and general potting mix.

Accessories (optional): To add interest to the scene you created, you can add rocks, wood, figurines, or other small décor items.

Additional Items: Gloves, and tongs or tweezers

How to Create Your Dish Garden

1. Clean your container.
2. Fill the container with the growing medium. Lay a thin layer of pea gravel at the bottom of the container (around $\frac{1}{4}$ inch thick). Then lay a thin layer of sand (around $\frac{3}{4}$ inch thick) and next a thin layer of potting mix (around $\frac{3}{4}$ inch thick). The medium should be around $\frac{1}{4}$ of inch from the top of the container.



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

With just a few essentials, a few minutes, and your creativity, you can make a desert dish garden. All you need are some cacti or other slow-growing succulent plants, a shallow dish, and plants. That's it.

Materials Needed

- Plants
- Container
- Growing Medium
- Gloves
- Tongs or Tweezers
- Accessories (optional)

State Fair Information

- Division 6015: 4-H Horticulture and Plant Science
- Class 566: Dish Gardens

Visit the 4-H Horticulture webpage at <https://4-h.ca.uky.edu/content/horticulture> for additional information.



How to Create Your Dish Garden *continued...*

3. Remove the plants from the pots they came in. To do this, gently tap or squeeze the sides of the pot and pull the pot away from the plant. Do not pull on the plant (this may damage the plant). If necessary, have an adult help you cut the pot away from the plant. If you are working with cacti, use gloves and tongs or tweezers to protect yourself from the thorns.
4. Decide how to place the plants. If the dish garden is to be viewed from all sides, place taller plants in the middle and shorter plants around the outside. If the dish garden is to have a front and back, place taller plants in the back and shorter plants in the front, so that all plants can be seen well.
5. Scoop out the growing medium to make holes large enough for the plants' roots. Set the plants in position, larger ones first, and press the growing medium firmly around the roots and base of each plant. Some of the growing medium may have to be removed from the container to make room for the plants' roots.
6. Add other items, such as rocks, wood, figurines, and small décor items to beautify your dish garden (optional).
7. Water the garden immediately, but do not flood it. Carefully tilt the container to drain off any excess water.
8. Dish gardens do best in hot, dry, sunny locations. Choose a room in your house that has plenty of sunlight, is warm, and is dry (as opposed to rooms that may have higher humidity levels such as bathrooms).
9. Keep the growing medium (soil) of your desert garden rather dry. Do not water too frequently. Some desert gardens may not need to be watered for two or three months. Always drain off any excess water.
10. Turn your dish garden container occasionally so that different sides are towards the sun to give the plants a balanced form.
11. If any plant overgrows the container, remove it and grow it as a single plant in a separate pot.

Project Suggestions

1. Complete one of the activities listed in the "Project Activities" section.
2. Take pictures or make drawings of the step-by-step process you completed to create your dish garden.
3. Present a 4-H demonstration on how to create a dish garden.
4. Exhibit your dish garden at the fair.
5. Complete the project record sheet provided at the end of the factsheet.

Project Activities

First Year Project

Make a dish garden with at least three different types of desert plants. Learn how to identify five desert plants and research each plant (such as where does the plant grow naturally, legends or myths about the plant, and uses of the plant part).

Second Year Project

Propagate new plants by taking cuttings from plants in your dish garden. With branching plants, break off a side branch and stick it in a shallow container of coarse sand. Many succulent plants can be propagated from single leaves. Break off a leaf and place it on the surface of the sand so that the base of the leaf is just covered. A new plant will develop. The new plants and rooted cuttings can be used to make another dish garden. Learn to identify five more desert plants and research each plant.

Third Year Project

Add more desert plants to your indoor garden. These can be grown in a dish garden, or you may want to find out how to raise and care for single specimens.

Visit the 4-H Horticulture webpage, <https://4-h.ca.uky.edu/content/horticulture> for the Kentucky State Fair guidelines and scoresheet for this project.

References:

Succulents and Cactus, A Sunset Gardening Book (Lane Magazine and Book Company).

Cacti and Succulents by Walter Hoage, trans. and rev. by E. E. Kemp, 1963 (E. P. Dutton).

The Cactaceae: Descriptions and Illustrations of Plants of the Cactus Family, by N. L. Britton and J. N. Rose (Dover).

4BE-13PO 4-H Indoor Gardening Project: Making a Desert Dish Garden prepared by Madge Balden Adams, former special assignment writer for Horticulture, 1976. Revised by Ashley Osborne, Extension Specialist for 4-H Youth Development, 2020.

Indoor Gardening Project: Making a Desert Dish Garden Record Sheet



Date _____

Name _____ Age _____

Address _____

Club _____

Years in 4-H _____
(including this year)

Years in this project _____
(including this year)

1. Tell what you did in this project. Include any pictures or drawings related to your project work.
2. If you have taken this project in past years, briefly explain what you did then.
3. What kind of container did you use? Where did you get the container?
4. What plants did you use in your dish garden? Where did you get them?
5. What succulents did you propagate? How? (for second or third year projects)
6. Where did you put your dish garden when it was finished?
7. What did you learn about succulent plants?



- 8. What problems did you have in making or caring for the dish garden?

- 9. Do you plan to raise more succulent plants in the future? What do you have in mind?

- 10. List and describe five or more desert plants and give any interesting information about them.

Plant Name	Description	Geographic Area of Natural Growth	Use	Other

11. Did you exhibit your dish garden?

Date

Location

12. Cost of Project

Item	Costs
Container	
Growing Media	
Plants	
Other	
Total	