Container Gardening
University of California Cooperative Extension
Stanislaus County

Container gardening is a fun and easy way to beautify a yard or apartment deck. Almost any plant can be grown in a container.

**CONTAINER TYPE**
Containers are made of clay, ceramic, plastic, metal, cement or wood. Or, get creative and use an old washtub, a wicker basket or a wagon.

No matter which container you choose, be sure that it has drainage holes. Without drainage, soil may stay too wet and roots may suffocate. Often, employees at nurseries and garden centers will drill holes in your container if you ask. If needed, drill several 1/4” holes in the bottom of your container.

**CONTAINER SIZE**
Many annual flowers and herbs can be grown in containers that hold just 1-2 gallons of potting soil.

For most vegetables, perennials, shrubs and trees, use containers that hold a minimum of 5 gallons of soil or more. Plants can start out in smaller size containers, but will need to be repotted as they grow larger.

**SOIL**
Purchase good quality potting or planting mix from a local nursery or garden center.

According to Cooperative Extension research done in Colorado, consumers should avoid using potting mix that contains sedge peat. This ingredient causes poor drainage. Using straight compost in containers may also result in poor drainage and plant growth.

Potting soils that contain fertilizer are available. Although more expensive, they help keep plants fertilized for the first few months.

**PLANTING DEPTH**
The roots and soil in the container are known collectively as the “root ball.” After planting, a few small roots at the top of the root ball should always be visible (with the exception of tomato plants, which can grow roots along the stem). Sometimes after watering, the root ball of a newly potted plant will sink. This is why you should plant it a little bit higher. If the root ball does sink, lift it gently and pack more soil around the roots.

**WHAT CAN I GROW?**
When designing container gardens, keep in mind that annual flowers, herbs and vegetables are grown according to season. The two main seasons are spring/summer and fall/winter, although some annuals planted in spring can live until frost.

If you would rather not replace your plants each season, use perennials in your containers. These plants can live for several years.

Another idea is to use perennials and annuals together, and simply replace annuals when needed.

**CONTAINER STYLE**
To create an attractive container garden, your plant palette should include at least one “tall” plant, a plant that cascades, and a plant that is “broad” or fills out the space between the tall and cascading plants. These three plant forms combine together to fill out containers nicely. An example would be purple fountain grass, (tall) an ivy geranium (cascade) and coleus (broad).

**COLOR & TEXTURE**
Experiment with color and texture. Combine complementary colors like blue and orange or yellow and purple. Use grasses and succulents to add texture to a container.

**SHRUBS AND TREES**
There are many mid to large size plants that thrive in containers. These include Japanese maple, star magnolia, hydrangea, azalea, gardenia, flowering maple, palms, bamboo, New Zealand flax, and banana.

Prune shrubs and trees lightly as they grow to control size and shape.
VEGETABLES
Many vegetables can be grown in containers. They will need at least 6-8 hours of sun. Certain vegetable varieties are better suited to containers. For example, the cucumbers ‘Burpless’ or ‘Liberty.’ For green beans, try ‘Kentucky Wonder’ or ‘Blue Lake.’ Use ‘Zucco’ or ‘Dixie’ for zucchini, and ‘Patio’ or ‘Pixie’ for tomatoes. Small varieties of melon can be used such as ‘sugar baby’ watermelon. Eggplants and peppers are small as a rule, so any variety will work. When purchasing seeds or plants, look for clues like “mini” or “pixie” which indicate that the plant is small in stature.

For radishes, beets and carrots, use deep containers so roots can reach needed depth. Give onions and garlic enough space to develop.

Corn is pollinated by wind and needs to be planted in “blocks.” This vegetable is difficult to grow successfully in containers.

FRUIT TREES
Some fruit trees can be grown in containers indefinitely. Others can be grown for a short time, but will eventually need to be planted in the ground.

Trees that can be successfully kept in containers include dwarf citrus, genetic dwarf nectarines, genetic dwarf apples and genetic dwarf peaches. Pineapple and strawberry guava trees can also live in containers.

SUCCELENTS & CACTI
These plants look great in terra cotta style containers. Both types of plants are sensitive to cold temperatures, and should be moved to a protected location in winter. During warm temperatures, they should be grown in partial shade.

HANGING BASKETS
To create a hanging basket, you will need a wire basket, a hanger with a hook, moss or coco fiber and 4” or 6 pack plants.

Before planting your basket, decide where you will hang it. Baskets hung above eye level look best when planted with cascading plants. Baskets hung at eye level or below need cascading plants as well as a broad accent plant that does not grow taller than the length of the wire.

There are two planting methods for hanging baskets. The first is to cover the inside of your basket with a coco fiber or moss (soak the moss 1-2 minutes first) and then add soil. Plant your selected annuals or perennials on the top and let them cascade. Water thoroughly.

The second planting is a bit more involved. In this case, you would use soaked moss to layer the basket on the bottom and sides, then add soil. Add plants from 6 pack containers (this size fits easily between wires) and continue to fill in with soil, moss and plants until the basket is fully lined. Then, add more plants on the top. Water thoroughly.

HOW OFTEN SHOULD I WATER?
Container plantings dry out more quickly than those in the ground. Plants in containers are limited by the amount of water the soil can hold.

In spring and summer, watch for signs of wilting. Plant death can occur quickly when temperatures are high and soil becomes dry. In winter and fall, containers can be watered less frequently.

HOW SHOULD I WATER?
Apartment gardeners are limited to using a watering can. Check plants every morning during warm weather. Second floor dwellers can keep pans underneath containers to prevent water from dripping below. Home gardeners have the option of using drip irrigation to keep containers watered.

When watering containers and hanging baskets, wet soil thoroughly. Water should drain through the drainage holes, an indication soil is saturated. Allow soil to dry out before applying more water.

FERTILIZER
Use fertilizer during the growing season (April-September). Choose a fertilizer that has a higher middle
number (phosphorus) like 10-15-10 to encourage flowering plants to bloom. For fruit trees and vegetables, purchase fertilizer that is labeled for this use and follow directions.

MAINTENANCE
“Deadhead” spent flower blossoms. You can also prune plants lightly to maintain the shape you desire.

RENOVATING CONTAINERS
Each season, observe your container plantings to decide if they should be replanted. For plants like succulents that replicate themselves, move them to another container or give them to a friend.

Plants living in containers may develop a large network of roots, or become “rootbound”, making it difficult for water to penetrate the soil. When this happens, it’s time to renovate your container. Rootbound plants may also seem stunted and yellow, and wilt faster than other plants in containers.

To renovate, carefully remove plants by tipping the container over and gently prying them out. The plants may be stuck together in one large root mass.

Once the root ball is free, use an old pair of pruning shears to separate the plants. Assess the plants. Perennials that have become too woody should be discarded. Of the remaining plants, cut off about 1/3 of the root mass. Wash out soil stuck between the roots. Add new soil to the container, then replant your plants. Make sure the top of the root ball is not covered with soil. Water thoroughly.

PLANTING IDEAS
Here are some suggested plant combinations categorized by season and sun requirements.

SPRING, FULL SUN
Mellow Yellow
- 1 Carex buchananii
- 2-3 coral bells (Heuchera species)
- 1 Ipomea ‘Lime Terrace’
Place coral bells on sides of a 12” or larger square shaped container. Add Ipomea ‘Lime Terrace’ in the front, and use carex (a small grass) in the back. The Ipomea, or sweet potato plant will live until frost. Replace with Johnny jump ups or other fall annual.

Pink Hanging Basket
- 2-3 strawflowers (Helichrysum)
- 3-5 pink verbena
Use strawflowers on the top as the “broad” plant and pink verbena as the cascading plants. Both are annuals and should be replaced in fall.

Terra Cotta
- 1 Mexican feather grass (Stipa tenuissima)
- 2-5 nemesia
- 2-5 million bells (Calibrocha)
Use a tall, terra cotta pot. Mexican feather grass is the accent plant. Then mix nemesia and million bells around the edges. These two plants may live for more than one season. However, if they become rangy they will need to be replaced. The feather grass is a perennial.

SPRING, PART SUN
Superb Herbs
- cilantro or parsley
- lemon balm
- thyme
Use a container that holds at least 5 gallons of soil. The cilantro will last for one season, the parsley is biennial and will last for two seasons.

Purple Daze
- blue salvia
- 1 heliotrope
- 3-6 Ajuga ‘Burgandy Glow’
Use a 2 gallon or larger container. The focal point will be heliotrope. Use a 12” or larger size pot. The ajuga is a perennial, but the heliotrope and salvias should be replaced in fall.

Made in the Shade
- 1 rex begonia
- 3-6 bacopa
- 1-2 liriope
Surround the rex begonia with bacopa. Add the liriope on the sides and/or back part of the pot. Liriope and bacopa are perennials, but the begonia will need replacing in spring.

Veggie Delight
- 1 ‘Patio Pixie’ tomato
- 1 pepper or eggplant
- 2-4 chamomile (Matricaria recutita).
Use a container that holds at least 5 gallons of soil. Accent the vegetables by adding herbs around the edges, depending on the container size.
Container Planting Suggestions

SPRING OR FALL, PART SUN

Succulent Pot
- 1-2 Aeoniums
- 1-2 ‘Hen and Chickens’
- 1-2 Sempervivum arachnoideum ‘Cobweb Houseleeks’

Arrange the succulents to your liking. This pot will stay green year round. Succulents propagate themselves. Gently pull off from the mother plant and transfer to another pot. Keep plants out of the full sun, which can burn leaves.

FALL, PART SUN

Fall Joy
- 1 Sedum ‘Autumn Joy’ or a Wallflower (Erysimum cheiri)
- 2-3 white cyclamen
- 4-5 creeping wirevine (Muehlenbeckia)

Use a 20” container or larger for this planting. This could also be a low hanging basket. The sedum and wirevine are perennial. The cyclamen bulb can be dug up after the plant dies back. Keep in a cool, dry place until fall and replant.

Pansy Cascade
- 6 delphiniums
- 6-10 pansies
- 6 variegated English ivy

Plant in a 30” pot or larger size container. Only the ivy will survive year-round. Add spring annuals like globe amaranth or impatiens when weather warms.

FALL, SHADE

Fairy Fern
- Choose a fern (Maidenhair, Mother Fern, Five Finger Fern)
- pink or yellow fairy primroses

Surround the fern with primroses. The fern is perennial. Replace primroses in spring with double impatiens.

YEAR ROUND, PART SUN

Evergreen
- 1 New Zealand flax
- 1 asparagus fern

(asparagus densiflorus)
- 2-3 kalanchoes
- 3-5 Plectranthus madagascariensis

Use a large container that holds at least 8 gallons of soil or more. A wine barrel is a nice choice. Place NZ flax in the center and the asparagus fern to the front right side. Add kalanchoes in other spaces and Plectranthus (Creeping Charlie) near the edges.

FALL, FULL SUN

Snappy
- 6 snapdragons
- 3 stock
- 5-6 nasturtiums

Use a 20” wide pot that is at least 1’ tall. Plant snapdragons and stock in the center. Use nasturtiums along the sides.

Poppy Love
- 6 Iceland poppies
- 3-4 Swiss Chard or red leaf lettuce
- peas or sweet peas

Use a 20” wide, 3-4’ tall pot. The peas will need several feet to trail. Iceland poppies are the focal point for this container. Add green or red leaf lettuce and Swiss Chard.

For more suggestions on container plantings, visit your local library in Stanislaus County. You can find books online, put them on hold and then pick them up and check them out.

Visit branches in Ceres, Denair, Empire, Hughson, Keyes, Modesto, Newman, Oakdale, Patterson, Riverbank, Salida, Turlock or Waterford. For more information about your local library, go to http://www.stanislauslibrary.org/
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BIBLIOGRAPHY


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