CONTAINER GARDENING

Vegetable Gardens

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Container gardens are an answer for persons with limited garden space. Residents of apartments, condominiums, retirement homes or houses on small lots can still enjoy gardening. Also, containers are mobile, allowing a gardener to take the plants along or move them for an instant splash of color. You can enjoy your plants more fully by locating them on patios, balconies or window boxes. Older gardeners can plant and tend to containers when standard gardening may be too strenuous. And, what better way is there for children to study the miracle of plant growth?

Container gardening, however, is not without its problems, especially in Kansas. A plant growing in an exposed location will be under more stress, and will need more regular watering. The effects of hot, dry winds may be more severe than in conventional gardens. Large containers can be expensive and difficult to move when filled with potting mix. But, the advantages far outweigh the problems, so let's get started growing—container style.

Soil Mixes

Soil is not always best for container gardening. When ordinary soil is saturated with water, the air spaces are filled, removing essential air from the roots. This is why a soil substitute, often called potting mix, is recommended. The mix may contain some soil (called soil mix) or no soil at all (a soilless mix). Additional ingredients such as peat moss, vermiculite and perlite allow rapid drainage but still hold sufficient water for plant growth.

You can purchase potting mix from nursery or garden stores under a variety of trade names: Jiffy Mix, Pro Mix, Metro Mix, Pro Soil and others. If you have only a few containers you may want to take them to your local greenhouse and have them filled with their greenhouse potting mix (for a fee).

You can also make your own potting soil. Remember to keep it simple; you don't need a different mix for each type of plant. One common formula mixes one part sandy loam soil, one part sphagnum peat moss and one part perlite or builder's sand. There are many variations of this basic recipe. Any mix containing soil has not been pasteurized to kill weeds or disease organisms, so use these mixes for established plants. Potting mixes should be free of disease organisms, insects or weeds.

Consult references in your local library or K-State Research and Extension office for additional information on container gardening, including recipes for mixing large quantities of potting mix from a variety of ingredients.

Containers

Containers come in a variety of styles and sizes. Of course, you can recycle old buckets, cans and similar containers. The only essential thing is that the container has holes in the bottom for draining excess water.

Plastic. Plastic containers are available in a variety of sizes, shapes and styles. Some plastics are breakable and may not hold up well for several seasons's use; others are more durable.

Clay. This old favorite is preferred by many gardeners for the earth tone color it provides. Clay is porous and water is lost from the sides of the container. Clay pots are breakable and may not hold up well if mobility is required.

Wood. Wood is a popular material for containers. Redwood or cedar is relatively rot resistant and can be used without staining or painting. Exterior grade plywood and other types of wood can also be used. Avoid using wood treated with creosote, penta or other phenolic compounds, since vapors can injure some plants. Always use copper-treated lumber if preservative-treated lumber is needed. Wooden containers are excellent for portability and can be purchased or built in a wide variety of sizes,

shapes and styles. Several container garden references offer plans for building attractive containers.

How big should the container be? This question can best be answered by considering the type of plants you plan to grow. There is a balance between the top growth and root systems of plants. Small plants can be grown in fairly small, shallow containers while larger plants need a larger container. Plants in "stressful" locations such as a hot patio exposed to the west or southwest winds, or in elevated locations, may need a slightly larger container than ones less exposed.

Most annual flowers and small vegetables will grow in containers from 6-inch pots to gallon-size containers. Larger vegetables, such as dwarf tomatoes, peppers or cucumbers will require 1- to 3-gallon containers. Full-size tomatoes and roses will require at least a 3-gallon container.

Fertilizer

Since potting mixes drain water rapidly, causing fertilizer to be washed out of the containers as you water, you will need to replace lost fertilizer. Lighter mixes will require more frequent fertilizing than heavier mixes containing soil. Remember, you are growing a plant with a small, constricted root system, so regular fertilizing and watering is important.

Many gardeners prefer to apply a dilute fertilizer solution at every other watering. There are several water-soluble fertilizer materials available at your garden supply dealer, including Rapid Gro, Hyponex, Miracle Grow and other products. If you fertilize at every other watering, use only one fourth the recommended rate unless the instructions state directions for continuous feeding for container gardening.

Controlled release or time release fertilizers are also becoming widely available. These are pellets designed to release fertilizer gradually over a long period of time. Use these according to directions on the package label.

Watering

Since containers are usually situated in an exposed location, water is quickly lost from the containers. Also, smaller containers have less of a reservoir for holding water until needed. There is no rule of thumb on how often to water since it will vary with type of plant, potting mix, weather conditions and type of pot used.

You may find that daily watering is needed during hot, dry periods. One advantage of using potting mix is that it is nearly impossible to over water since the water quickly drains out of the container. Check your plants regularly and look for signs of wilting to indicate a need for water. Another method is to stick your finger into the upper inch or so of the potting mix to feel for dryness. Always apply sufficient water to allow a small amount to come out of the bottom drain hole. This indicates the container is thoroughly saturated with water.

Potting mixes can be easily washed out of the container, so never water with a direct stream of water from a hose. Always use a "breaker" nozzle to break up the stream of water or a sprinkling can to apply water. A sprinkling can is handy for applying fertilizer as you water.

Since containers must be watered regularly, you will need to arrange for plant care when you vacation. Grouping plants together will reduce their water use. Some ingenious gardeners have developed a "trickle" device by punching a small hole in a large container that serves as a water reservoir (Figure 1). The water can then be channeled to one or more containers. The most reliable method of plant watering while you are away, however, is to arrange for someone to care for your plants. They can water plants as well as check for problems that may develop.

Figure 1.

Culture and Care

Plants need care and attention throughout the season. Insects and disease can be a problem because plants are growing under more stress and with limited root systems. Control measures will be similar to those used in conventional gardening. Refer to K-State Research and Extension publications for ways of dealing with garden pest problems.

What to Grow

Flowers. Many annual flowers can be grown in containers, especially those that tolerate heat stress. Especially popular are the many types of marigolds, geraniums and periwinkle (vinca). Impatiens will produce flowers in shady locations as will ageratum, begonias and nicotiana.

Vegetables. In recent years, there has been an emphasis on developing varieties suitable for container gardens. Vegetables require sunny locations and will vary in their productivity depending on the type of crop. Check seed catalogs for new varieties developed for this purpose.

There are also several types of “ornamental” vegetables adapted for growing in containers. Flowering cabbage and flowering kale are attractive relatives of the standard varieties. Lettuce is available in a variety of colors and leaf textures. Red chard is another popular container plant because of its bright red stalks.

Herbs. Many gardeners like herbs growing near the kitchen where they are handy to use in cooking. Basil, chives, marjoram and thyme are all easy to grow in containers. Many gardeners keep mint in containers since it is an aggressive plant that spreads over the garden. Some herbs are perennial and can be moved indoors for winter use or held in the container until next year. Many gardeners dig a hole in the garden to store pots of perennial herbs until the next season.

Annual Flowers Suitable for Container Gardening

Alyssum
- Carpet of Snow
- Royal Carpet
- Rosie O’Day

Begonia: Wax Leaf
- Glamour
- White Christmas
- Othello

Browallia
- Blue Bells (Improved)

Coleus
- Red Monarch
- Fashion Parade
- Magic Lace

Cuphea
- Firefly

Geraniums

Numerous varieties available with red, white, pink, salmon, coral and bicolor flowers.

Impatiens
- Tangeglow
- Elfin Hybrids
- Imp Hybrids
- Blitz

Lantana
- Yellow compacta
- White compacta

Lobelia
- Blue Cascade
- Sapphire

Marigolds
- **Dwarf French**
- Panther
- Queen Sophia
- Boy Series

Periwinkle (Vinca rosea)
- Little Bright Eyes
- Little Blanche
- Little Pinkie

Nasturtium
- Gleam Series

Pansies
- Mammoth Giants

Petunias
- Cascade Hybrids
- Comanche
- Bernese Hybrids

Salvia
- Carabiniere Hybrids
- Saint John’s Fire
- Victoria

Sanvitalia
- Gold Braid

Snapdragons
- Floral Carpet

Thunbergia
- Susie Mix

Torenia
- Mixed colors

Verbena
- Amethyst
- Blaze
- Sparkle Mixed Colors

Zinnias
- Button Series
- Chippendale

Vegetables: Dwarf Varieties for Container Gardening

Beets (cool season)
Detroit Dark Red
Early Wonder

Cabbage (cool season)
Dwarf Modern
Little Leaguer

Carrot (cool season)
Baby Finger Nantes
Goldenhart
Little Finger
Short 'n Sweet
Royal Chantenay or Red Cored Chantenay
Tiny Sweet

Cucumber (warm season)
Bush Whopper
Spacemaster
Patio Pik
Potluck
Salty
Bush Champion

Eggplant (warm season)
Morden Midget
Mission Bell
(standard varieties can be grown in larger 1–3 gallon containers as well)

Lettuce (cool season)
Leaf
Grand Rapids
Oakleaf (heat tolerant)
Salad Bowl
Ruby (red)

Butterhead
Tom Thumb
Bibb
Buttercrunch
Dark Green Boston

Muskmelon (warm season)
BushWhopper
Minnesota Midget
Sweet 'n Early

Onions (cool & warm season)
Use any standard variety of sets or plants. Best grown for green onions.

Peppers (warm season)
Most varieties do well in larger (1–3 gallon) size containers. Sweet, banana or hot peppers can all be successfully grown in containers.

Radish (cool season)
Cherrybelle
Champion
White Icicle

Squash (warm season)
Baby Crookneck
Creamy
Golden Nugget
Gold Rush
Various zucchini hybrids

Tomatoes (warm season)
Dwarf
Patio (dwarf)
Pixie (dwarf)
Sweet 100
Tiny Tim (dwarf)
Small Fry (larger vine)
Tumblin' Tom (baskets)

Small-Vined
Celebrity
Carnival
Mt. Spring
Mt. Fresh
Merced
Daybreak
Sunmaster

Watermelon (warm season)
Kengarden
Sugar Bush

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