



Growing Vegetables in Pots

The desire for homegrown vegetables is increasing as consumers become more interested in where their food comes from and what goes into growing it. It's hard to find produce that's fresher and closer than vegetables picked from your own garden. But for people with limited space, mobility, or time, traditional gardening can be difficult. That's where vegetable container gardening comes in. Growing vegetables in pots is a great way to get fresh produce without taking up much space. Plus, you know exactly what went into producing the food you eat. Follow these easy steps to get your garden started.

Choose your location

The logical place for your vegetable pot garden is on a patio or porch where you can easily enjoy, care for, and harvest your crops. Vegetables are sun-loving plants. Some leafy vegetables can tolerate partial sun, but root crops and fruit-bearing varieties like tomatoes, peppers, cucumbers, and eggplant prefer full sun. Plants should receive six or more hours of sunlight during the day. However, a fully exposed patio or porch can subject plants in pots to high temperatures and severe drying conditions, so if possible, choose a location with a little protection from wind or with a bit of protection from the full afternoon sun. Also, when choosing a location, consider access to a spigot for watering convenience.

Choose your container(s)

The first step to pot gardening success is to get a big enough container. Choosing a large pot, from 16 to 24 inches in diameter, will go a long way toward ensuring your success. Larger pots hold moisture longer and aren't as susceptible to tipping over in the wind – two important considerations in Kansas. Anything less than a 12-inch pot is probably too small. Consider factors like pot depth, weight, durability, and good drainage when selecting containers. Plastic, clay, ceramic, fiberglass, and wood are popular choices, and all have advantages and disadvantages. Plastic pots are lightweight and less expensive but not very durable. Clay pots are inexpensive and durable if protected from freezing but are heavy and tend to dry out quickly. Glazed ceramic pots are nice because they are attractive, but they are also heavy and more expensive. Fiberglass is both lightweight and

durable, but costly. If using wood, avoid treated lumber and look for containers made of cedar or redwood.

Fill with the right potting media

Soilless potting mixes are ideal for containers. The components are lightweight and hold water and oxygen much better than garden soil. Soilless mixes will also be free of weeds or diseases, and many contain a slow-release fertilizer.

Fertilize

Adding fertilizer to container vegetables is a must for good production. If you would like to grow organic produce, try mixing blood meal and bone meal into potting media before you plant. These add nitrogen and phosphorus that are readily available to the growing plants. Vermicompost and alfalfa pellets are also organic options. As the season goes on you can add nutrients when you water by selecting organic water-soluble fertilizers such as fish emulsion, compost tea, or kelp.

The nutrients most frequently lacking for growth are nitrogen (N), phosphorus (P), and potassium (K). If you choose to use synthetic fertilizers, add a slow-release variety when preparing containers. Try to find an N-P-K value such as 18-6-12, or something close to a 3:1:2 ratio. You can reapply this fertilizer again in late July. If you don't use a slow-release granular, then water-soluble fertilizers of similar nutrient ratios are also an option. In general, fertilizers that are high in phosphorus should be avoided for vegetable containers. High rates are simply not needed for good production, and if there is runoff, it can contribute to surface water pollution.

Choose and plant your crop

Most of the standard garden varieties of vegetables will grow well in containers, but there are some cultivars specifically bred for small spaces. See the list on page 2 for suggestions of dwarf varieties. Herbs are also great choices to grow in containers, either by themselves or mixed in with other vegetables. If you want to grow large or climbing vegetable varieties, prepare your cage or trellis system ahead of time. The less you disturb the roots after planting the better.

Just as in the garden, you can plant some crops directly from seed. Others, such as tomatoes, are best started from transplants. Follow within-row spacing recommendations provided on seed packages or in garden guides.

Cool-season salad crops such as lettuce and radishes can be planted before warm season crops such as a tomato or pepper, and harvested before the latter grow to full size. A large pot actually has quite a bit of planting area, so one can grow a significant quantity of vegetables for a continuous harvest during the season. A few examples of crop plans for 16- and 24-inch pots are given on page 3 and 4.

Watering system

This can be as simple as you and a watering can every morning, but ideally you should set up a small drip-irrigation system and put it on a timer to give your vegetables consistent moisture. (See also, K-State Research and Extension publication MF-2066, *Water*

Conservation in the Home Landscape.) Plants in containers dry out much faster than those in the ground and will likely need daily care during the hot periods of summer. Before watering, stick your finger into the soil to check for moisture and only water the container when the soil feels dry. Another way of checking whether a plant needs watering is to gently lift the pot (if it's not too heavy). A dry pot will feel much lighter than one with adequate moisture. Be sure to use a "breaker" nozzle on your hose or watering can to distribute spray evenly. Keep applying water until you see it running out the drainage hole.

Monitor

Keep an eye on your vegetables. Daily observation helps spot problems before they get out of control. See if the plants are getting enough water and fertilizer, and check for signs of insects or ailments. See other K-State Research and Extension publications for recommendations on pest and disease control. Frequently checking your pots also ensures that you harvest your produce right when it's ready.

Recommended Vegetable Varieties for Container Gardening

Vegetables for Spring/Fall

Beets (3-inch spacing): Detroit Dark Red, Early Wonder, Red Ace

Carrot (3-inch spacing): Little Finger, Short 'n Sweet, Royal Chantenay, Red Cored Chantenay, Thumbelina

Leaf lettuce (6-inch spacing): Grand Rapids, Oakleaf, Salad Bowl, Ruby

Butterhead Lettuce (6-inch spacing): Tom Thumb, Bibb, Buttercrunch

Onion (2- to 3-inch spacing): Use any standard variety; best grown for green onions

Radish (3-inch spacing): Cherry Belle, Champion, White Icicle

Vegetables for Summer

(plant after danger of frost is past)

Bean (4-inch spacing; Pole beans yield more per area — trellis them): Blue Lake, Kentucky Wonder, Fortex

Cucumber (8-inch spacing): Bush Whopper, Salad Bush, Patio Pickle, Spacemaster, Bush Champion

Eggplant (12-inch spacing): Fairy Tale, Bambino, Most standard varieties

Muskmelon (12-inch spacing): Minnesota Midget, Sweet 'n Early

Pepper (12-inch spacing): Sweet, banana, or hot varieties can be grown in larger containers

Squash (1 per pot): Golden Nugget, Gold Rush, Various zucchini hybrids

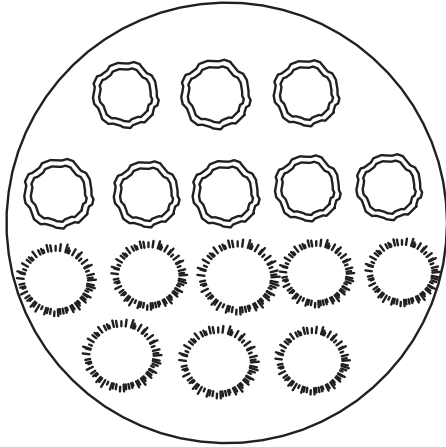
Tomato (Dwarf; 12-inch spacing): Patio, Pixie, Orange Pixie, Tiny Tim, Small Fry, Tumbling Tom

Tomato (Small-Vined; 1 per pot): Mountain Belle (cherry), Mountain Glory, Carnival, Sunmaster

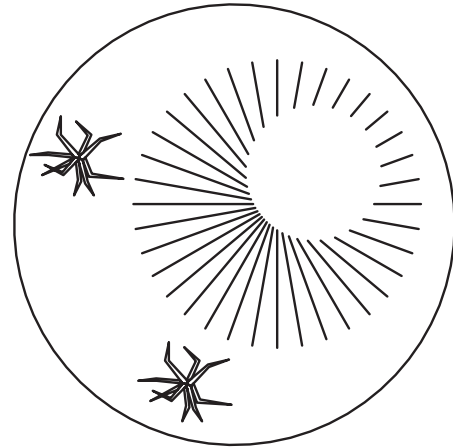
Watermelon (1 per pot): Sugar Bush

Vegetable Container Examples

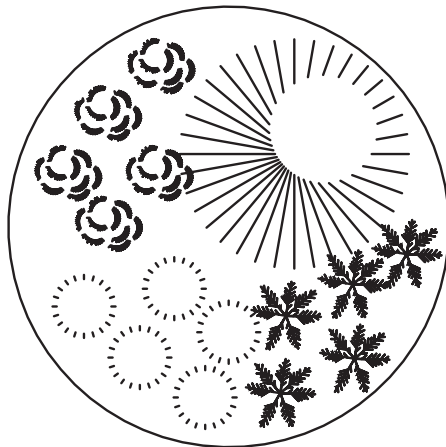
16" Pot, Spring/Fall:
8 Carrots, 8 Beets



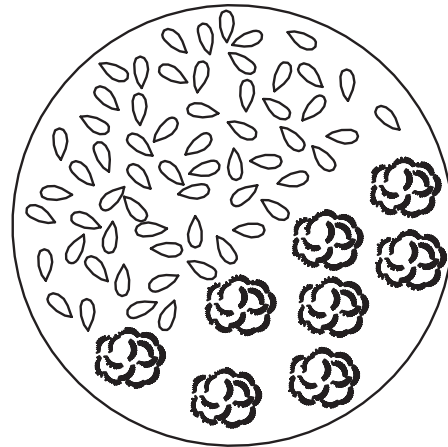
12" Pot, Summer:
1 Tomato, 2 Herbs



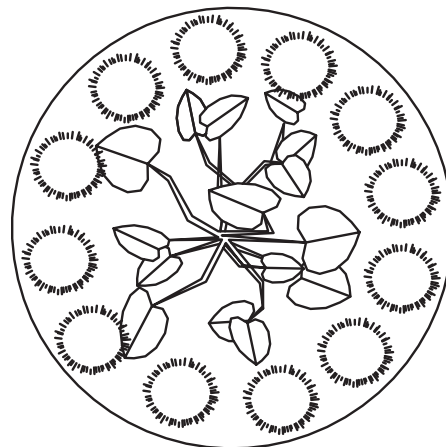
16" Pot, Spring/Summer
5 Lettuce, 5 Onions, 5 Radishes, 1 Tomato



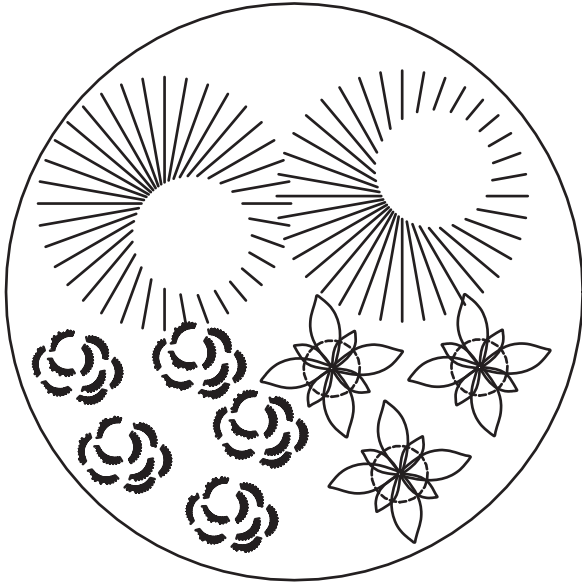
16" Pot, Spring/Fall
Arugula and Lettuce
(Seed thickly and thin as you harvest salad.)



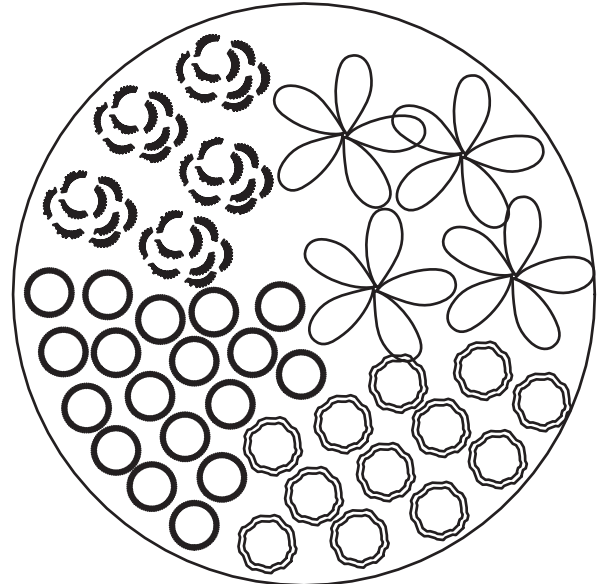
16" Pot, Spring/Summer
12 Carrots, 1 Watermelon



24" Pot, Spring/Summer
Salad Mix (Seed thickly and thin as you
harvest salad.) 2 Dwarf Tomatoes, 3 Basil



24" Pot, Spring/Summer/Fall
12 Beets, 18 Radishes, 5 Mixed Lettuce,
4 Pole Beans (trellis)



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