

Why Garden in Containers

- A gateway to gardening
 - Choose plants, number and sizes of containers to meet *your* wants and needs
 - Grow food anywhere
 - * Apartments, Condos, Townhouses, Rental properties
 - * Balconies, Patios, Driveways, Decks

Soil

Use potting soil or potting mix– the key to good drainage

- Why: containers need good balance of draining vs. holding water
 - * Plant roots need both water and air
- Easy: buy pre-mixed high quality potting soil at nursery, hardware store, discount store, etc.
 - * Look for ones high in bark, other forest products or sphagnum peat moss, plus some vermiculite or perlite. Different brands come with fertilizer or without, know what you're buying.
- Make sure soil is moist, not dry (e.g. if soil bag is left open) or soaking wet, before filling pot
- Fill pot with soil, patting it down firmly as you go
 - If using "self-watering" container, follow its instructions for making sure soil is in good contact with water "wicks"
 - Leave enough space at top of container to allow for watering
 - * Also allows for adding mulch if desired (recommended to reduce water needs)
 - * Anywhere from ½" on small containers to 3-4" on large ones

Water

- Containers need water more often than plants in ground
 - How often depends on container size and material, and particular plant(s) in the container
 - In general:
 - * Water more often the smaller the container
 - * Water more often the more "breathable" the material
 - Unglazed clay pots need water more often than plastic pots
- How to know when to water
 - Finger test, or Moisture Meter test
 - * OK: soil feels moist within 1-2" of top; or meter reads "moist" or between "dry" and "wet"
 - * Needs water: soil feels dry 2" or more from top; or meter reads "dry"
 - * Don't water:
 - Soil feels wet, soggy within 1-2" of top; or meter reads "wet"
 - Saucer under pot (if present) stays filled with water for more than an hour or so
 - Wilting, drooping plants and soil feels dry
 - * Emergency – water immediately!

Fertilizer

- Containers may need fertilizer more often than plants in ground
- Tomatoes don't need much fertilizer if good quality soil is used. Too much nitrogen will cause excess leaf growth.
- Peppers appreciate higher in nitrogen fertilizers.
- Many fertilizers available in formulations and/or with instructions for use in containers
 - Use fertilizer containing all 3 major nutrients – nitrogen (N), phosphorus (P), and potassium (K)
 - Always use as directed or *less, never more*. Start with half recommended amount to protect against burning.
- Easy:
 - Mix slow release fertilizer in soil when preparing pot, then add more as directed, usually every 3-4 months, some brands already have fertilizer in them, read label
- or
- Scratch organic fertilizer into soil surface when planting, then add more as directed, usually every 6 weeks
- Every season trade out at least half the soil. If plant became diseased, clean container with 1/10 part bleach solution and start with all fresh soil

Container Materials

Choice of container material is largely aesthetic, except for how often you'll need to water it and how easy it is to move

Unglazed clay and terra cotta

- "Breathes" so roots get air, but loses water quickly
- Soak pot in water before adding soil and plants; water often

Glazed clay or ceramic

- Holds water better than unglazed, but may be sold with no drainage hole (can drill your own holes)
- All clays and ceramics are heavy relative to their size, harder to move

Plastic & Fiberglass

- Holds water better, easy to drill drainage holes if needed
- Light weight relative to size, easier to move
- Often available in finishes that look like heavier materials, without the extra weight

Wood

- Water holding, breathability, and weight vary with design
- Example: recycled half wine barrels hold water well, must add drain holes, heavy – hard to move

Metal

- Can be like plastic, but may be heavier and get hot in sun

Container Sizes

Minimum size required is different for different plants. Use common sense, container base should be big enough to match plant size, i.e., tomato that grows 4' tall needs a large container so it doesn't tip, and has adequate root space)

Warm Season Vegetables:

- Beans: bush 2 – 3 plants for 12" diameter. If pole beans must provide trellis
- Cucumbers – 12" diameter for one with trellis, or rectangular 10" x 3' with trellis for multiple plants
- Eggplant, Peppers: about 10" diameter or larger per plant
- Herbs; basil, chives, cilantro, dill, garlic, mint, oregano, parsley, etc: allow 6 – 8" between plants, 10" deep (always plant mint and oregano in pots, never in ground)
- Summer squash, zucchini: 1 plant per large 20" container
- Tomatoes: cherry or patio size or classic varieties best for containers, 20" diameter or larger, use cage. Determinant varieties stay smaller and are well suited to containers.

Cool Season Vegetables:

- Beets, Carrots- Container at least 12" deep, allow 3 – 5" spacing for each plant
- Arugula, Chard, Kale, Lettuce, Spinach – allow 6" to 10" spacing, large 20" diameter container, or rectangular 10" x 2'
- Onions, Scallions – 12" deep, allow 3 – 5" spacing depending on variety
- Peas – need trellis, 12" diameter container
- Radishes – 8" deep, allow 3" between plants

Fruits

- Blueberries: 12" diameter container
- Citrus (dwarf): half wine barrel
- Strawberries: minimum 6" spacing (example: 4 plants per 24" long window box)

Other size/style considerations

- Built-in casters, or add plant dolly (5-wheel safest) for easy movement
- Special table-height containers for "back friendly" gardening
- Built-in trellis – great for pole beans, snap peas

Container Pests

"Digging" pests:

- Culprits: Squirrels; Cats: Cover exposed soil with "bird" netting, empty plant flats, or rocks.

"Nibbling" pests:

- * Snails & Slugs
Hand pick
Use copper barriers – copper tapes and foils are easy to use with containers
Use iron phosphate bait (e.g. Sluggo and generic versions)
- * Birds, Squirrels and more
Cover entire plant with bird netting – relatively small size of containers makes this easy