



Container Gardening 101

Why Garden in Containers?

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

- Light/exposure and water needs
 - Group like needs within a container
 - Annual flowers
 - Annual vegetables
 - Perennial flowers, shrubs, trees
 - Succulents
 - Pots with combination of plants/plant types
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Containers

Choose a look you like & consider pot's mobility and porosity.

- Unglazed clay and terra cotta
 - Porous ("breathes") so roots get air but walls lose moisture quickly
 - Expect to water more often than other materials
 - May suit lower water plants like succulents
- Glazed clay/ceramic
 - Holds moisture better than unglazed pots
 - May need to have bottom hole drilled, or not
 - Both glazed and unglazed clay/ceramic pots are rather heavy
- Plastic & Fiberglass
 - Holds moisture well and may be easy to drill bottom holes if needed
 - Light weight relative to size and easier to move
 - Often available in finishes that look like heavy materials but lighter than the "real thing"
- Wood:
 - Breathable, could be heavy, depending on size and amount of soil used
- Metal
 - Can perform like plastic in weight and moisture retention but may get hotter
- Optional "Pot in Pot"
 - Pot into a large plastic nursery container & place it inside decorative container
 - Be sure both have drainage
 - Can help keep container cooler by insulating it somewhat

- Plan to set your container up on feet or similar to provide good air circulation and drainage
 - If you use a saucer to protect a surface, consider putting feet or largish pebbles in it to assure the pot does not sit in water
 - Expect to put nothing other than potting soil and plants into the container: no layer of pebbles for “good drainage”. Water will not cross that layer so container depth has just been decreased.
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Soil

Use only potting soil from a shop (no earth from the garden!): the key to good drainage & good health.

- 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.
 - Most brands come with fertilizer in them. Check analysis on the bag to understand what you’re buying
 - Make sure potting soil is moist, not dry or soaking wet, before filling pot
 - Fill pot with soil, patting it down and around your plants as you go
 - Don’t put a layer of pebbles to improve drainage; you have just decreased your container depth without improving drainage
 - 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 as decoration/moisture conservation
 - 12" on small containers to 3-4" on large ones
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Mulch Material

Help conserve moisture and moderate soil temperature

- Organic (plant-based rather than synthetic) materials
 - Straw, if it looks good to you
 - Dried lawn clippings
 - Small wood chips for large containers and non-annual/edible plants
 - Coco disks (probably home-made or home-cut) to fit container
 - Shredded paper tucked & watered in
 - Gold fines/pea gravel for succulents
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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. For instance, unglazed clay pots need water more often than plastic pots
 - If drip irrigation, plan to water thoroughly by hand about every 2 weeks to assure all soil and rooting area is completely irrigated
- How to know when to water
 - Finger test, or Moisture Meter test

- Plant is OK: soil feels moist within 1-2" of top; or meter reads "moist" or between "dry" and "wet"
 - Plant 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
 - Wilting, drooping plants and soil feels dry
 - Emergency – water immediately!
 - If container resists absorbing water, sit it in a saucer of water & check hourly until soil is rehydrated
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Fertilizer

- Containers will need fertilizer more often than plants in ground because it is leached out by irrigation water
 - 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 plant roots.
 - Expect to add more fertilizer to potting soil surface each month to 6 weeks, depending on your plant types/ container sizes
 - Scratch dry fertilizers into the soil surface, below your mulch or
 - Use liquid fertilizers as part of your irrigation scheme, once each month or as needed
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Container Pests

- "Digging" pests:
 - Squirrels, Cats - Cover exposed soil with "bird" netting, empty plant flats, or rocks.
 - "Nibbling" pests:
 - Snails & Slugs - Hand pick, try copper barriers (copper tapes and foils), iron phosphate bait (e.g. Sluggo and generic versions)
 - Birds, Squirrels and more - cover entire plant with bird netting or wire netting– relatively small size of containers makes this possible
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Container Gardening 102: Long-term Container Gardening

Growing perennials, shrubs, trees in containers)

- Follow info for on containers, soil, water & fertilizer as for seasonal or annual plants
 - Expect to repot, divide or root-prune & repot every 3 years, or so
 - Expect to remove & replace 1/3 to 1/2 of potting soil, depending on root ball, at repotting
 - Fertilize according to plant needs & how much you want the plant to grow (or remain smaller)
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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)

Ornamental annual and perennial flowers

Choose pot size according to expected mature diameter and height of plant

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.
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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
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Fruits

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