Quick Tips for Successful Container Gardening

Choose plants:
- Select varieties suitable for growing in containers.

Provide light:
- Flowering plants and fruiting vegetables need at least 6 to 8 hours of light per day.
- Root vegetables need 6 hours of light per day.
- Leafy vegetables and herbs need at least 4 hours of light per day.

Select containers that:
- Hold enough soil for the mature size of plants
- Did not contain toxic materials
- Have drain holes.
- If there are no holes, either plant in a container insert or drill holes in the bottom of the container.

Purchase soil:
- Do not use garden soil. It does not drain well and may contain pests.
- Use potting soil.
- Use soilless mixes. You can add clean coarse sand, up to 10 percent of the container volume, to the soilless mix. The sand adds weight to the container when growing top heavy plants.

Add water:
- Containers need more frequent watering than in-ground landscapes.
- Containers may need daily or twice daily watering in the heat of the summer, when plants are larger.
- Water-holding polymers, mixed with potting soil, may help retain water in the container.
- Apply enough water so that the excess drains out. Empty drain saucers after watering.
- Use a turkey baster to remove water from drain saucers when pots are too heavy.

Add fertilizer:
- Mix timed release fertilizer with soil at planting time if the soil product does not contain any.
- Use soluble fertilizers according to label directions.
- Excessive fertilizer grows leaves and stems at the expense of flowers and fruit.
Vegetables suitable for container culture

Regardless of the vegetable, look for descriptor words like "bush," "compact," or "patio." Choose determinate (they reach a certain specified height providing you provide optimum conditions) as opposed to indeterminate (the plant continues to grow in height and width until frost).

**Cucumber:**
Salad Bush Hybrid, Spacemaster, Bush Pickle, Lemon

**Eggplant:**
Bambino, Slim Jim (Just about any variety works really as long as you provide a large enough container)

**Green Beans:**
Go for pole beans. They give higher yield in a much smaller footprint and you can add a trellis or place the container by a trellis or fence for them to sprawl onto. Try Blue Lake, Kentucky Wonder or French Dwarf. Choose the most productive varieties.

**Green Onions (Scallions):**
Crystal Wax, Beltsville Bunching, Evergreen Bunching. Onion sets are available in the spring and an easier choice for containers. Plant them about an inch apart.

**Leaf Lettuce:**
Any variety will do really well in containers, but some of the best flavored are Buttercruh, Salad Bowl, Bibb Rouge d'Hiver.

**Peppers:**
Frigatello, Cubanelle, Sweet Banana, Apple (hot) Red Cherry, baby bells. Again just about any peppers do well in containers. It really depends on your taste and heat buds.

**Radishes:**
Cherry Belle, Scarlet Globe, White icicle. Most any except Daikon.

**Squash:**
Ronde de Nice, Gold Rush. Definitely look for the "bush" types.

**Tomatoes:**
Patio, Pixie, Tiny Tim, Saladette, Toy Boy, Spring Giant. Look for determinate types.

Edible flowers for the kitchen garden

**Anise Hyssop** (Agastache foeniculum) perennial
**Bee Balm** (Monarda spp.) perennial
**Begonia tuberosa** (Begonia x tuberhybrida) annual
**Borage** (Borage officinalis) annual herb
**Chives** (Allium schoenoprasum) perennial herb
**Cornflower** (Centaurea cyanus) annual
**Daylily** (Hemerocallis spp.) perennial
**English Daisy** (Bellis perennis) annual/biennial
**Geranium, scented** (Pelargonium spp.) annual
**Gladiolus** (Gladiolus spp.) annual
**Hollyhock** (Alcea rosea) biennial
**Johnny Jump Up** (Viola tricolor) annual
**Lavender** (Lavandula angustifolia) perennial
**Lemon Marigold** (Tagetes tenuifolia 'Lemon Gem') annual

**Nasturtium** (Tropaeolum spp.) annual
**Pansy** (Viola x wittrockiana) hardy annual
**Pinks** (Dianthus spp.) annual
**Pot marigold** (Calendula officinalis) hardy annual
**Rose** (Rosa spp.) perennial
**Sunflower** (Helianthus annuus) annual
**Violet** (Viola cornuta) perennial
Growing Vegetables or Flowers in Containers

To Contain or not to contain?

**PROS**
- Small spaces
  - Apartment balconies
  - Sun porches
  - Patio homes
- Mobility
  - Sunlight/sunshade
  - Adverse weather
- More control
  - Pests, disease, weeds
- Experiment
- Isolation

**CONS**
- Needs more tending than plants in the ground
- More vulnerable to extreme temperatures
- Dry out faster, have less soil to draw nutrient from
- Constant care
  - Water
  - Fertilizer

Containers

Considerations:
- Drainage
- Porosity & Heat Conduction
- Weight & Size
- Durability & Cost

Container Materials

**Terra Cotta**

**Pros**
- Good air circulation
- Good drainage
- Many sizes, shapes
- Historical

**Cons**
- Allows evaporation
- Not winter proof
- Cracks & flakes in temperature extremes

**Glazed Ceramic**

**Pros**
- Many sizes, shapes, colors
- Retains water
- Good insulation properties

**Cons**
- Not winter proof
- Fragile
- Heavyweight

**Resin & Plastic**

**Pros**
- Many sizes, shapes, colors
- Lightweight
- Durable
- Drainage easily managed

**Cons**
- Poor air circulation
- Retains water

WHAT CAN YOU GROW?

- Vegetables
- Herbs
- Fruits
- Flowers

WHAT WE CAN GROW?

- Vegetables
- Herbs
- Fruits
- Flowers

Container Selection

**Size**
- Ample growing space – mature plants
- Bigger is better to retain moisture
- Small constricts root growth, stresses plants, depletes nutrients, susceptibility to disease
- Weight – if you have to move
What are Cultural Practices?

- Light & Orientation
- Soil
- Watering
- Fertilizer
- Plant choice

Cultural Practices

Soil
- Potting/container mix
- No garden soil
- No seed starting mix
- Not exclusively compost
- Soil polymers alleviate wet/dry cycles

Points of Reference
- 1-2 gallons of soil: peppers, chard, dwarf tomatoes
- 4-5 gallons of soil: average tomatoes, cucumbers, squash, eggplant
- 8" pot --- 1.5 gallons of soil
- 10" pot --- 2.5 gallons of soil
- 12" pot --- 3.5 gallons of soil
- 14" pot --- 4.5 gallons of soil
- 16" pot --- 5.5 gallons of soil
- 20" pot --- 6.5 gallons of soil

Cultural Practices

Water
- Adequate
  - inadequate = tough, bitter, stringy
  - smaller container = more water
  - water until it drains
  - summer 2x/day
  - finger test, screwdriver
- Consistent
  - hand vs drip system
  - timer

Fertilizer
- Vegetables = heavy feeders
- Time release added at root level when planting
- Water soluble added throughout season
- Excessive = foliage not fruit
  - Nitrogen stimulates foliage growth
  - Nitrogen = Nitrogen = Nitrogen

Container Vegetables

Questions
Container Vegetables
Pros & Cons

**PROS**
- More control
  - Pests, disease, weeds
- Mobility
  - Sunlight/shade
  - Adverse weather
- More control
  - pests, weeds, disease,
  - Experiment

**CONS**
- More tending than plants in the ground
- More vulnerable to extreme temperatures
- Not all vegetables work
- Dry out faster; have less soil to draw nutrient from
- Consistent care
  - water
  - fertilizer

What can you grow?
• Depending on variety
  - greens
  - root vegs
  - nightshades-tomatoe, eggplant, peppers
  - summer squash
  - beans
  - herbs

Plant Selection

**Cool Season**
- Intolerant of heat
  - prefers 60° - 80°
- Two plantings:
  - Early spring:
    - Mid-April to early-May
  - Late summer:
    - Mid-July to Mid-August

**Warm Season**
- Intolerant of frost
  - prefers 70° - 95°
- One planting:
  - Late spring:
    - Mid-May to Mid-June

Planting Vegetables

Clean containers
- 10% bleach solution
- allow container to air dry

Insulate inside container if necessary

Mix soil polymers into soil if using

Add slow release fertilizer

Moisten Soil

Add staking if necessary

Leafy greens
• 1-2 gallons of soil
• Lettuce
  - cool season or part shade
  - Spinach
  - cool season, full or part sun
  - look for non-bolting varieties
  - Collards
  - warm season, full sun
  - Kale
  - cool season
  - best for fall

Root Crops
• Carrots
  - cool season, full sun
  - succession sow, Plant in April for summer harvest, Plant in August for fall harvest

Radishes
- cool season, full sun
- succession sow
- Not as much leeway for harvesting

Potatoes
- full sun, lots of space & time
- high Nitrogen needs
- plant in March for July/August harvest

Nightshades

Peppers
- 2 gallon, 10-12” pot
- sweet or hot

Eggplant
- 5 gallon pot- 14”
- trellis or supports may be needed

Compact varieties
- Bambino
- Fairy Tale
- Japanese
Tomatoes

**Determinate**
- Plant grows 3-4 feet
- Compact/bushy
- One flush of fruit
- 2 gallon/10-14”
- ‘Bush Celebrities’

**Indeterminate**
- Plant continues growing and fruit up to first frost
- Can grow 6’ or higher
- Requires trellis, stake or other support
- ‘Early Girl’, Heirlooms
- Cherry, grape, patio, dwarf

Other Veggies

- Summer Squash & Cucumbers
  - 5 gallon pot, 14-20”
  - Requires lots of soil and space
  - Trellis or supports needed
  - Bush varieties need 3-4’
  - ‘Patio Snacker’
  - Black Beauty
  - Golden Scallopini

Edible Flowers

- Nasturtiums
- Mixed flowers
- Chives, Violas

Cultural Practices

**Light & Orientation**
- Leaf Vegetables: 4 hours (min)
- Root vegetables: 6 hours (min)
- Most vegetables: 7-8 hours full sun

Container Herbs

- Herbs grow well in containers
- Most enjoy bright sun & well drained soil
- Viola, mint, chervil do well in shade

Container Vegetables

**Support Systems**
- Wire cages or stakes for determinates
- Obelisks, ladders for indeterminates

Cultural Practices

**Water**
- Adequate
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  - smaller container = more water
  - water until it drains
  - summer 2x/day
  - finger test, screwdriver
- Consistent
  - hand vs drip system
  - timer

**Pests & Solutions**
- inspect plants often – pests, weather damage
  - aphids, squash /potato bugs
- Can be beneficial “friends”
- If you use a commercial control, make sure it is labeled for edibles- ‘Neem’

Extending the Season

- Use casters to move plants for protection
- Plastic sheeting, shade or horticulture cloth
- Wall-o-Water
Questions

Flowers in Containers
- Floral arrangements
- seasonal themes
- succulents
- foliage only
- ornamental grasses

Flower Container Design
- Scale

Theme

Seasonal Themes

Succulents

Focus On Foliage

Ornamental Grasses

Thrillers, Fillers, Spillers
Thrillers, Fillers, Spillers
Planting diagram

Last Words

Use your imagination
Don't be afraid to experiment
It's not a permanent commitment
Take photos and keep a garden diary