

# BIG GARDENS IN SMALL SPACES: ADVENTURES IN CONTAINER GARDENING



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# Agenda

- Benefits of growing in containers
- Container Types
- Sunshine requirements
- Soil Fertility
- Great crops for containers
- Irrigation/watering/drainage
- Companion planting
- Pests
- Tips and tricks
- Q&A

# Benefits

- ❑ Expand your in-ground garden capacity
- ❑ Grow fruits and veggies anywhere
- ❑ Move with the sun
- ❑ Lack of weeds
- ❑ No gophers!
- ❑ Don't have to deal with soil issues (*clay, sand, contaminated*)
- ❑ Able to control rapidly spreading plants
- ❑ Garden accessibility when you don't have a yard
- ❑ Grow indoors or outdoors







# What kind of container should I use?



# Container Types

## Plastic

- ❑ Will eventually break after exposure of the sun, but that takes awhile
- ❑ Holds water longer
- ❑ Cheaper
- ❑ Lightweight
- ❑ Wash any reuse plastic to kill any diseases/pests

## Ceramic

- ❑ Breaks easily
- ❑ Unglazed versions dry quickly
- ❑ Can be costly
- ❑ Heavy
- ❑ Great for succulents or drought tolerant plants



# Container Types

## Wood

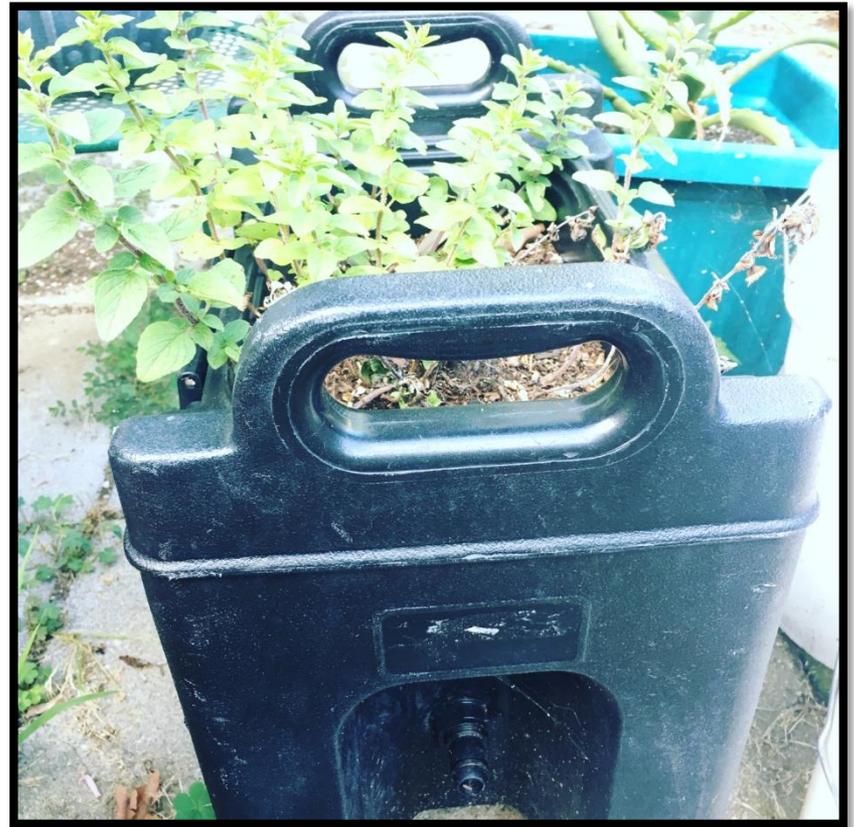
- ❑ Hold onto water longer
- ❑ Eventually it will break down
- ❑ Wine barrels have to stay full or wet in order to keep from shrinking

## Metal

- ❑ Can get hot and dry out the soil quicker
- ❑ Come in large sizes
- ❑ Can be expensive

# Container Types

- **Reuse Options**
  - 5 Gallon buckets
  - Plastic totes and barrels, etc (*food grade plastics*)
  - Coffee cans (*plastic and metal*)
  - Burlap (*1 season max*)



# Container Types



# Container Types



- Planting directly into bags of soil
- Hanging baskets (*DIY or purchase*)



# Container Types



- **Untreated pallets**
  - ▣ Be sure to check to see that they are marked with **HT** (Heat treated), these are safest to use
  - ▣ Be sure to give them a good washing before use to remove residue from previous use

# Container Types

- ▣ **Untreated pallets**
  - ▣ Can be used horizontal or vertical
  - ▣ Dismantle and make into raised beds or containers
  - ▣ Can also be hung



# Sunshine Recommendations

- Leafy vegetables need a minimum 4 hours
- Fruiting veggies need a minimum of 6 hours
- Shade loving edibles need a minimum 2-3 hours
- There are exceptions for lack of sunlight:
  - ▣ Is your garden surrounded by a wooden or rock fence?
  - ▣ Is there a lot of hardscape in your yard?: patios, pavers

# Soil Type for Container Gardening

- Use potting soil ONLY for container gardening
  - ▣ Contain drainage materials
  - ▣ Lighter than garden soils
- When filling containers, be sure to leave 1 inch or more gap below the lip of the container
- I always mix my potting soil with compost before placing in pot
- Since new planting soil is fluffy, it can quickly drain from your pot. Rocks, pottery shards or basket coffee filters work great to keep the soil in while it's settling

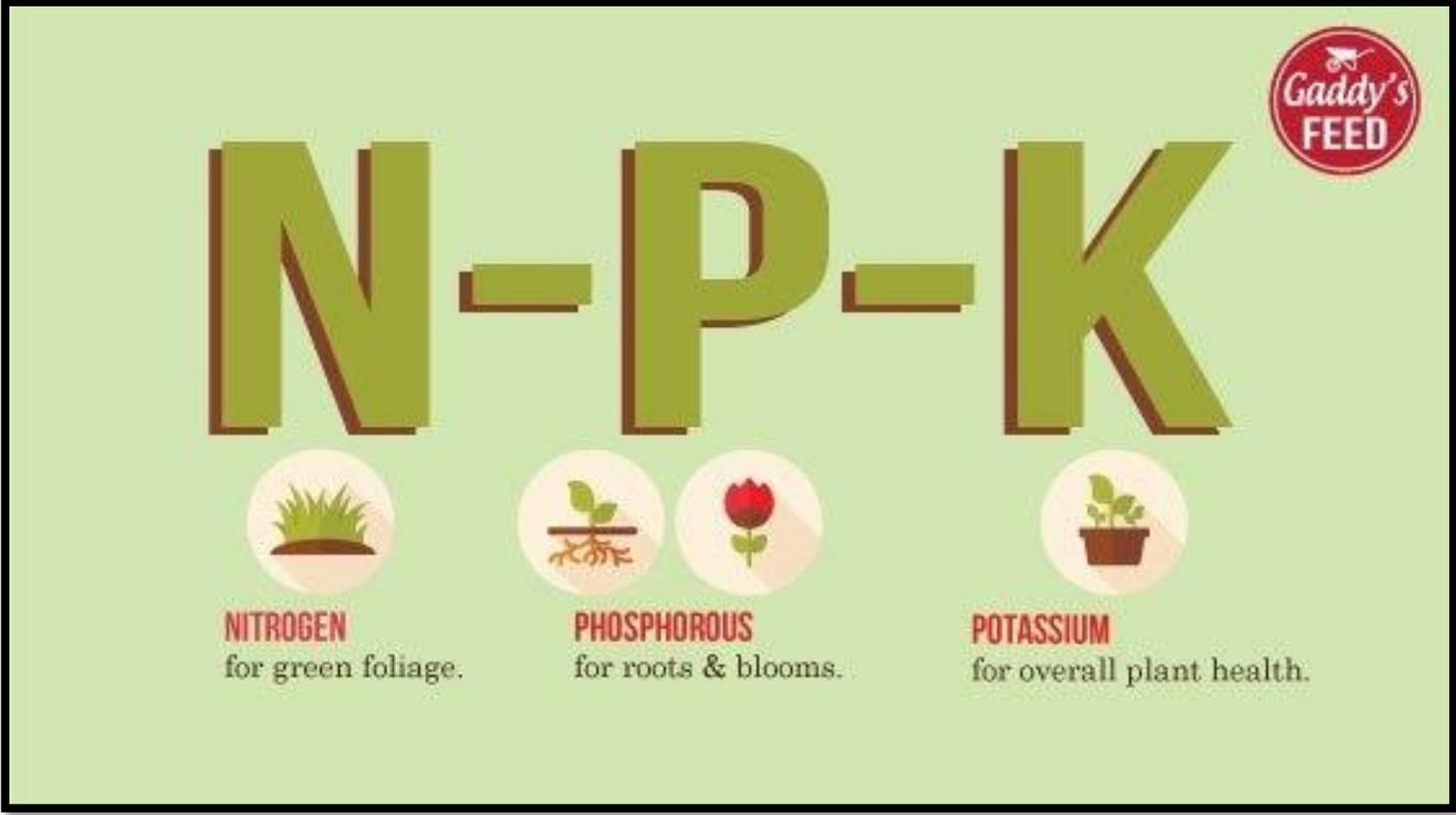


# Soil Fertility

- So **IMPORTANT** for container gardening
- Nutrition is limited to what is in the container
- Feed often depending on the plant type or what the plant “feeds on”



# Soil Fertility



The infographic features a light green background with a black border. At the top right is a red circular logo with a white wheelbarrow icon and the text "Gaddy's FEED". In the center, the letters "N-P-K" are written in a large, bold, green font with a brown outline. Below each letter is a circular icon: "N" shows a green grass tuft in a pot; "P" shows a green plant with roots and a red flower; "K" shows a green plant in a brown pot. Below each icon is the element name in red and its function in black.

**NITROGEN**  
for green foliage.

**PHOSPHOROUS**  
for roots & blooms.

**POTASSIUM**  
for overall plant health.

# Maintaining Soil Fertility

- **Top dressing-** adding soil amendments prior to planting (*1-2 inches depending on size of container*)
- **Side dressing-** adding soil amendments around existing plants
  - ▣ Add during flowering and fruiting times
  - ▣ Heavy feeders need more nutrition more often
  - ▣ Liquid applications work great at this stage

# Soil Amendments

- ❑ COMPOST- 1:1:1
- ❑ ALFALFA MEAL-  
3:1:3
- ❑ BONE MEAL-  
3:20:0
- ❑ FISH EMULSION-  
4:1:1



# Soil Amendments

## Building Soil with items you may already have at home

- ▣ **Coffee grounds**-high in acidity and nitrogen
- ▣ **Epsom Salts**-*Magnesium Sulfate*-good for nightshade plants
- ▣ **Calcium**-*crushed egg shells*-adds rigidity to annual stems
- ▣ **Potassium**-*dried and ground banana peels*



# Epsom Salt

Natural Magnesium Sulfate

- A soaking aid for minor sprains & bruises
- Nourishes sore muscles
- Use as a saline laxative
- Great for gardening, use as a plant nutrient

ALL NATURAL



# The Importance of Healthy Soil

- ❑ Increases the water holding capability in the soil
- ❑ Keeps the temp and moisture levels at a good balance
- ❑ Helps prevent pests and diseases
- ❑ Increases yields



# Great Crops for Containers



- Perennials
  - ▣ Tree Collards
  - ▣ Dwarf fruit trees
  - ▣ Strawberries  
*(especially in hanging baskets)*
  - ▣ Blackberries
  - ▣ Artichoke

# Great Crops for Containers



# Great Crops for Containers



- Most annual veggies (except for corn)
- Herbs (annual & perennial)
  - ▣ Culinary
  - ▣ Medicinal
- Edible flowers

# Irrigation/Watering/Drainage

- Saucers for smaller pots during the summer
  - ▣ You are able to capture the water if it drains too quickly
- Water in the morning or late evening
  - ▣ Be sure to water the soil and not the leaves (if possible)
- Hand watering works great for containers
- Straw mulch (for annuals) and coarse mulch (for perennials) will hold water longer and keep weeds at bay

# Irrigation/Watering/Drainage



- During the rainy season raise your containers off the ground
- Sometimes a “suction” can form on grass, mud or cement blocking drainage holes

# Irrigation/Watering/Drainage



- Moisture meter use before you water your containers
- This has been a game changer for me!!
- Best practice is to check the soil with a meter probe or a finger to see if the plant needs to be watered at al

# Companion Planting

**Growing certain plants near each other for mutual benefit or to help control pests**

**Example:** Carrots ♥ Tomatoes

- They don't compete for resources
  - ▣ Carrots prefer the shade
  - ▣ Tomatoes are sun lovers

**Example:** Tomatoes & Basil

- ▣ Tasty together on a plate
- ▣ Basil helps repel pests from tomatoes

# Pests



# Pests



- Typical pests you may encounter
  - Aphids (*seen here with ladybeetles*)
  - Cabbage worm
  - Snail/slug
  - Tomato Hornworm
  - Whitefly

# TIPS

- ❑ Be sure to include flowering plants to attract beneficial insects and pollinators
- ❑ If the plants are drought tolerant, plant on mounds or plant in terracotta to increase drainage



# TIPS

- Let some of your plants go to seed at the end of the season (or *when/if they bolt*)
  - ▣ Attract pollinators, birds and beneficial insects
  - ▣ Great opportunity to save seeds



# For More Information

- Sustainable Solano
  - [Sustainablesolano.org](http://Sustainablesolano.org)
    - Interested in Greywater workshops (Laundry to Landscape)?
- CompostGal
  - Find me on Facebook and Instagram
- Handouts will be available via a DropBox link sent to participants

# Thank You!!!



# Q&A

