Edible Container Gardens

Patrick Byers
Regional Horticulture Specialist
University of Missouri Extension

Upcoming Programs of Interest

• Bringing Back the American Small Farm, Mar 8-9, 2017, West Plains
• Missouri Blueberry School, Mar. 17-18, MSU Darr Ag Center, Springfield
• Blackberry Workshops, 1-4pm;
  – 4/26, 6/21, 7/26, 11/15; Southwest Research Center, Mount Vernon
  – 6/28; St Louis area
• Winter Vegetable Production Training Farm, Rocky Comfort – Twilight walks, 4th Thursday, 6pm; April-September
• Garlic Festival, Sept 6, Botanical Center, Springfield; 6-8 pm

Outline – Edible Container Gardens

• Choosing a container
• Selecting soil mixes
• Considering environmental factors
• Watering
• Fertilizing
• Overwintering plants in containers
• Choosing and combining plants
• Vegetable, fruit and herb and containers

Why Plant a Container Garden?

• Limited space
• Difficult soil conditions
• Create special gardens
• Great place to grow finicky plants
• Useful for non-hardy plants
• Restrain invasive plants
Choosing a Container

• Anything that holds soil and has drainage holes will work!
• Considerations
  – Eye appeal
  – Convenience
  – Cost

Choosing a Container

• Container material choices
  – Cast cement
  – Clay
  – Hypertufa
  – Metal
  – Molded plastic, resin, fiberglass
  – Nylon stockings
  – Plastic bags
  – Peat pots
  – Pottery
  – Stone
  – Stoneware
  – Wood
  – Wire
  – Recycled materials

Choosing a Container

• Consider the following
  – Does it soak up water?
  – Is the container heavy to move?
  – Will the container result in fluctuating soil temperatures?
  – Will the material rot over time?
  – Will the container survive winter conditions?

Choosing a Container

• Let’s talk about drainage
  – Drainage is critical to plant health
  – All containers should have drain holes
  – Beware of saucers!
  – What about double potting?
  – Self watering containers
Choosing a Container

- Stability
- Maintenance of the container
- Fit the container to the size of the plant(s)
- See handout

Selecting Growing Mix

- Characteristics of a good container mix
  - Well aerated
  - Well drained
  - Moisture retentive
  - Free from harmful organisms

Selecting Growing Mix

- Soilless or artificial growing mix – blends of the following
  - Peat moss
  - Vermiculite or perlite
  - Bark
  - Coir

Selecting Growing Mix

- Soil growing mix
  - Good quality topsoil – 25%
  - Peat moss – 25%
  - Compost – 25%
  - Perlite or coarse sand – 25%
  - Other ingredients
- Special situations
  - Blueberry – add sulfur
  - Citrus – add coarse particles like coir

Selecting Growing Mix

- How much growing mix does a plant need?
- Fillers for large containers
  - Crushed aluminum cans
  - Plastic milk jugs, soda bottles
  - Inert packing peanuts

Selecting Growing Mix

- Soilless growing mix
  - Advantages
    - Free from pest problems
    - Lightweight, easy to move pots
  - Disadvantages
    - Expensive for large containers
    - Dry out quickly
    - Fertility management
    - May need to be replaced after a few years

- Soil growing mix
  - Advantages
    - Soil mix contains nutrients from soil
    - Soil mix is heavier – stability
    - Easier to manage watering and fertility
    - Can be used for many years
  - Disadvantages
    - Soil may contain weed seed, insects, disease
    - Pots filled with this mix are heavier – hard to move
Selecting Growing Mix

- Some more thoughts...
  - Do not use 100% garden soil!
  - Avoid bagged topsoil
  - Lightweight mixes can lead to containers falling or blowing over
  - Lightweight mixes dry out quickly!
  - Fill containers to one inch below the rim

Environmental Factors

- Light and temperature
  - Moveable containers – place for peak performance
  - Non moveable containers – place in the proper place; for veggies and herbs, full sun!
  - Non hardy plants – move into a protected area when needed

- Wind
  - Can cause containers to blow over
  - Plants with large leaves can be damaged
  - Flowers and buds can become desiccated

Environmental Factors

- Heat absorption
  - Dark colored containers absorb heat – damage roots, medium dries out quickly
  - Choose plants carefully for these containers - herbs

Watering

- Factors that influence the frequency of watering
  - Time of year
  - Location of the container
  - How long the container has been planted
  - Type of container
  - Type of growing medium
  - Type of plant(s)
Watering

- **When to water**
  - When the first inch of medium is dry
  - When the pot is noticeably lighter
- **How much to water**
  - Water until the entire soil ball is moist – water runs out the drainage holes
  - Helps to leach away harmful salts
- **What type of water** – rainwater or untreated well water is best; avoid soft water or heavily treated municipal water

More thoughts...

- Soilless media can be difficult to moisten once dry
- Water by hand, or use a drip system
- Consider adding polyacrylamide gels to maintain moisture
- Be sure to water containers well before overwintering

Fertilizing Containers

- **Reality check!**
  - Rooting area available is often less than in the soil
  - Frequent watering leaches away plant nutrients
  - Soilless medias do not supply sufficient nutrients

Using slow release fertilizers

- Water soluble fertilizers encased in polymer coat
- Release nutrients over time
- Mix into the medium, or apply to the surface
Fertilizing Containers

- Using liquid fertilizers
  - Apply during watering
  - Apply to moist medium
  - Reapply every two weeks at full strength, or weekly at half strength
  - Use the right fertilizer

Overwintering a Container Garden

- Containers and overwintering plants
  - Move tender plants indoors
  - Prevent soil mass from freezing
  - Maintain moisture in the soil mass
  - Container damage is possible
- Keys
  - Large soil mass
  - Insulated container
  - Location in a protected area

Choosing and Combining Plants

- Simplest situation – one type of plant per container
- For veggie and herb combinations, choose plants with similar requirements
  - Soil, watering, sunlight exposure
  - Annuals vs perennials
  - Uses
  - Aesthetics
  - Be creative!

Creating Vegetable Containers

- Choosing types of veggies for containers
  - Dwarf or determinate types
  - Types that bear fruit or edible parts over a long period of time
  - See handout
- Choosing containers for veggies
  - Allow for full root size
  - Good drainage is critical
  - Avoid containers that contain toxins to plants or humans
Creating Vegetable Containers

- Tomato
  - Choose determinate varieties
  - Heavy feeders
  - Stake or cage (containers can get top heavy!)
  - Do not wet the foliage when watering

Creating Vegetable Containers

- Vine crops
  - Choose bush type varieties if available
  - Train cucumbers on cages

Creating Vegetable Containers

- Leafy greens
  - Consider succession plantings
  - Harvest leaves

Creating Fruit Containers

- Choosing types of fruit for containers
  - Strawberries
  - Bush berries – blueberries, gooseberries, currants
  - Dwarf or columnar fruit trees – apples, peaches, pears
  - Non-hardy fruits – citrus, figs
- Choosing containers for fruit
  - Allow for full root size – generally large
  - Good drainage is critical
  - Avoid containers that contain toxins to plants or humans
  - Durability is important – perennial plants
Creating Herb Containers

- Many herbs are adapted to containers, especially:
  - Herbs that require well-drained soils
  - Tender herbs that come indoors in winter
  - Herbs that are small and/or slow growing
- Recommended herbs for containers: Variegated sage, purple sage, golden sage, parsley, Greek oregano, rosemary, marjoram, bush basil, thyme, chives, and summer savory

Creating Herb Containers

- Invasive herbs work well in containers – mint, lemon balm
- Herb combinations are great!
  - Italian cuisine – basil, oregano, rosemary, thyme, parsley
  - Aromatic herbs – sage, lavender, chamomile
  - Tea herbs – spearmint, peppermint, chamomile
Gardening Class Series -- Marshfield, MO

Classic Herb Containers

Rosemary

Italian herb containers

Questions?

• Patrick Byers
• MU Extension – Webster County
• 800 S. Marshall, Marshfield, MO 65706
• 417-859-2044
• byerspl@missouri.edu