

## Edible Container Gardens



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## 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, 4<sup>th</sup> Thursday, 6pm; April-September
- **Garlic Festival**, Sept 6, Botanical Center, Springfield; 6-8 pm

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## 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

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## 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


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### Choosing a Container

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


 A photograph of a garden bed with a wooden fence in the background. Several potted plants in various containers are arranged in the garden bed.


### 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


 A close-up photograph showing a drill bit being used to drill a hole into a light-colored, textured surface, likely concrete or stone.


### 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

<ul style="list-style-type: none"> <li>• Soilless growing mix                     <ul style="list-style-type: none"> <li>– Advantages                             <ul style="list-style-type: none"> <li>• Free from pest problems</li> <li>• Lightweight, easy to move pots</li> </ul> </li> <li>– Disadvantages                             <ul style="list-style-type: none"> <li>• Expensive for large containers</li> <li>• Dry out quickly</li> <li>• Fertility management</li> <li>• May need to be replaced after a few years</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Soil growing mix                     <ul style="list-style-type: none"> <li>– Advantages                             <ul style="list-style-type: none"> <li>• Soil mix contains nutrients from soil</li> <li>• Soil mix is heavier – stability</li> <li>• Easier to manage watering and fertility</li> <li>• Can be used for many years</li> </ul> </li> <li>– Disadvantages                             <ul style="list-style-type: none"> <li>• Soil may contain weed seed, insects, disease</li> <li>• Pots filled with this mix are heavier – hard to move</li> </ul> </li> </ul> </li> </ul>
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### 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

- 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

## Environmental Factors

- 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

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### Watering

- More thoughts...
  - Soilless media can 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



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### 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

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### Fertilizing Containers


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



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### 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



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### 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



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### 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!

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### 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

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### Creating Vegetable Containers



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



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### Creating Vegetable Containers

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

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### Creating Vegetable Containers

- Leafy greens
  - Consider succession plantings
  - Harvest leaves




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### 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

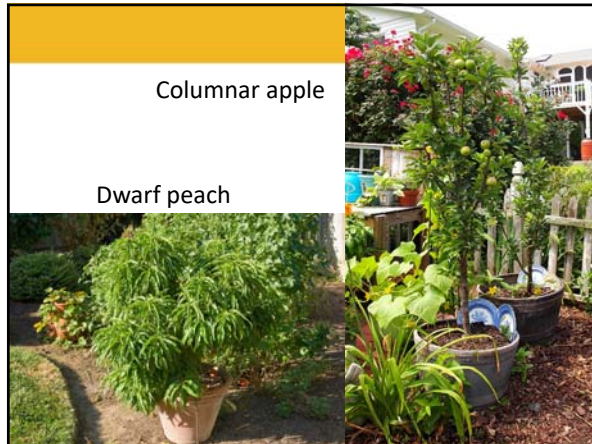
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Strawberry



Blueberry



### 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

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### 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

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**Questions?**

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