

INFOSHEET

Container gardening is a practical, low cost, space-efficient, and child-friendly approach to growing fresh produce at home, schools and in childcare centers. Children delight in growing and eating their own food. Research shows that repeated experience with healthy food options increases the likelihood of learning healthy eating habits. Using containers can be a permanent, flexible gardening strategy or a short-term first step towards a larger scale installation. Either way, containers are great for growing tasty herbs, delicious salad lettuce, succulent strawberries, and much more (see listing, p.2). Success depends on six key considerations.

1. Container selection

Edible plants can be grown in purchased, repurposed or recycled containers, as long as they meet two basic requirements: enough space for fully mature plants and adequate drainage (holes drilled in container bottom). Recycled or purchased 5-gallon paint pails (10" dia.) are a sturdy, inexpensive, temporary or permanent choice. Handles make them easy to carry around. Repurposed dish pans/tubs, children's wagons and splash pools, canvas bags, and even boots or shoes can work. Store-bought "grow bags" are another inexpensive choice. Available in different sizes, they are foldable and easily stored when not in use. Engage children in decorating containers to encourage ownership.

2. Suitable edible plants

Many annual edibles and some perennial edibles can be grown in containers, guided by USDA hardiness zone constraints (see 4, below). Plants can be grown directly from seed or as transplants (see companion *InfoSheets: Making Newspaper Seedling Pots* and *Starting Veggies Indoors*). Plants that spread, such as melons and pumpkins, are not recommended. For plants that climb, such as peas, beans, and cucumbers, provide vertical support using stakes, cages, trellises, or adjacent fences to grow on. Plants with similar needs can share the same container if large enough. Many annual edibles make tasty micro-greens (see 'M' listing, p.2).

3. High-quality growing medium

Usually called "potting mix," high-quality growing medium is critical to ensure that plants thrive in containers. Purchase in 2-cu.ft. bags from local garden supply stores. Using exclusively native soils



Containers make gardening easy indoors and outdoors!



Stakes support climbing edibles

in containers is not recommended. They are usually less absorbent, compacted, and less likely to provide enough nutrients to sustain vigorous plant growth.

4. Correct growing conditions

The [USDA Plant Hardiness Zone Map](#) is a key guide. In Zone 7 and higher (Most of North Carolina), both warm and cool season edibles can be grown in containers. For warm season edibles, plant after last frost-free date. For cool season edibles, plant about four weeks before last frost-free date. Extensive winter gardening tips (Zones 3-12) are listed in a [Mother Earth News survey of backyard gardeners](#). Apply liquid fertilizer every 3-4 weeks to ensure robust growth. Water frequently. Different plants need specific water, light, and nutrient conditions to thrive. For North Carolina, refer to [NC Extension Gardener Handbook/18](#). In other zones, check local cooperative extension resources.

5. Health and safety

Although recycled tire planters work well for flowering, ornamental plants, do not use for edibles as toxins may leach into the soil and be absorbed by plants. Do not use harvested rainwater to water edibles. Use only potable water.

6. Container sizes

Larger container diameters (10" recommended minimum), will reduce watering requirements and provide sufficient area for several plants. Depth is not so critical. Dish/pan containers will still be deep enough for shallow-rooted plants ('S' below). To clarify pot sizes, see [Pot Sizes Decoded](#). Diameters 10"-18" (5-gallon and larger) can be [bulk-purchased inexpensively](#).



Lettuce cultivated in outdoor grow bags



Peppers in recycled paint buckets



Repurposed kiddie pool planter



Containers offer a flexible mix of fruits, vegetables, and flowers to any sunny, outdoor space!

RECOMMENDED CONTAINER PLANTS:

Annuals:

- Arugula (rocket) (C, M)
- Basil (W, M)
- Bell Pepper (W)*
- Broccoli (C, M)
- Bush or Pole Beans (W)
- Cabbage (C, M)
- Carrots (C)
- Cucumber (W)*
- Eggplant (W)
- Garlic (W)
- Kale (C, M)*
- Lettuce (C, S)*
- Mustard Greens (C, M)
- Potatoes (W)
- Radishes (C, S, M)
- Spinach (C)*
- Sugar/Snap Peas (C, S, M)
- Sweet Potatoes (W)
- Swiss Chard (C, M)
- Tomatoes (W)*

Perennials:

- Chives (W)
- Oregano (W)
- Rosemary (W, C)
- Strawberries (W, S)
- Thyme (W)

KEY:

- W Warm season
- C Cool season
- S Shallow roots
- M Can be grown as micro-greens
- * Can be started indoors

ADDITIONAL RESOURCES

1. NC Extension Gardener Handbook. Ch.18, Plants Grown in Containers: <https://content.ces.ncsu.edu/extension-gardener-handbook/18-plants-grown-in-containers>
2. NLI/NC State Extension – LOCAL FOODS Childcare Center Gardening Series: <https://naturalearning.org/Gardening+Series>
3. *Kids Container Gardening*. Cindy Krezel. 2nd. Ed. Ball Publishing, 2010.
4. *The Bountiful Container*. Rose Marie Nichols McGee & Maggie Stuckey. Workman, 2002.

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