Colorado Master Gardener[sm] Program
Colorado Gardener Certificate Training
Colorado State University Extension

CMG GardenNotes #724

Vegetable Gardening in Containers

For basic information on container gardening, refer to CSU Extension Fact Sheet #7.238, ***Container Gardens,*** available on-line at www.ext.colostate.edu/pubs/garden/07238.html.

Container vegetable production is somewhat more demanding than growing flowers and other ornamentals in containers. Quality of most vegetables is based on the soil's ability to provide a constant supply of water and nutrients. Vegetables become strong flavored, stringy, and tough under dry or low fertility conditions. With the limited root spread in a container, the gardener must frequently and regularly supply water and fertilizer. In growing container flowers, minor lapses in daily care may interrupt flower production, but flowering eventually resumes with returned quality care. With container vegetables, minor lapses in daily care may significantly reduced produce quality.

Warm Season Vegetables

Warm season vegetables prefer warmer summer temperatures (70^o to 95^o) and are intolerant of frost. They are typically planted after the average spring frost date as summery weather moves into the areas. Along the Colorado Front Range, planting time would be mid-May to early June.

Cool Season Vegetables

Cool season vegetables prefer the cool growing temperatures (60^o to 80^o) of spring and fall. Most are intolerant of summer heat. They do tolerate light frosts. Leafy and root vegetables prefer full sun, but are tolerant of partial shade. They are intolerant of reflected heat during the summer season.

Spring crops are typically planted two to four weeks before the average spring frost date. Along the Colorado Front Range, spring planting times are mid-April to early-May. Most are replanted in mid-July to mid-August for a fall harvest.

The quality of these vegetables is directly related to their ability to grow rapidly in a good soil mix under frequent light fertilization and a constant supply of water. Crops become strong flavored if they become dry.

Warm Season Vegetables

Vegetable	Minimum Container Size*	Minimum Direct Sunlight Per Day	Remarks
Beans	8" deep	full sun	• In a long box 12" wide, plant bush beans or trellis pole beans. • Beans have a high water requirement during blossoming. • Beans drop blossoms with dry soil or excessive wind.
Cantaloupes Muskmelons	5+ gal/plant	full sun	• May be trellised to conserve space. • Compact varieties preferred for container gardening. • With male and female blossoms, may need hand pollination. • Needs good air circulation to minimize powdery mildew.
Cucumbers	8" deep 3+ gal/plant	full sun	• Grow bush-types in hanging baskets or on a trellis (vines grow 18-24" long). • Grow strong vining-types on trellis. • Needs good air circulation to minimize powdery mildew. • Young plants are very sensitive to wind burn.
Eggplant	8" deep 4-5 gal/plant	full sun	• One plant per container. • Needs night temperatures above 55^{o} for pollen development.
Peppers	8" deep 2-5 gal/plants	full sun	• One plant per container or space to 14"-18" in row. • Needs night temperatures above 55^{o} for pollen development. • Decorative, attractive plant with fruit.
Summer Squash (Zucchini)	36" by 36" space 8" deep	full sun	• Compact varieties more suited to container gardening. • Great in a whiskey barrel size container. • One plant will produce 6 or more fruit per week. • Has male and female blossoms. May need hand pollination. • Needs good air circulation to minimize powdery mildew. • Keep fruit picked for continued production.
Tomatoes	12" deep 2-5 gal/plant depending on variety (plant size)	full sun	• Varieties vary in mature plant size from determinate (bush) types to large, indeterminate vines over 6 feet tall. • Patio types (small vines) are great for container gardening and may be grown as hanging baskets or trellised. • Standard garden types require a larger container (like a whiskey barrel) and trellising. • Needs night temperatures above 55^{o} for pollen development. • Crowding cuts yields and increases disease potential. • Blossom end rot (black sunken area on bottom of fruit) is a symptom of inconsistent watering or a soil that does not have enough water storage.

* Larger container sizes will make crop easier to care for, providing a bigger supply of water and nutrients.

Cool Season Vegetables

Vegetable	Minimum Container Size*	Minimum Direct Sunlight Per Day	Remarks
Beets	8” deep	8 hours	• Best in cool temperatures, grow a spring and fall crop. • To give space for root development, thin greens to 3”. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce.
Broccoli Cabbage Cauliflower Kale Collards	10” deep 5 gal/plant	8 hours	• Best in fall production (plant mid July for fall harvest along the Colorado Front Range). • Minimum spacing per plant is 18” by 18”. • A consistent supply of water and nutrients promotes rapid growth and is essential for quality produce. • Heavy feeder, requiring frequent light fertilization. • Crops develop a strong flavor if the soil gets dry.
Carrots	8”-12” deep	8 hours	• Best in cool temperatures, grow a spring and fall crop. • Use short root varieties, like Short & Sweet or Scarlet Nantes. • Roots will crack and be strong flavored if the soil gets dry. • Thin early to 2”-3” apart. • Foliage is rather decorative.
Chard	8” deep	6 hours	• Space to 6+” between plants in a row. • Harvest outer leaves allowing plants to continue to grow. Makes an excellent “cut and grow again” crop. • Colored varieties are very decorative. • Responds to frequent light fertilization. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce.
Kohlrabi	8” deep	8 hours	• Best in cool temperatures, grow a spring and fall crop. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce. • Never allow soil to become dry. • Kohlrabi is a heavy feeder, requiring frequent, light fertilization.
Lettuce (leaf)	8” deep	6 hours	• Grow as a spring or fall crop; avoid hot summer temperatures. • Use softhead or leaf types. • As the young crop grows, thin to 9” spacing; crowding (competition for space, water and nutrients) reduces quality. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce. • Responds to frequent light fertilization. • Lettuce become strong flavored if the soil become dry, during hot weather, and with crowded plants

Vegetable	Minimum Container Size*	Minimum Direct Sunlight Per Day	Remarks
Onions (green)	6” deep	8 hours	• Onions require a consistent supply of water. Never allow soil to become dry. • Thin the crop by harvesting young plants. • Plant in early spring. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce.
Peas	8” deep	Full sun	• Not well suited to container gardening. • Best in cool temperatures, grow a spring and fall crop. • Use dwarf, edible-pod or snap types for salads and stir-fry. • May be grown in hanging baskets or trellised. • Needs good air circulation to avoid powdery mildew.
Radish	8” deep	8 hours	• Best in cool temperatures, grow a spring and fall crop. • A consistent supply of water and nutrients to promote rapid growth is essential for quality produce.
Spinach	8” deep	6 hours	• Best in cool temperatures, grow a spring and fall crop. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce.
Turnips	8” deep	8 hours	• Best in cool temperatures, grow a spring and fall crop. • When large enough to make greens, thin to 4” allowing roots to develop. • A consistent supply of water and nutrients promotes the rapid growth essential for quality produce.

* Larger container sizes will make crop easier to care for, providing a bigger supply of water and nutrients.

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