Vegetable Minigardens

University of Illinois at Urbana-Champaign
College of Agriculture • Cooperative Extension Service
Circular 1155
COVER: A container vegetable garden on a balcony. When space is severely limited, vegetables can be grown in various kinds of containers. Container vegetable gardens not only provide fresh harvest but can enhance the appearance of balconies, patios, terraces, etc.

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Contrary to popular belief, vegetable gardens do not require large plots of ground. Small gardens — "minigardens" — can be planted in conventional soil beds in confined areas, in raised beds alongside a fence, house, or sidewalk, or in various kinds of containers. If you have adequate space, however, a standard backyard garden is usually more convenient and practicable than a minigarden. (Circular 1150, "Vegetable Gardening for Illinois," deals in detail with the planning, planting, and care of the standard backyard garden.)

There are many good reasons for planting a vegetable minigarden. A minigarden requires only a small amount of space, and can be easily incorporated into the total landscape. Homegrown vegetables are fresher and are often of better quality than those from the grocery store, are readily available, and contribute to a balanced diet. A minigarden can also be an enjoyable hobby, and offers an opportunity to grow novelty varieties that are not well adapted to the standard backyard garden.

Conventional Soil-Bed Minigardens

Vegetables can be grown in conventional soil beds that range in size from small plantings around the doorway or patio to gardens measuring from 20 to 200 square feet. When space is limited, the border or background of flower gardens may be a good place to "tuck in" vegetables. The vegetable greens, tomatoes in cages, and trellised vegetables are well adapted for this purpose.

Plant vegetables with attractive leaves as border plants in the vegetable or flower garden. Lettuce, parsley, and herbs are especially suitable for the foreground, and Swiss chard, asparagus, and kale for the background. Display individual characteristics of vegetable plants by growing single specimens or planting in random groupings rather than in straight rows.

Raised Beds

Raised beds are constructed above the existing soil level. The simplest kind of raised bed is rectangular in form, with the soil supported by stone, brick, telephone poles, railroad ties, or 8- to 10-inch redwood or cypress boards reinforced at the corners. The length can be adjusted to the available space, and a 3-foot width is sufficient to accommodate two or three rows of the smaller vegetables such as lettuce, carrots, and beets. Water and fertilizer can be easily controlled in raised beds. Use high-quality soil to fill the forms above the existing soil level.
Conventional soil-bed minigarden. Vegetables can be grown in conventional soil beds located next to the house or garage or at other selected sites.

Vegetable-flower conventional soil beds. Blending vegetables and flowers adds beauty to the home landscape and fresh produce to the table.
Tiered beds make it possible to grow more vegetables than in a one-level bed of comparable size. This type of growing system is especially suitable for sloping sites.

Raised beds have several advantages over conventional soil-bed mini-gardens. They can be neat and attractive; they allow you to provide good soil and proper water drainage on a poor growing site; and they warm the soil sooner in the spring, permitting early planting.

Container Gardens

Vegetables grown in containers may be both decorative and provide a fresh harvest. Container gardens can be attractive pots of kitchen herbs or parsley, hanging baskets of ripe red tomatoes, and bright leaf lettuce or fresh radishes. Tubs, raised beds, shallow boxes, metal drums, sewer tiles, rubber tires, and other containers may also be used for gardening in areas where conventional soil beds or raised beds are not practicable.

You may also use more than one container for the same vegetable and plant at intervals. This technique will establish different growth stages for vegetables such as radishes that tend to mature their harvest at one time. All containers should have bottom holes for drainage. Place stones, crushed rock, or broken pot chips over the holes to prevent plugging and to insure free drainage of excess water.

Containers may be located almost anywhere — the kitchen, patio, terrace, balcony, rooftop, or at strategic locations around the yard. Regardless of location, the containers must have light, fertilizer, water, and fresh air.

Restricting the soil volume and root system of a vegetable plant limits the plant’s supply of fertility to that furnished within the container. Frequent watering is necessary to sustain this restricted root system. Trickle irrigation systems designed for the hobby gardener can supply water to container gardens.

Apply a water-soluble fertilizer (10-50-10, 20-20-20, 18-12-6, etc.) at rates of 1 tablespoon per 1 gallon of water once a week, or less often, as needed for plant growth. Slow-release-type fertilizers may also be used in containers. Do not use field-grade fertilizers. They cause excessive buildup of salts.

Modular arrangements of plant boxes can add effectively to the landscape decor in outdoor living areas. Containers with a 6-inch soil depth are suitable for green onions, radishes, most leaf lettuce varieties, swiss chard, parsley, and chives. An 8- to 10-inch depth should be used for larger vegetables.
Types of containers. Clay and plastic pots, concrete blocks, sewer tiles, bushel baskets, fluted tires, etc. can be used as containers for vegetable minigardens. All containers should have bottom holes for drainage.

Raised beds. Raised beds and tiered raised beds (above) can be used as landscape accents and to overcome deficiencies in the growing environment.
Cold frame. A cold frame can be used to start transplants early in the season and as an open growing space for vegetables during the remainder of the season.

Vegetables on a fence. Trailing or vining vegetables (pole beans, tomatoes, peas, cucumbers, melons, etc.) can be planted next to a fence, trellis, building, etc. It is often necessary to tie or fasten the plants to the supporting structure.
Planting and Culture

Vegetables can be started either from seeds or from transplants. Many kinds of vegetables do not transplant readily, and must be started from seeds.

Buy transplants whenever possible to reduce the time from planting to harvest. Be sure to get healthy, good-quality transplants. You can grow your own plants if you have adequate facilities, but specialized techniques are required. (See Circulars 884 and 1150 for detailed instructions about how to grow transplants.) Avoid overcrowding, particularly with seeded vegetables, and thin when necessary to achieve vigorous growth.

Adding high-quality soil, organic materials, and fertilizer to minigardens will help correct poor soil drainage, low fertility, and inadequate water-holding capacity. Several lightweight growing materials such as peat, perlite, vermiculite, and prepared commercial mixtures are also available. These usually contain fertilizer, and offer excellent water-holding capacity.

Vegetables in containers need frequent, thorough waterings, especially in windy or exposed locations. Do not allow the soil to dry out completely between waterings. Do not overwater. Overwatering will reduce the growth of vegetables planted in heavy soil or poorly drained containers.

Vegetables require full sunlight for proper growth, although leafy vegetables (lettuce, swiss chard, etc.) can be grown satisfactorily in partial— but not full—shade. Train or arrange plants vertically to take advantage of restricted areas. Stakes, trellises, and fences can be used to support crops such as tomatoes or cucumbers (see Circulars 981 and 1150).

Insects, diseases, and weeds can severely reduce yields and create unsightly areas in your garden. These can be controlled by cultivation and proper use of a suggested pesticide (see the list of references on page 11).

Suggested Varieties

All vegetables, or even varieties of the same vegetable, are not equally suitable for minigardens. Vegetables that will grow in a limited space and produce a continuous growth and yield, such as tomatoes, lettuce, pepper, parsley, cucumbers, or swiss chard, are good choices.

The varieties listed on pages 9 and 10 are especially suitable for vegetable minigardens. Those varieties marked with an asterisk (*) may also be grown in containers. Characteristics that are important in selecting varieties for containers are compact, bush, or dwarf growing habits; colorful foliage or fruits; and varieties that will supplement your other garden harvests or local supply.
Varieties for Minigardens

Asparagus
Mary Washington

Bean, snap and wax
Blue Lake (snap, bush and pole)
Kinghorn Wax (bush)
Resistant Cherokee Wax (bush)
Tender Crop (snap, bush)

Bean, horticultural
French Horticultural (bush)

Beet
Detroit Dark Red
Golden Beet
Ruby Queen

Broccoli
Green Comet
Premium Crop

Brussels Sprout
Jade Cross

Cabbage
Early Jersey Wakefield
Market Prize
Red Head
Resistant Golden Acre
Savoy King

Carrot
Danvers Half-long
Finger Carrot (several varieties)
Nantes Coreless

Cauliflower
Snow Crown
Snow King

Chard
Lucullus*
Rhubarb*

Chinese Cabbage
Burpee Hybrid
Michili

Cucumber
Burpless Hybrid (trellis, slicing)*
Bush Whopper (dwarf, slicing)*
Challenger Hybrid (slicing)*
Patio Pik Hybrid (dwarf, pickling)*
Poinsett (slicing)*

Eggplant
Black Magic
Burpee Hybrid
Ichiban*
Slim Jim*

Endive
Green Curled
Salad King

Escarole
Broad Leaved Batavian
Florida Deep Heart

Kale
Dwarf Curled (Vates)
Dwarf Siberian

Kohlrabi
Early White Vienna

Leek
American Flag*

Lettuce
Bibb*
Buttercrunch*
Grand Rapids*
Prizehead*
Ruby*
Salad Bowl*
Slobolt*

Muskmelon
Short and Sweet
Sugar Bush

Okra
Clemson Spineless

* May be grown in containers.
Varieties for Minigardens

Onion, green
Evergreen Long White Bunching
Onion, transplants
Sweet Spanish

Parsley
Triple Curled*
Italian*

Pepper
Bell Boy*
California Wonder
Gold Spike*
Sweet Banana*
Yolo Wonder

Pea
Edible Potted (sugar pea, trellis)
Little Marvel
Wando

Pumpkin
Cinderella (bush)
Spirit (semivining)

Radish
All Seasons
Champion
Comet
Icicle
Red Prince

Rhubarb
Mac Donald
Valentine
Victoria

Squash, Summer
Scallopini*
Zucchini*

Squash, Winter
Table King (bush)

Tomato, standard-sized fruits and plants
Better Boy
Big Girl
Bragger
Burpee VF

Floramerica*
Jet Star
Sunripe*
Super Fantastic
Supersonic

Tomato, small fruits and standard-sized plants
Gardeners’ Delight*
Sugar Lump*
Sweet 100*

Tomato, small fruits and dwarf plants
Patio*
Pixie*
Salad Top*
Small Fry*
Tiny Tim*
Toy Boy*
Tumblin Tom*

Turnip
Purple Top White Globe
Tokyo

Minor Vegetables
Gourds (trellis)
Husk Tomato
Shallot
Spaghetti Squash (trellis)
Sunflower

Herbs
Anise*
Basil*
Chive*
Dill*
Garlic*
Mint (grown in containers only)*
Parsley*
Rosemary*
Sage*
Summer Savory*
Sweet Marjoram*
Thyme*

* May be grown in containers.
For Further Reference

The following publications contain additional information that may be helpful in growing your vegetable minigarden. These publications may be obtained from your county extension adviser or by writing to the addresses listed below. They are free unless otherwise indicated.

Office of Agricultural Publications, 123 Mumford Hall, Urbana, Illinois 61801:

Controlling Weeds in the Home Garden, Circular 1051. 12 pages.
Growing Tomatoes at Home, Circular 981. 12 pages.
Growing Vegetable Transplants, Circular 884. 32 pages.
Landscaping Your Home, Circular 1111. 250 pages ($4.00).
Vegetable Gardening for Illinois, Circular 1150. 136 pages ($2.00).

Department of Plant Pathology, 218 Mumford Hall, Urbana, Illinois 61801:


Department of Agricultural Engineering, 202 Agricultural Engineering Building, Urbana, Illinois 61801:

Outdoor Living — Planning and Construction Guide, MWPS-12. (Contains information about materials and construction of modular containers.) 52 pages ($2.00).