

Gardening with Limited Space

Brandy Brabham – WVU Extension Agent, Roane County; Jodi Richmond – WVU Extension Agent, Mercer County

Many people do not have a large area to grow a traditional vegetable garden. However, even those who live in a small apartment or those who share outdoor space can grow vegetables, flowers and herbs in window boxes, small planters or hanging baskets.

Planning

The first step in successful gardening is developing a plan. Determine what you are interested in growing. Would you like edible plants, striking foliage or vibrant flowers? What spaces are available to plant in (small patio, window sills, porch lattice, etc.)? How much sunlight is available? A water source is also very important, because container plantings usually require more frequent watering or irrigation. If limited mobility is a problem, see WVU Extension’s factsheet “*Adaptive Gardening*” for more help with planning.

Other Considerations

Raised beds, table planters and vertical gardens can provide opportunities for those with limited space (or limited mobility) to enjoy the benefits of gardening. Sunlight and the available space are two important considerations for success. Vegetables typically need at least eight hours of quality sunlight daily, and all plants need enough root space for the mature plant. For vegetable plantings, the chart to the right can help determine how much space is needed. For all limited-space plantings, see the chart on the next page to determine what methods will work.

Many herbs, fruits and vegetables provide attractive foliage in addition to an edible crop. When selecting plants for the garden, consider the mature size of the plant. Sufficient soil depth, adequate nutrient levels and good soil drainage are needed for plant growth. Some crops can be planted directly from seed, but others grow best as transplants. WVU provides free soil testing to determine nutrient levels. For more information about soil drainage, soil testing and when to plant, consult your county WVU Extension Service agent or the WVU Extension Garden Calendar. For more information on spacing requirements, see WVU Extension factsheet “*Container Gardening*”.

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<i>Plant Spacing</i>	
Crop	Minimum spacing between plants (inches)
<i>Spring/Fall</i>	
Beets	3
Broccoli	8
Brussels Sprouts	12
Cabbage	12
Carrots	2
Cauliflower	14
Celery	6
Chard (Swiss)	4
Greens	1/8
Kale	8
Lettuce (head)	6
Lettuce (leaf)	1/8
Onions (bulb)	4
Onions (green)	1
Peas	3
Potatoes	6
Radish	1
Spinach	2
Turnip	2
<i>Summer</i>	
Beans (lima)	3
Beans (bush)	2
Cucumber	8
Eggplant	18
Flowers	6
Muskmelon	12
Peppers	12
Squash (summer)	12
Sweet Potato	9
Tomato (dwarf)	8
Tomato (small vine)	12
Watermelon	24

Spacing chart developed by Lewis Jett, Commercial Horticulture Specialist, WVU Extension Service

Methods of Adaptive Gardening	Suitable Containers/ Equipment	Special Considerations	Plant Suggestions
Container gardening – using containers to grow plants instead of planting directly in the ground	<ul style="list-style-type: none"> Flower pots Hanging baskets Window boxes Repurposed items (i.e. barrels or wash tubs) 	<ul style="list-style-type: none"> Size of container Lightweight potting mix Drainage holes Suitable plants 	<ul style="list-style-type: none"> Herbs Indoor or outdoor flowers Most vegetables (dwarf varieties may be available)
Vertical gardening – using vertical space as a growing system for plants	<ul style="list-style-type: none"> Vertical planters Lattice Hanging baskets/bags Trellises 	<ul style="list-style-type: none"> Size of container Lightweight potting mix Suitable plants Stability of overhead structures Weight of full containers 	<ul style="list-style-type: none"> Strawberries and melons Tomatoes Others such as: cucumbers, zucchini, peas and beans Morning glory, roses and clematis
Gardening with adaptive tools – using tools or adaptive aids that have been modified for people with special needs to lessen the physical or mental demands of gardening	Modified tools, such as: <ul style="list-style-type: none"> Trowels, hoes and forks Waterwands Lightweight chairs and stools Carts Bright colored tools 	<ul style="list-style-type: none"> Larger space needed Costs to purchase equipment Skills needed to modify tools Convenience of location 	<ul style="list-style-type: none"> Most vegetables, flower or landscape plants (consider the mature/harvest height of the plant)
Raised bed gardening – using any garden bed in which more soil has been added to raise the garden surface, usually supported by sidewalls and materials	<ul style="list-style-type: none"> Well-drained soil Rot-resistant lumber, masonry blocks, bricks or rock layers used to support the sides of the bed Drainage material (gravel, sand, drainage tile) for beds 18 inches or deeper 	<ul style="list-style-type: none"> Cost of material Soil is more easily warmed Beds less than six inches tall need no support Temporary or permanent structures can be utilized 	<ul style="list-style-type: none"> Many vegetable crops work well Interplantings of lettuce and onions, carrots and beets Tomatoes Peppers Strawberries
Table top gardening – using a gardening area that is on a raised surface at lap or chest level	<ul style="list-style-type: none"> Naturally water-resistant wood (such as redwood or cedar) Synthetic lumber (such as recycled plastic) Repurposed items (work, garden benches or sinks) Synthetic or wood surface table tops 	<ul style="list-style-type: none"> Lightweight potting mix Drainage hole location Naturally rot-resistant wood (cedar or redwood) is recommended Chemically preserved wood that is pressure treated with a copper-containing product (i.e. ACQ) is acceptable for home gardens, but is not approved for organic gardening <p>Do not use wood treated with creosote or pentachlorophenol (Penta).</p>	<p>Low-growing plants:</p> <ul style="list-style-type: none"> Lettuce Carrots Beets Onions Strawberries Dwarf varieties of peppers, tomatoes, etc.
Straw bale gardening* – using straw bales as a growing medium rather than soil *For more information on straw bale gardening, see WVU Extension factsheet, “ <i>Straw Bale Gardening</i> ”	<ul style="list-style-type: none"> Straw bales (or hay bales with mulch and irrigation to combat weeds) Fertilizer Nitrogen source (blood meal, bone meal or fish emulsion are organic sources) to condition the bales Water to soak fertilizer into bale Soaker hose 	<ul style="list-style-type: none"> Location – bales become too heavy to move after watering Transplants needed if planted directly into bale Soil or compost needed if planting seeds directly into bale Taller plants should be on the north end Weed barriers, like landscaping cloth, help control weeds around work areas located directly on sod, slowing down the deterioration of the twine as well. 	<ul style="list-style-type: none"> Tomatoes (2-3 plants per bale) Peppers (4 plants per bale) Cucumbers (4-6 plants per bale) Squash (2-4 plants per bale) Pumpkins (2 plants per bale) Zucchini (2-3 plants per bale)

