

# Building Raised Bed Gardens

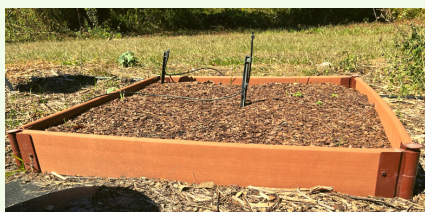
## Why Build Raised Bed Gardens?

- Aesthetically pleasing
- Can mitigate poor soil (or no soil!)
- Decreases runoff and erosion
- Prevents soil compaction and improves drainage
- Higher yields
- Ease of adding overhead frames (for shade cloth, frost protection, insect and wildlife exclusion, etc.)
- Fewer nematode problems



## Raised Bed Garden Materials

Lumber is the most popular material for raised beds, but concrete blocks, bricks, stone, tiles, logs, recycled plastic, galvanized steel, wire, or anything else that can hold the soil in place can be used.



## Raised Bed Garden Location



- Fruiting crops need at least 6 to 8 hours of full sun, while many leafy vegetables can tolerate 5 to 6 hours of full sun.
- Morning sun is ideal and crops can benefit from late afternoon shade in late spring and throughout the summer.
- Build the raised bed close to a water source to irrigate easily.
- Build the raised bed far enough away from impeding tree canopy and tree roots.
- Row orientation (north/south vs. east/west) is less important than the contour of the land. Level ground is ideal, but if there is a slope, it is better to position the bed lengthwise along the slope rather than running it down the slope to minimize erosion.

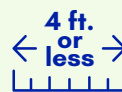
## QUICK TIPS

To hold raised beds made of lumber together, corner stones are more expensive than lag bolts or screws, but require no tools for assembly and lumber can easily be removed from the corner stones and replaced.



## Raised Bed Garden Size

Never step into a raised bed, as this compacts the soil, which can lead to poor root growth. **For this reason, the width of a raised bed should not exceed 4 ft.** (But the length can be as long as you like!)



Most roots of veggies and herbs are in the top 6 to 8 in. of soil, so the bed height should be at least 8 in. If the site has poor drainage or stubborn weeds, consider a raised bed height of 10 to 12 in.



## Gardening Questions?

Call or email the Leon County Extension Office:  
(850) 606-5200  
LeonMG@ifas.ufl.edu

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## Raised Bed Garden Soil

Many landscape and nursery companies offer vegetable garden soil mixes for purchase in bulk. Typically, they sell mixes that contain various amounts of composted manures, mushroom compost, and top soil. If you are filling a 4'x8'x10" raised bed, you will need about 1 cubic yard of soil, which typically costs \$50 to \$60, but prices vary. This is about the volume of the back of a standard pick-up truck. Alternatively, most companies will deliver in bulk for a fee. This can be worth it if you are filling up multiple beds! Seasonally, you will need to top off your raised bed as organic materials decompose. Top the beds off with bagged compost or make your own compost.



## Square Foot Gardening

Instead of following spacing recommendations by rows, square foot garden spacing utilizes raised beds more efficiently. For instance, an 8'x4' raised bed consists of 32 ft<sup>2</sup>, which can be planted based on the space requirements for each individual plant. Although spacing for specific crop varieties can vary, here are general square foot gardening recommendations per plant:

- **1 per 4 ft<sup>2</sup>:** summer squash, zucchini
- **1 per 2 ft<sup>2</sup>:** broccoli, tomatoes, winter squash
- **1 per 1 ft<sup>2</sup>:** basil, bok choy, cucumbers, collards, eggplant, kale, okra, peppers, potatoes
- **4 per 1 ft<sup>2</sup>:** garlic, kohlrabi, leaf lettuce, mustards, bulbing onions
- **8-9 per 1 ft<sup>2</sup>:** beans, turnips, peas
- **16 per 1 ft<sup>2</sup>:** arugula, carrots, radishes, bunching onions



Plants should be spaced based on their size at maturity.



## Raised Bed Garden Trellises

Trellises and cages built on the ends or sides of raised beds can support crops and have many benefits. They prevent sensitive fruit from rotting on the soil, improve air flow to help prevent disease, and provide vertical grow space. Trellises typically need at least two vertical supports, such as metal or wooden poles, and netting, mesh, or wire suspended in between them to support climbing plants. Materials may include re-bar, bamboo stakes, chicken wire, plastic netting, or galvanized fencing.



Before 2004, lumber was treated with arsenic and was not suitable for raised bed gardens. Now it is treated with copper compounds, known as "ACQ" treated lumber, and is approved by the Food and Drug Administration and the U.S. Environmental Protection Agency for food production and garden use. Whether using treated or untreated lumber, the wood will rot eventually and need to be replaced. Use a dust mask when cutting treated lumber and dispose of old treated lumber in the landfill.

## Raised Bed Garden Irrigation

Consistent watering is key to success in the vegetable garden. Water when the top half-inch of soil is dry to prevent wilting. The best irrigation methods are those that target the root zone and minimize wetting plant leaves, as this can encourage disease. Drip tubing, soaker hoses, and micro-sprinklers that spray close to the soil are ideal, but require periodic maintenance. If hand-watering, a water wand or adjustable nozzle can help target water to the soil. Irrigate young plants more often but with less water, and irrigate established plants less often but with more water.



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