

## **Gardening in Raised Beds**

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Gardening in raised beds is becoming more popular as folks try their hand at growing their own food. Using raised beds is like growing plants in a large container.

There are many advantages to raised beds. Traditional gardening takes a toll on knees and backs whereas gardening in raised beds helps save the joints. Many gardeners cannot grow vegetables in traditional gardens because soils are poor, too wet, compacted, or plagued with nematodes. Raised beds allow you to control the soil media to avoid these issues. Another plus is that soils above ground will heat up more quickly so you can get a jump on the spring gardening season. Also, raised beds are typically more productive than in-the-ground vegetable gardens because the soil is better and there is no wasted space for walkways between rows.

**Getting Started:** Select a location that receives at least six to eight hours of direct sun and is close to a water source. Find a level area for the raised bed or one where minor modifications will make it level. If the area has turf, remove the top layer.

Next, determine the size and height of the raised bed. It should be no wider than four feet because most people can only comfortably reach two feet to the center. The length varies and will depend on the site. A common size is four foot wide by eight feet long by 16 to 24 inches deep. The height really depends on the level that is most comfortable for you and the investment you want to make in materials. The site may lend itself to multiple beds but make sure to give yourself ample room between beds - about 18" to 24". Beds can be various shapes: square, rectangles, L-shape, triangle, etc. Raised beds can be basic or they can be very elaborate and esthetically pleasing in the landscape.

**Materials:** There are many options for building materials which include stone, bricks, concrete blocks, synthetic/recycled materials, or wood. The most common material is wood which is relatively inexpensive but untreated lumber will start to rot within a year. For longevity and cost effectiveness, use ACQ Ground Contact treated lumber which is treated with new copper preservatives, approved by FDA for food contact and growing. Cedar, redwood, and synthetic wood are also good choices because they are durable but are more expensive than ACQ treated lumber. Avoid using railroad ties for edibles or old pressure treated lumber purchased prior to 2004 due to creosote and arsenic issues.

The dimensions are up to the individual as lumber is available in an assortment of sizes. As an example, most back yards can accommodate a raised bed that measures 4' by 8'. For a basic design, let's use 2 x 8 (actual 1 1/2" by 7 1/4") x 8' long ACQ treated lumber. In order to build a bed that is 4' wide by 8' long and 21 3/4" high purchase nine 2 x 8 x 8' long ACQ treated lumber and two 4 x 4 x 6' long ACQ treated posts that can be cut into six 21.75" posts (one for each corner and one in the middle along the long sides). Purchase ninety 3" long deck screws. Stainless steel screws are preferred when using ACQ treated lumber. However, if you are on a limited budget, look for screws with a coated finish guaranteed not to corrode when used with ACQ treated lumber.

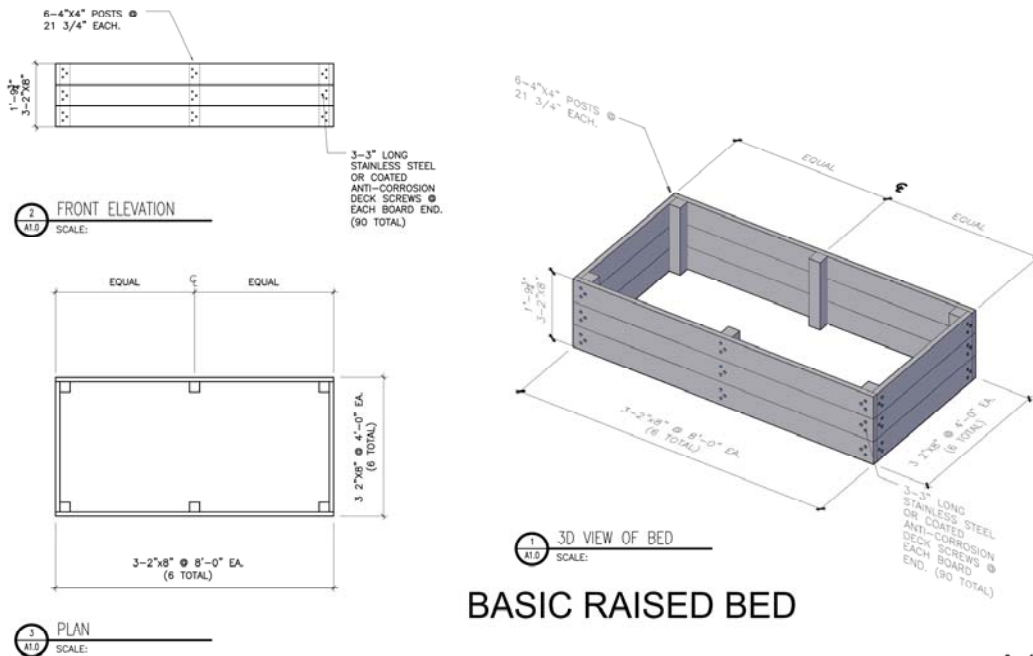
Selection of a good lightweight soil rich in organic matter is important. There are premade mixes that can be purchased by the cubic yard or bagged. Or you can make your own using one or more of these components: well-rotted compost, small pieces of pine bark, composted manures, peat moss, perlite, and vermiculite. To determine cubic yards, multiply length by width by height to get cubic feet and divide by 27 cubic feet to determine cubic yards. For this example: 8' X 4' X 1.81 divided by 27 = 2.15 cubic yards.

**Supplies needed for 4' x 8' by 21.75" high raised bed:**

- Nine (9) 2 x 8 x 8' long ACQ treated lumber
- Two (2) 4 x 4 x 6' long ACQ treated posts
- 90 (ninety) 3" long SS or coated deck screws for ACQ treated lumber
- 2.15 cubic yards of lightweight

**Construction:** Cut the 6' foot length posts into six pieces measuring 21 3/4" to secure the inside corners of the bed and the middle along the long sides or anchor with metal corner brackets screwed to the inside. (Another option is to cut them 24" long and drive the additional 2 1/4" into the ground to anchor the bed.) Cut three of the 2 x 8 x 8' long pieces of lumber in half (4' long) for the ends. .

Move all the materials to the site and level if needed. First attach the 4' long boards to the post and then add the 8' long boards using three screws for each connection.



**BASIC RAISED BED**

A1.0

Alter the placement of the screws that occur at right angles so they don't hit one another when going into the post. There will be three boards stacked on each side of the bed with a total height of 21 3/4." Make sure the 6 posts are even so soil may need to be added or

removed to level. If beds are made longer, additional supports will be needed to keep the boards from buckling.

If weeds were formerly a problem on the site, consider adding four or five layers of newspaper or cardboard before adding the soil. Moisten the newspaper/cardboard before putting the soil in place. Install the soil to the very top of the bed. This may seem high but once it settles, the soil may drop by about two inches.

Irrigation will be critical to success. Install low volume irrigation by using soaker hoses, micro-spray jets, or drip tubing to conserve and keep water off the plant leaves.

**Planting & Maintenance:** Mix a fertilizer into the top six inches of the soil. A 6-6-6, 10-10-10 or a balanced, slow-release vegetable fertilizer is suitable. The amount is based on the analysis and can be found on the fertilizer label. Now you are ready to plant. Follow the guidelines in the Florida Vegetable Gardening Guide at <http://edis.ifas.ufl.edu/vh021> for plant spacing and recommended varieties. When gardening in raised beds, try planting in blocks instead of rows. Eliminate the space for rows because that area is not needed to work the garden. Now the entire garden is an intensive production area. When the garden is replanted each growing season, add organic matter to enrich and bring up the level of the soil.

Whether you try gardening in raised beds or growing in traditional vegetable gardens, enjoy the rewards of a convenient, fresh and nutritious food supply.

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