

## How to Make a Raised-Bed Garden

- 1. The layout.** Select a site that's sunny at least three quarters of the day and preferably all day. If necessary, cut back limbs on nearby trees for added light. It is important to locate both beds and plants so that all the plants in your garden receive as much sunlight throughout the day as possible. Plants easily shade one another if the garden is not laid out correctly.

Determine where the north/south axis of the garden site is and face the beds either exactly north/south or east/west, not on a diagonal. The length of the trellis bed, which will have vine crops like pumpkins, squash, beans and grapes on it, should run east/west.

In addition, the trellis bed should be located at the northern end of the garden. Tall plants like tomatillos should be in beds positioned just south of the trellis bed. Short crops belong at the southern end of the vegetable garden.

Stake out the beds with garden twine to establish the outer dimensions of the beds and the paths between them. Six weeks before planting smother existing grass by laying down black plastic inside each bed.

If you don't have that much time, remove the sod by hand or rent a sod remover. Then loosen the soil by digging or tilling to a depth of six inches.

- 2. Building beds.** Tools most helpful in building a raised-bed garden include a measuring tape, a large square and a level. A large-diameter circular power saw, available through rental centers, is particularly handy to make clean, accurate cuts. Use untreated, unpainted hardwood planks (locust or oak) for your beds.

**Do NOT use pressure-treated wood or railroad ties for your raised-bed garden frame!**

**Do NOT use wood containing copper sulfate, creosote, cuprinol, or compounds containing penta chlorophenol, which can be toxic to plants.**

**Be safe.** Use goggles and a dust mask while cutting the wood. Wear gloves when handling power tools and wood.

- 3. Preparing the soil.** Because good soil is essential to successful gardening, don't guess at how to improve it. Instead, have your soil tested. Buy a soil analysis kit (\$10-\$12) from your county Extension office or from your county soil and water

conservation district office. Then mail your soil sample to the laboratory (addressed on the kit) for analysis.

The results generally take about a month to receive. The results will tell you the organic matter in your soil, its nutrient content and pH. It will also give details of what is needed to improve the soil.

For water to drain well and root crops to grow straight, soil should be loose and porous. Dig the soil to a depth of about one-foot to loosen it and remove rocks and roots. Then add better topsoil and, if necessary, peat moss, well-rotted horse manure, decomposed grass clippings, leaves and/or compost.

- 4. Low maintenance paths.** Mulch paths between the beds to keep them weed free. First lay down black plastic to smother grass and weeds. Because the plastic will rip, cover it with fabric weed mats, which are very durable and will prevent weeds from penetrating. Most plastic and fabric mats come in 4-foot widths. To keep them from curling up tuck them securely under the hardwood planks. This will make the paths measure about 2 ½ feet wide.

5. **Easy watering.** Because overhead watering systems spray water directly onto plant foliage, insects and diseases can be spread fairly easily. They also waste 50 percent more water from evaporation and runoff than underground watering systems. Under-ground drip systems avoid these problems. A good underground watering system works through capillary action, whereby thousands of pores in the hose (made from recycled automobile tires) slowly emit water into the soil. It keeps the garden green during a drought.
6. **To learn more.** The following list of books is recommended for learning more about raised-bed gardening.
- **60-Minute Garden** by Jeff Ball, MacMillan. A great book to explain how to build raised beds and other structures.
  - **The Weekend Garden Guide** by Susan A. Roth, Rodale Press. An excellent all-round gardening book that clearly explains basics of gardening and timesaving ways to garden more efficiently.
  - **The New Victory Garden** by Bob Thomson, Little, Brown and Company. An invaluable vegetable gardening book explaining what to do from March to October.

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## Raised Beds

Raised beds are basically unmovable, bottomless boxes. The vertical 4 x 4" supports extend downward into the ground. Raised beds can be made from naturally rot-resistant lumber such as redwood, or big wooden barrels, brick, or stonework. Even tires stacked up and bolted together can be used.

An important plus of gardening in raised beds is that you can construct a raised bed so that you can work in a standing or sitting position. An important *minus* is that if you are seated, you will have to work sideways, which may not be very comfortable.

Make sure that the raised bed is small enough so that you can reach all the corners. If you work from only one side, you probably don't want to make the bed wider than about 30 inches. Double the width if you work from both sides. Measure your reach by sitting parallel to a table (*not* with your

legs underneath) and measure how far you can reach to the center of the table. And think carefully about whether you would be comfortable working in this position.

If you will be gardening while standing, but have trouble bending over, a raised bed at comfortable working height may be just right for you.

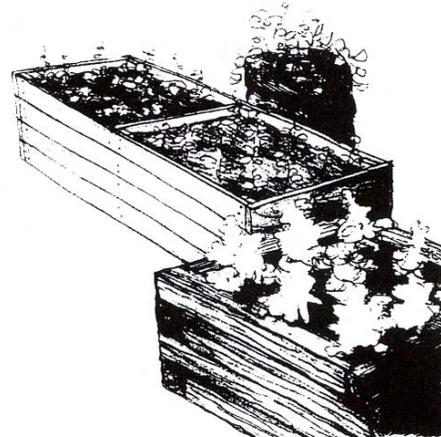
Some experts feel that "thin"-walled raised beds are best – those made of 2" thick lumber because they are easier to fasten together. You will, though, have to reinforce thin-walled

raised beds with a cable-and-turnbuckle system across the center because the weight of the soil will put a lot of outward pressure on the bed's walls.

Raised beds need less watering than containers do because of their larger soil volume. Use gardening labor saving tricks. Use mulch as much as you can. Set up a watering system so you don't have to carry water to the plants.

Arrange a convenient place to store your tools nearby. Provide a shady resting-place for yourself.

Remember, you can get lots of gardening advice from your Cooperative Extension office or local nursery.



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