

How to Build a Raised Bed



Twelve 8-foot 4" x 4" timbers are needed to assemble a 4-layer, 4 ft. x 8 ft. raised bed. The lumber will be stacked and each layer will overlap the layer below it at the corners. Here are the four different measurements to prepare.:

- 1) First, trim all timbers to the maximum possible common length, as they may not all be exactly 8 ft. Set aside four boards. These will be used for the sides of layers 1 and 3.
- 2) Measure the width of a timber (as it may not be exactly 4 inches). Double this width and subtract from the length of the timbers cut in step 1. This will be the length to cut the four timbers used for the sides of layers 2 and 4.
- 3) The end pieces of layers 2 and 4 are made by cutting two timbers in half.
- 4) Subtract the doubled timber width from the length of the end pieces of layers 2 and 4. This will be the length to cut the two boards used for the ends of layers 1 and 3.

**Note: A simpler option is to cut all the timbers to the maximum possible common length, then cut four timbers in half for the ends and follow the stacking process as outlined below. The bed will end up slightly larger than 4ft. X 8ft.*



The first layer is the most important as all other layers are built on it. The raised bed box will be sturdiest if the first layer is dug into the ground. Use a square and level to ensure that the first layer is as square as possible.



If the area under the raised bed is grass, the sod can be stripped and composted. If the soil underneath the raised bed is determined by a soil test to have contaminants and/or heavy metals, a layer of landscape fabric can be put under the bed as a semi-permeable barrier that excess water in the bed can seep through. When constructing the frame, each layer is nailed to the layer below it with 6" long 60d galvanized timber ties, spaced every 16 inches. The final step is to fill the raised beds with a topsoil/compost mix. The beds shown below are 16 feet, 12 feet, and 8 feet long.



Vermont Community Garden Network

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For 1, 4 ft. wide x 8 ft. long x 1 foot high Raised Bed

Materials

Item or Service	# Needed	Unit Sold	Cost/Unit	Total Cost
4 in. x 4 in. x 8 ft. Hemlock lumber	12	Board	\$6/board (based on P&P Lumber)	\$72
6 in. long 60d galvanized timber ties	60	50 piece box or Individually	\$30/box or \$0.90/tie (based on ACE Hardware)	\$39
Topsoil/Compost Mix	39 cubic ft. or 1.43 cubic yd.	Cubic yards (whole units)	\$25/1-5 cubic yards (based on Highfields Center for Composting)	\$40
Landscape fabric	—————	3 ft. w x 36 ft. l Roll (Recycled Plastic Weed-block)	\$21.95/roll (based on Gardener's Supply Co.)	\$22
Estimated Total				\$173

Supplies

- Circular saw & accompanying safety equipment
- Square (tool)
- Level
- Measuring tape
- Pencil
- Shovels
- Hammer
- Scissors
- Wheelbarrow or buckets

Notes:

The instructions we've provided are just one way to build a raised garden bed. Many other designs have proven successful. If 4 in. x 4 in. timbers are hard to come by, try using 2 in. x 8 in. boards or other sizes that may lower your cost. If you are using thinner boards you can use long screws rather than timber ties, which can be less expensive.

Depending on your gardeners' needs, you may also want to consider a shorter or higher raised bed design.

In terms of wood used, hemlock is often used in New England for its longevity, decent price, and availability. Cedar and wood/plastic composite are also options, but can be prohibitively expensive. Most importantly, do not use pressure treated wood if you are using the beds for food gardens.