Building Raised Bed Boxes

2021

TITLE: Building Raised Bed Boxes

Description: Many gardeners want to grow their vegetable in raised beds to compensate for poor soil. Some ornamental gardeners do the same thing.

Objective(s): Learn the factors that limit the size of a raised bed box. Learn a few "tricks" to quickly make multiple raised beds that are the right size for your growing purposes.

WHAT: Raised beds are simply boxes (most often made of wood) that are filled with good gardening soil – and sit on top of the native soil. The most common dimensions are 4' wide x 8' long. A 4' wide box will require you to reach 2' to get to the middle. Do NOT make them wider than 4', as you NEVER want to step into a raised garden bed. (If the box will be near a wall or fence such that one side is obstructed, make it no more than 2' wide.) Boxes that are longer than 8' often require additional side support, as the pressure from the garden soil may cause the sides to bow. Recommended minimum depth is 8"; you can build a deeper box, but there is no need to build a box that is deeper than 12".

WHY: Raised beds are great for growing small plots of veggies and flowers. They keep pathway weeds from your garden soil, prevent soil compaction, provide good drainage, and serve as a barrier to pests such as slugs and snails. Raised beds are also ideal for square foot gardening. Raised beds warm up more quickly in the spring and drain better (assuming the soil is properly prepared).

WHEN: You can build a raised bed box any time of year.

WHERE: It is best to do the construction outdoors (in good weather) or in a sheltered location, like a garage, when the weather is inclement.

HOW: Watch the video that accompanies this handout to learn the step-by-step process of building a raised bed box out of pressure treated lumber. Use lag bolts with washers, or deck screws to assemble the boxes. Just be sure that the screw length is at least 3". A screw length of 3 ½" inches is preferred. Watch how to get the corners truly square, so that when you set a row of the boxes in your garden, you truly have a straight line, and good visual appeal.

SUMMARY OF IMPORTANT POINTS:

- Wood is the most common material used to make raised bed boxes. Other materials include concrete block, stacked stone, corrugated metal.
- Pressure treated lumber is now safe to use, as they no longer use arsenic to treat the wood.
- Untreated white oak, cedar, locust will last a long time, but is more expensive
- If you purchase 8' long lumber, you need three boards to make one 4' x 8' raised bed box.
- Recommend purchasing 2" (thick) x 8" (wide) x 8' (long) lumber. You can go wider if you want or have a specific need for a deeper bed. No need to have a box deeper than 12".
- Recommend lag bolts or deck screws that are at least 3" long (3 ½" preferred)
- Take the time to get the corners square
    - There are other techniques, like using a piece of 4" x 4" post in each corner. While this is common, it increases the cost, and reduced the actual gardening space.
    - Have some helpers. If one person can build six boxes with square corners in four hours (from setup to clean up), imagine what a team of 3-4 people can build.
- Do not use old railroad ties, as they were treated with creosote and may still be toxic

Additional Resources / References:

The Tennessee Vegetable Garden: Building and Using Raised Beds, University of TN, https://extension.tennessee.edu/publications/Documents/W346-E.pdf

Raised Bed Gardens, University of Minnesota Extension, https://extension.umn.edu/planting-and-growing-guides/raised-bed-gardens

Raised Bed Gardening, University of West Virginia Extension, https://extension.wvu.edu/lawn-gardening-pests/gardening/creative-gardening/raised-bed-gardening

Raised Bed Gardening, Oregon State Extension https://catalog.extension.oregonstate.edu/fs270/html

Materials for Building Raised Beds, University of Maryland https://extension.umd.edu/hgic/topics/materials-building-raised-beds

Knox County Master Gardeners website: www.knoxcountymastergardener.org
Knox County Master Gardeners Facebook page: https://www.facebook.com/KnoxCountyMG
Ask-a-Master Gardener / Knox County Extension Helpline: (865) 215-2340
