

Garden for the Environment

Dig In! – Raised Bed Construction

Raised Bed Basics

- Why do we want to build raised beds?
 - Raised beds are most commonly used when the soil at your site is or could be contaminated, and you want to grow veggies in soil that you know is safe
 - Raised beds can also help make gardening easier by raising the soil level so that gardeners don't have to bend over as much
 - Raised beds can make it easy to have deep, soft soil and not have to worry about hard rocky layers underground
- Location
 - Vegetables almost always require a lot sun, so choose the sunniest part of your yard to build the raised bed
- Drainage
 - If your bed is on soil, drainage won't be much of a problem, but make sure you know where the water will flow on less permeable surfaces like concrete
 - If building on concrete, make sure there is a gap or drill small holes in the bottom layer of the bed to let excess water flow out
- Size and shape
 - Height: tall enough to give roots enough space to grow (at least 12-18", 18-24" if building on concrete) and so that it's comfortable for you to work on
 - Width: Beds should be no more 3 feet wide so that you can comfortably reach the center of the bed
 - Design: the bed we'll be making today will be 3' x 6' and 18" tall
- Materials
 - Untreated redwood is long-lasting and does not have any risk of leaching treatment chemicals, it's a natural material and is slightly more porous than other materials, allowing air and water in and out
 - Urbanite and metal can also work, but be aware of potential for chemicals from concrete or metal to leach into the soil
- Shopping list for a 3' by 6' GFE bed
 - Six 72" long 2 x 6 untreated redwood boards
 - Six 32" long 2 x 6 untreated redwood boards
 - Four 24" long 4 x 4 untreated redwood posts
 - Two 18" long 2 x 4 untreated redwood boards
 - 52 three inch screws
 - Staple gun staples
 - At least 14' of 2' wide galvanized hardware cloth (gopher wire) – not chicken wire – or at least 7' of 4' wide hardware cloth
 - Cardboard (if you have a weed problem in your yard)
 - Other organic matter like big sticks or logs to go at the bottom of the bed to fill it up so that you don't have to buy as much soil
- Tools
 - Level (or a level app on your phone)

- Drill and drill bits
- Wire cutters (aviation snips work best)
- Staple gun
- Shovel
- Thick gloves

Construction

1. Dig out the site so that it's level and has four 6-8" deep holes at each corner for the posts (measure and mark the hole locations so that they match your bed design)
2. Lay the corner posts down flat on the ground and arrange three of the 32" 2 x 6 boards on top of them so the ends of the boards are flush with the edge of the posts and the top board is flush with the top of the posts
3. Hold the 32" 2 x 6 boards in place and pre-drill two holes on each end, through and into the posts
4. Screw the three 32" 2 x 6 boards into the two posts (if you have two drills, you can do this step right after the holes are pre-drilled)
5. Repeat this for the other set of 32" 2 x 6 boards and posts – now you have two completed bed ends
6. Stand up the bed ends so that the so that the extra 6" posts are in the air and attach three of the 72" 2 x 6 boards to the completed bed ends the same way (lining the boards up flush with the ends of the 32" 2x6 boards, pre-drilling holes, and attaching them with screws)
7. Attach the final three 72" 2 x 6 boards to complete the bed
8. Attach the 18" 2 x 4 boards to the center of the inside of the long side of the bed to prevent the long side boards from warping over time (remember to screw them in from outside)
9. Put on thick gloves, roll out the hardware cloth, and cut out two 7' long sections if using 2' wide hardware cloth or one 7' long section if using 4' wide hardware cloth
10. Place the hardware cloth inside the bottom of the bed overlapping the two sheets by at least 6" if using the 2' wide hardware cloth
11. Bend the extra hardware cloth up the sides of the bed, cutting a diagonal at the corners so that you can fold out the hardware cloth to leave space for the posts, and then use a staple gun to securely attach the hardware cloth to the wood every few inches
12. Use wire or metal rings to connect the two pieces of gopher wire where they overlap in the middle
13. Optional: if your bed is on a weedy surface, or soil that might have weed seeds, place a layer of cardboard on the bed site, overlapping so that no soil shows through, to act as a weed barrier
14. Flip the bed to that it's right side up and set it into the prepared site, adjusting the corner holes as needed so that the bottom boards of the bed are resting on the soil surface
15. Use the level to make sure the top of the bed is level, adjusting as needed by digging out or filling in spots where the bed is resting on the soil until all sides are level
16. Fill in the holes and along the sides of the bed, packing in the soil so that the bed is stable and does not move around