

Creating a Raised Garden Bed: A Constant State of Figuring Things Out

By Alison Toy

Building a raised garden bed has always been on my list of things to do. This year the UC Davis Tahoe Environmental Research Center, and by extension me, received a grant from the Lake of the Sky Garden Club to put a raised bed into our Tahoe City Demonstration Garden. I finally had the resources and the opportunity to create my first-ever raised bed garden. The problem was that although I may have some knowledge about gardening, I have no experience with building a raised bed. Through trowel and error I've learned a great deal about the process of installing a raised bed.

In my research I found one thing was startlingly obvious: there are many different types of raised beds of every material imaginable. There is no consensus as to what is universally the best. However, there are many other factors to consider before you even begin to build.

When putting in a raised bed an important consideration is the available space and placement of the bed. What areas are shady? What areas receive the most sun? Where is the water source? Answering these questions is easy and this level of familiarity with your garden is key to becoming a successful gardener. I took a day to scope out the garden, checking every couple of hours to create a simple map of where the path of sunlight traveled within the garden and taking note as to how much sun exposure each area of the garden received. In Tahoe a southern orientation generally takes full advantage of available light. In the end, I chose a nice southern-facing spot, next to a sprinkler head that was in a flat area.

Researching raised beds showed how creative gardeners can be. People make raised beds out of anything; hay bales, cinderblocks, whole logs, and even glass beer bottles! This goes to show that you don't have to spend a lot of money to build a raised bed--you can use whatever you have available. I chose a classic rectangular design 4'X6' with PVC hoops because it was simple and would easily fit in the space. Simple construction involved screwing two six-foot-long 2x4s on to one side of a four-foot-long 4x4 and screwing on two four-foot-long 2x4s to the other side, repeated until all four sides are complete. With this smaller size, I tried to ensure that all areas of the raised bed are easily accessible, with all gardeners being able to reach from the border to the center. The PVC hoops were a nice touch and easy to add--all you need are galvanized tube straps and 10-foot-long 1/2inch PVC pipes. In Tahoe it will be very helpful because with the leftover winter chill of early spring, I can protect the little seedlings by draping the hoops with frost cloth. Another option for a cold day is to utilize the sunlight available by covering the hoops with clear polyethylene film to raise the air and soils temperature and give the plants an early start. Finally in the peak of summer when that harsh sun flares down and sunburns everything in sight, I can drape a shade cloth to protect the delicate plants from being baked alive.

I was excited after the light construction was finished and we had a beautiful raised bed. In Tahoe we have a lot of animals that would love to dig up our gardens and pinch our veggies. For this reason before adding soil, I lined the bottom of the bed with hardware cloth to keep out the voles, moles, gophers, and ground squirrels. We ended up using posts to extend an additional 12 inches above the height of the frame. Using the posts, we can wrap the entire bed with hardware cloth or

chicken wire to keep rabbits and above-the-ground critters out, if needed. Building this raised bed was a fantastic experience and I am so excited to see my little seedlings blossom into chubby vegetables! This raised bed is open to the public and can be viewed at the UC Davis Field Station at 2400 Lake Forest in Tahoe City.

Instructions for Building Your Raised Bed

These are the instructions we followed to build our raised bed in Tahoe City. Feel free to adjust dimensions according to what your garden can hold. Please note that the materials we purchased were on a much larger scale--for example, we bought an eight-foot-long 4x4 and we asked the home improvement store to cut it into four two-foot-long pieces. If you make a list of exactly what you need and then make a trip to your local home improvement store, they are more than willing to help you cut what you need.

Materials for a 6 foot by 4 foot raised bed:

- Four 2' long 4x4
- Four 6' long 2x6
- Four 4' long 2x6
- Two 10' long ½-inch PVC pipes
- 32 3½-inch screws
- 16 1-inch screws
- One 4'x 6' roll of ¼-inch-mesh hardware cloth
- Four 1-inch galvanized tube straps (semicircular brackets)
- 24 cubic feet soil mix (look for combination of topsoil, compost, and potting soil)
- One Shade/Bird cloth
- One Electric Drill
- One pair of wire cutters

Assembly

Set a 4' 2x6 on its thin edge on pavement, and place a 4x4 post at one end. Secure post with two 3½-inch screws. Repeat at other end of board. Repeat with other short board. Join short sides with a 6' board and secure with two screws. Add other long side. Add second layer of 2x6s. Another option is to build each wall separately and fasten them together one side at a time.

Position

Transfer it into your already dug out footprint in the yard. If your original footprint is a little off from the dimensions of the bed, adjust accordingly. Mark the areas that need adjustment with trowels or pens. Move the bed aside and dig or fill in as need be. Put the bed back into place, with posts in holes; fill around posts with soil.

Adjust the Lining

Trim the hardware cloth with shears or wire cutters to fit around corner posts. Tuck in any extra hardware cloth to areas that look penetrable to little burrowing rodents.

Attach pipe

To hold hoops for bird netting or shade cloth, mount the galvanized tube straps to the bed walls, inside or outside. On the long sides, space pipes four feet apart and one foot from each end. Simply bend the two 10' long pieces of ½-inch PVC pipe to form semi-circles and slip their ends into the tube straps. Fill the bed with a planting mix of topsoil, compost, and potting soil; rake it smooth, and moisten it with a gentle spray from the hose. Then drape the hoops with bird netting or shade cloth over them. These covers ward off insects and birds and also keep plants warm in cool weather. Tahoe has a very cool, dry climate and an active animal life. This simple framework of hoops and a lightweight cover can extend the growing season in this cool climate; it also conserves moisture, and protects plants from birds or insects. Use frost cloth to preserve your plants from unexpected snow and frost in the unpredictable Tahoe weather. Use clear polyethylene film to raise soil and air temperatures in early spring or fall or to get an early start on heirloom tomatoes. Be careful not to bake your plants on the really sunny days! Remove the cover or slit vents in it to avoid excessive heat buildup. For pest control, cover the bed with bird netting or with gauzelike fabrics, which keep out flying insects but let in both light and air.