A REALLY RAISED BED

adapted from “Grow Your Own Greens” by Jon Traunfeld, Maryland Cooperative Extension

The Really Raised Bed is essentially a shallow wooden frame with a large surface area and a mesh bottom that allows water to drain. You can attach legs of any length you desire or set it on saw horses or other supports. It is portable, versatile, easy and inexpensive to build, and terrific for gardeners of all ages, sizes, and abilities. It can be moved to capture sunlight in spring and fall and to avoid the sun and high heat of summer. Best of all, you can garden comfortably at waist level and avoid problems with pest animals. The Box Bed is the baby version of the Really Raised Bed and works especially well for kids and folks with small spaces.

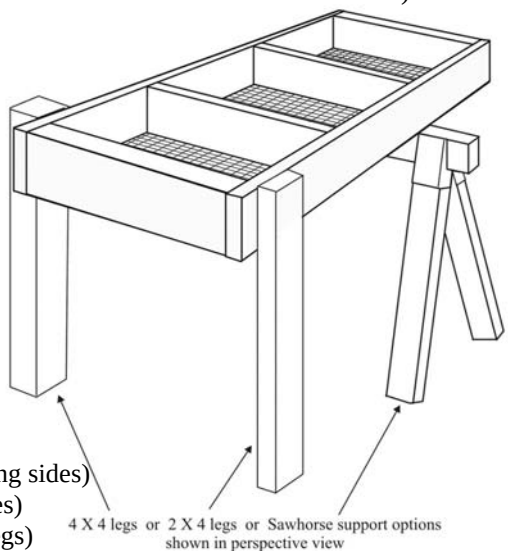
Building a Really Raised Bed (33” wide X 58” long):

• Untreated framing lumber: use 2 x 4's for lettuce and small plants, 2 x 6's or 2 x 8's for larger plants

- Two boards 10’ long (for table sides
- Four boards 8’ long (for table legs)
- Three 1 x 2's 8' long (for attaching galvanized wire)

• 3” coated wood screws designed for outdoor use (Deckmate is one brand)
• 1 5/8" coated wood screws
• 1/4” staples (and staple gun)
• 3’ X 5’ roll of 1/4” mesh hardware cloth (This is galvanized wire mesh that comes on a roll.)

Tools:
Electric saw
Drill
1/8" or 3/16" drill bit
#2 Phillips screwdriver bit
Tape measure
Square
Tin snips
Staple gun
Leather gloves



Directions:

Cut (2) 58” sections from one 10’ piece of 2x lumber (long sides)
Cut (4) 30” sections from the other 10’ piece (cross pieces)
Cut (4) 30” sections from the 8' 2 X 4's (inside support legs)
Cut (4) 36” sections from the other 8' 2 X 4 (outside legs)

• Attach the long sides (58”) to the cross pieces (30”) using the 3” galvanized screws (3 screws/cross piece.) The two interior cross pieces are attached 18 3/4” from each end of the long piece (this makes for three roughly equal sections.)
• Build four sturdy legs by attaching each of the 30” legs to a 36” leg using the 3” coated wood screws.
• The table will rest on the shorter piece of each 2-piece leg. Attach the legs, 4 inches in from the four corners of the bed, by driving four 3” screws through the top of each leg and into the long side of the frame.

• Center the hardware cloth over the box, pull it taut, and staple it to the frame bottom. Use tin snips to clip small sections to fit around table legs. Trim any excess on the edges.
• Cut appropriate lengths of 1x2 wood strips to cover the edges of the galvanized wire. Use 1 5/8"" screws every 10" to attach strips to bottom edge of table, thereby firmly attaching the galvanized wire.

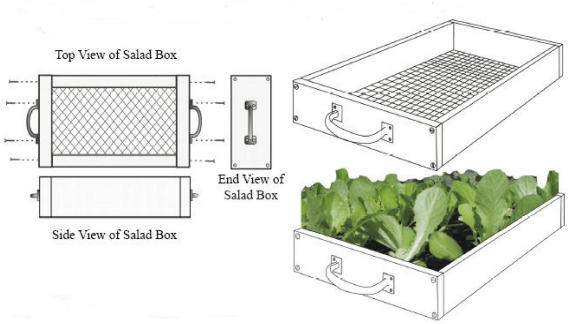
Tip:
1) Drill pilot holes with a 1/8" or 3/16" drill bit before driving in the coated screws.

Alternative construction methods:

1) The Really Raised Bed can be made any width and length as long as the weight of the growing media, water, and plants can be supported.
2) If you prefer, you can have a lumber yard or hardware store make the required lumber cuts. You can use 2 x 4 lumber for the bed if you only want to grow greens or radishes. Use 2 x 6 boards for a deeper growing bed (snap beans, herbs), or 2 x 8 boards for bigger plants (peppers, determinate-type tomatoes, and bush cucumbers.)
3) Legs can be made from 4 x 4's (with a 1 ½" x 3 ½" notch cut out to support the frame) or you can set the frame on two sawhorses, or other supports. Attach casters to the legs to make it mobile on a concrete surface!
4) Cover the bottom of each bed section with fiberglass window screen or several layers of newspaper to prevent the growing media from sifting out. Or use a plastic bag with small holes cut with a knife for drainage.
6) You could make the frame with one divider instead of two.
7) For a more beautiful Really Raised Bed, paint it with exterior latex paint.

Building a Box Bed:

• Cut one 8' board (2 x 4 or 2 x 6) into four 24" pieces.
• Cut one 8' 1 x 2 into four 24" pieces.
• Use 3" coated screws to attach the pieces to form a square.
• Attach 1/4" hardware cloth to the bottom with a staple gun and 1 x 2 lumber as described above. Attach handles if you like.
• This weighs about 12-15 lbs. when filled with moist growing medium and plants.

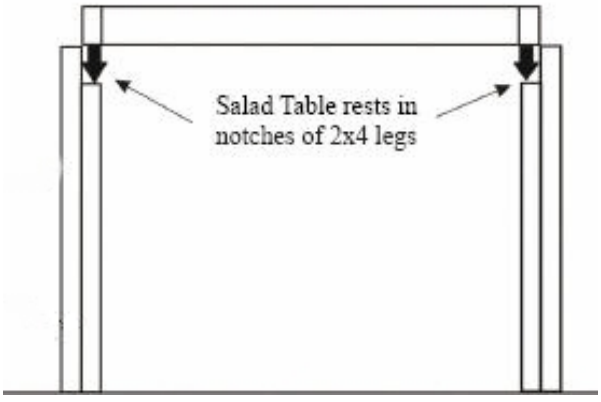


Getting Started: Location, Tools, Supplies

Location is one of the keys to getting the most from your new container gardens. Select a convenient spot close to a water source. The ground should be level; otherwise water will pool in the corners of the frame. Leaves, twigs, flowers and other debris will land on them if located under trees. If possible, select a sunny spot for April-June 15, move your garden to a more shady spot from June 15-Sept. 15, and then back to full sun from mid-Sept. through November. The only items you'll need are seeds, growing media, fertilizer, scissors, and a watering can, or hose and nozzle. Another useful tool is an inexpensive hand seeder that will help you evenly space small seeds.

What Can I Grow??

Broccoli family-	arugula, kale, mustard greens, radish, cress, broccoli raab, mizuna, kyona, komatsuna
Beet family-	spinach, chard, orach, beets
Lettuce family-	lettuces, endive, escarole, chicory (Note: 'Deer Tongue', 'Red Sails', 'Bronze Arrow', 'Jericho', and oak leaf types are more heat tolerant)
Parsley family-	chervil, parsley, cilantro
Mint family-	basil, thyme, anise hyssop
Other crops-	bush tomato, snap beans, herbs, flowers



Fertilizing

Commercial container soil does not contain enough nutrients to produce high yields over a growing season. Incorporate a dry fertilizer into the growing media- one that contains nitrogen, phosphorous, and potassium. Examples are slow-release fertilizers (Osmocote, Dynamite, etc), cottonseed meal, and chicken manure products that have been composted or heat-treated to kill pathogens. These products provide nutrients for many weeks depending on the nutrient content, weather, and crops grown. Always follow label directions. Liquid fertilizers, like compost tea, kelp and fish products, and soluble "plant foods", are also suitable but will need to be applied more frequently than dry fertilizers.

Growing Media

Your choice of growing media is very important because your plants are dependent on a relatively small volume of growing medium. Unlike their cousins growing in garden soil, containerized plant roots cannot grow around obstacles or mine the soil far and wide for nutrients and water. Growing medium has three main functions- 1) supply roots with nutrients, air, and water, 2) allow for maximum root growth, and 3) physically support the plant. Your growing media should have large particles with large pore spaces between the particles. This will make it light and fluffy (well-aerated) encouraging fast seed germination, strong root growth, and good water drainage.

• Fill your table or box with 100% soil-less growing media (contains peat moss, perlite, and vermiculite), 100% high quality compost, or a combination of the two.
• Always pre-moisten soil-less mixes containing sphagnum peat moss.
• Soil-less growing media will settle quite a bit because of the large pores.
• Avoid garden soil, because it is too dense and contains weed seeds.
• It's best not to re-use your growing media a second year. It will not drain as well and could harbor disease and insects.

Watering

Really Raised Beds require about one gallon of water daily, either from a watering can or a nozzle attached to a hose that delivers a soft water spray. Less water is required during cool, overcast weather. Never use hot water from a hose that has been sitting out in the sun.

Using the Really Raised Bed for Salad Greens

• Fill your frames with growing media and level it off (don't pack it).
• Make shallow furrows across the length of a section. Furrows are spaced 4"-5" apart.
• Sow seeds 1" apart in the row and then cover very lightly with growing media.
• The seeds of most salad greens will germinate in 2-4 days. It will take longer when growing media temperature is below 50° F or above 80° F.
• A floating row cover (Remay, etc) can be draped over the frames to promote faster plant growth in spring and fall. The cover raises temperature and humidity and protects plants from wind damage.

Continuous Planting and Harvesting of Greens

• Sow salad greens continuously from late March through the first week in October. Basil and thyme should be sown in mid-May.
• Salad greens will grow 4-6 inches in height in 25-40 days, depending on the crop, time of the season, and weather conditions.
• The "cut-and-come-again" harvesting method is very efficient. Use scissors to cut all plants close to the growing media level. The plants will re-grow and can be harvested again. Sometimes it is possible to get a third cutting.
• One Really Raised Bed will produce 16-32 oz. of greens from a single cutting.
• When plants become weak, bitter, and unproductive they can be "turned under" or pulled out by hand.
• The growing media can be replenished and fertilized, if necessary, and the next crop is sown. Each section of the Really Raised Bed can produce three crop cycles between late March and November.
• An alternative harvesting method is to thin plants so they are spaced 4-6 inches apart and harvest outer leaves or entire plants.