

How to Build an Elevated Square Foot Garden

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Tools:



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Drill (electric or cordless with charged battery)
Assorted drill bits
Screwdriver bit appropriate for the screws being used
Circular (electric or cordless) and hand saw

Materials:

Pressure treated lumber vs. conventional lumber:

Pressure treated lumber manufactured since 2004 no longer use a form of arsenic to protect the lumber from insects. It is significantly less expensive than most other lumber available at the “Big Box” stores. If you wish to stain or paint treated lumber, you may have to wait up to six months for it to dry enough to stain or paint. Use care when sawing pressure treated lumber; wear an appropriate respirator and throw away sawdust and left over scraps in the trash. Do not try to recycle pressure treated lumber in a compost bin.

Conventional lumber has either natural resistance to pests and fungus (redwood, cedar and cypress) or no resistance to pests and fungus (pine, oak, and poplar). Staining and painting may be necessary for the wood to last more than a couple of years as a garden bed. Lining the inside of the garden bed with 6-mil black plastic may prolong the life of the lumber

If you are uncomfortable with the belief that chemicals from the pressure treated boards will leach into the garden then use untreated pine lumber, cedar or cypress.



Here is a list of materials:

One pound of coarse-threaded 2-½" galvanized or treated deck screws
One pound of coarse-threaded 1-5/8" galvanized or treated deck screws
One bag zinc plated bolts and nuts (#10 24x1") (for grid)
One bag washers (#10) (for grid)

2 – 2"x10" pressure treated pine lumber 8-feet long. Have the lumber yard cut these boards into 4-foot lengths. These will become the frame of the square foot garden.

3 – ¼"x1½" pressure treated pine lattice 8-feet long. Have the lumber yard cut these boards into 4-foot lengths. These will become the grid of the square foot garden.

1 – roll or piece of fiberglass screening sufficiently large enough to cover the bottom of the Square Foot Garden. This prevents mix from plugging holes in the bottom of square foot garden "box".

4 – 2"x2"x36" balusters which can be found in the treated decking section of the garden center. They are normally used as vertical posts to hold up handrails on decks. These will become the support for the plywood bottom of the square foot garden "box".

1 – 2"x6" pressure treated pine lumber 12-feet long. Have the lumber yard cut these boards into 4 equal lengths boards (approximately 36 inches long). These will become one part of the legs to hold up the square foot garden.

1 – 2"x4" pressure treated pine lumber 12-feet long. Have the lumber yard cut these boards into 4 equal lengths boards (approximately 36 inches long). These will become one part of the legs to hold up the square foot garden.

2 – 1"x4" pressure treated pine lumber 8-feet long. Have the lumber yard cut these boards into 4 foot lengths. These will become the top plates to finish off the square foot garden.

1 – ¾"x4'x8' pressure treated pine plywood (exterior grade). Have the lumber yard cut this board in half. Then cut one of the half sheets into a 46-1/2" x 46-1/2" square. This will become the bottom of the square foot garden.

4 – 4"x4" post caps which can be found in the treated decking section of the garden center. They are normally used to finish off vertical 4"x4" posts as a top cap. These will become the corner decorative pieces to the top of the square foot garden.

Assembly:

Pre-drill 4-5 holes in the side of one end of the 2"x10"x48" boards.



Pre-drill 5 holes in each of the 36" balusters. Start in the center, then to each end, then in the middle of these screws



Center one baluster on the bottom edge of each 2"x10"x48" board and fasten with 2-1/2" screws.



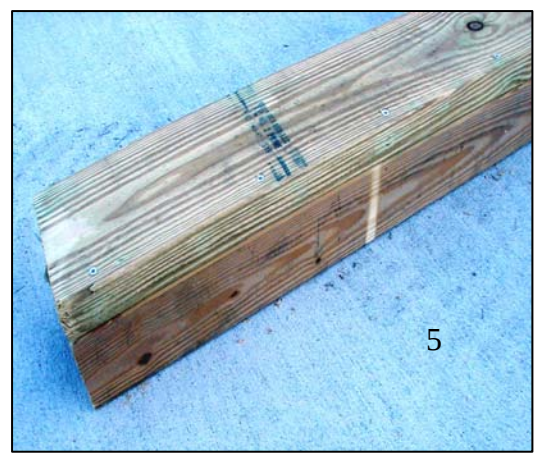
Using galvanized or treated deck screws, screw the boards together using the cordless drill with the appropriate screw driver bit (balusters on the bottom).



Pre-drill 5 holes in each of the 36" 2"x6" boards
Pre-drill 5 holes in each of the 36" 2"x4" boards
Start in the center, then to each end, then in the middle of these screws



Fasten one 2"x6"x36 inch board to one 2"x4"x36" board to create one leg.
Use 2-½" screws.



Repeat four times to build all four legs to hold up the Square Foot Garden



Turn the square foot garden “box” upside down; attach leg assemblies to each corner with 2-1/2” screws.





Turn square foot garden “box” right side up and install plywood bottom with 1-5/8” screws. Mark and drill $\frac{1}{4}$ ” holes, 6 inches apart across the surface of the plywood bottoms.



Measure and cut top plates (1”x4”x48”) to fit inside length of side boards of the square foot garden “box”. Drill holes along edge and screw to top of side boards of the square foot garden “box” with 1-58” screws.

Drill and screw corner caps into top of exposed leg at each corner with 2-1/2” screws.



Place the raised bed frame on level ground in an area that receives at least 6 hours of sun, close to a water source and close to the house so your guests can see it. Place the fiberglass screening over the top of the plywood bottom before filling the square foot garden “box” with Mel’s Mix (see information elsewhere in this factsheet).



Growing Media:

Fill the elevated Square Foot Garden with the best potting mix you can find or mix your own using the materials recommended by Mel Bartholomew, inventor of the Square Foot Garden; watering as you fill to ensure that the potting mix settles.

Potting mix usually comes in 2 cubic feet bags. You will need 13.5 cubic feet of potting mix (7 bags) to fill a 4'x4'x10" Square Foot Garden.

If you use “Mel’s Mix” (highly recommended), you will need 4.5 cubic feet of **peat moss**, 4.5 cubic feet of **coarse Vermiculite**, and 4.5 cubic feet of **blended compost** for a quality growing media for your future vegetables.

Peat moss may come in loose filled, 2 cubic foot bags or in 3.8 cubic feet compressed bales. The compressed bales will expand to twice their volume once removed from the bag and fluffed up.



Coarse Vermiculite may be difficult to find at the local garden center. So look to greenhouse and plant nursery suppliers as a source. It must be horticultural grade. In the central Florida area, BWI in Apopka, FL is such a place and the coarse vermiculite can be purchased in 4 cubic foot bags.



Blended compost may difficult to come by but not impossible. It is easy to blend your own. Composted cow manures, chicken manures and mushroom compost are easily obtained at most “big box” stores. Worm castings and bat guano are also welcome additions to arrive at five different composted materials that provide a broad spectrum of beneficial organisms and minor elements so critically needed for your future vegetables.



GRID: It isn't a Square Foot Garden without a grid to help you organize your garden.

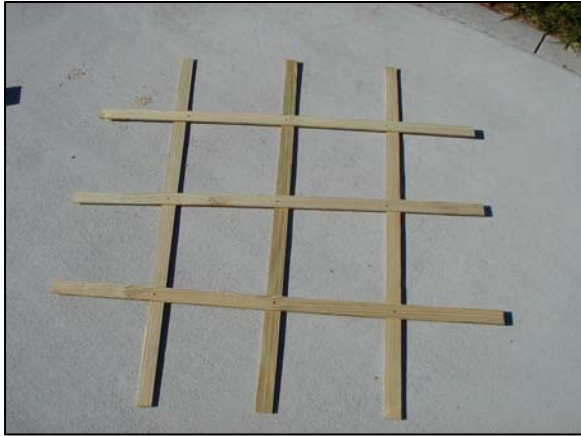
Assemble the grid from the $\frac{1}{4}$ "x $1\frac{1}{2}$ "x48" lattice. Use zinc plated, appropriate size bolts, nuts (#10 24x1") and washers (#10) to complete the assembly.



Gather materials



Stack lattice pieces, and drill $\frac{1}{4}$ " holes starting in the center and working your way to the edge with a hole drilled at 12" from the center hole.



Lay out grid and place bolt, washer and nut where grid members cross; tighten finger tight.



With the bolts, nuts and washers in place, the grid can be folded up for storage when garden is shut down.

For more information about Square Foot Gardening and growing vegetables in Florida, contact your County Extension Service Office.

Additional resource: [The New Square Foot Gardening](#) by Mel Bartholomew



(Photos courtesy Ed Thralls 2011)