QUICK + EASY FAMILY GARDEN



Raised Bed Supplies:

- (3) 1"x8"x8' boards (fir is most economical, redwood and cedar are upgrades, avoid pressure treated wood)
- (8) ¹/₂"x1"x18" garden stakes
- (8) 2¹/₂" coated wood screws
- (16) 1¹/₄" coated wood screws
- Burlap (sold in 3'x24" rolls) or newspaper (no coatings or colored inks)
- 18 cubic feet of soil (sold in bags of 1.5 cubic feet).

TIP: Use a mix of raised bed soil and topsoil to help keep costs down.

Protective Cover Supplies:

- (6) ¹/₂" x 2' #4 rebar lengths
- (4) ¹/₂" x 10' PVC pipe lengths
- (2) PVC pipe end caps
- (3) 1 3/8" x 2¹/₂" #320 zinc-plated U-bolts (substitute: zip ties)
- Bird netting (sold in 14'x14' rolls)
- Plastic sheeting (sold in 10'x25' rolls), optional
- (8) $\frac{3}{4}$ " x $1\frac{1}{2}$ " x 8' PVC trim boards, optional
- (~24) large binder clips

Tools:

- Mallet or heavy hammer
- Hand saw
- Power drill
- Utility scissors
- Staple gun
- Bow rake



Instructions for Garden Box

- Make the box: Cut one of the 1"x8"x8' boards in half to create the shorter end pieces of the box, then assemble the box by attaching the boards at the corners with simple butt joints. Pre-drill two holes at each corner and attach with the longer wood screws (Figure 1). Slightly countersink each screw. Make sure all four corners are stably resting on the ground, leave room to walk all the way around the bed, and use string or a tape measure to make sure the box is square (both diagonals should be about the same length, it doesn't have to be exactly perfect).
- 2. Anchor the box: Use the mallet to place a garden stake tight inside each corner. Add two more garden stakes on the outside of each long side, each should be about 3' from the corner (figure 2). The tops of the stakes



Figure 3 Attach garden stakes to box



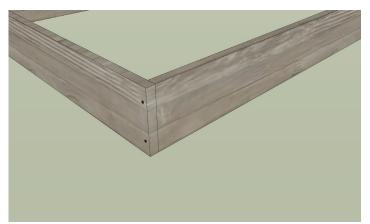


Figure 1 Box corner butt joint detail

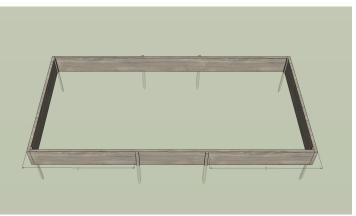


Figure 2 Garden stake placement

should be flush with the top of the box. Predrill holes and use the shorter wood screws to attach the stakes to the box, two screws per stake (Figure 3). Slightly countersink each screw.

3. Add soil: Line the bottom of the box with burlap, running the material a few inches up the inside of each side of the box (Figure 4). Staple it in place about every 8" or so. You can use newspapers instead of burlap. Fill the bed with soil. Add 4-6 bags of soil at a time and use the rake to spread each layer evenly, tamping it down a bit and breaking up clumps. Water the soil without about 1" of water and let it settle for at least a day before planting.

If you don't want to create a protective cover, you are done!

Figure 4 Lining the box



Instructions for Protective Cover

4. Create the hoops: Use the mallet to place the lengths of rebar. These are the anchors for the hoops so they should be placed at the ends and centers of the long edges of the box. Leave about 10" of rebar exposed above ground. Slide one end of a PVC pipe onto a rebar anchor (Figure 5). Bend the PVC pipe across the garden bed and slide the other end onto the opposite rebar anchor to form a hoop. Make sure to slide both ends of the PVC pipe all the way down to the ground. Repeat this for the other two sets of rebar anchors, to form three PVC hoops across the bed. Cut the remaining PVC pipe down to 8' long and place a cap on each end. This is the ridge beam which will give the hoops stability and help hold up the netting. Attach the PVC ridge beam pipe to the center of each hoop

with the U-bolts, finger-tight. I initially places this piece below the hoops but I later realized it needed to be on top (Figure 6).

5. Protect your garden: Drape the entire roll of bird netting over the hoops and secure with the binder clips, gently stretching to fit. Trim excess netting as necessary.

A more elaborate cover is made by layering netting under a plastic sheet and using PVC crossbars for additional support. This allows either component to be raised or lowered as needed.

 Cover short ends with plastic: Cut (2) 5' x 5' square rectangles from the plastic sheet. Secure each square to the end hoops with binder clips. Trim excess plastic.



Figure 5 Rebar anchors for PVC pipe



Figure 6 Proper PVC ridge beam placement on top of hoops



- 7. Netting: Working on a large clear space of ground, lay out (4) of the PVC trim boards as shown (Figure 7). Center the bird netting over the PVC trim boards and staple the netting to the boards about every 6" along the length of the boards. Trim the netting down to approximately 9' x 11' as shown (Figure 8).
- 8. Plastic: Lay out the remaining (4) PVC trim boards as shown, on top of the netting (Figure 9). Cut the remainder of the plastic sheeting down to approximately 9' x 12'. Lay it out as shown (Figure 10). Staple the plastic sheet to the two central PVC boards and the four outer PVC boards (highlighted in green in Figure 10). Do not staple the plastic to the boards that are not highlighted green.
- 9. Install cover: Roll up each end of the netting and plastic so each side meets in the middle (Figure 11). Transport this bundle to the garden bed and place it over the top so that the ½" PVC pipe ridge beams fits between the two middle PVC trim boards (Figure 12). Gently unroll each side, trim excess of the netting and plastic but leave enough so that each layer can be easily secured to the hoops with binder clips. Leave enough plastic sheeting along the long sides of the bed so it can be weighed down with rocks for extra security.
- 10. Final garden with net down and plastic up (Figure 13)
- 11. Final garden with plastic down (Figure 14)

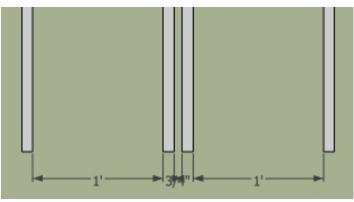


Figure 7 PVC trim board layout

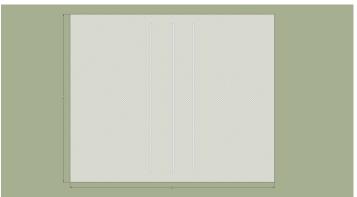


Figure 8 Lay out 9' x 11' netting

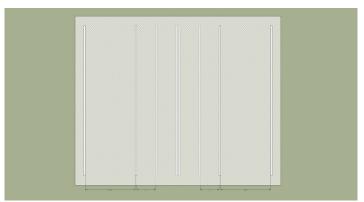


Figure 9 Lay out PVC trim boards on top of netting

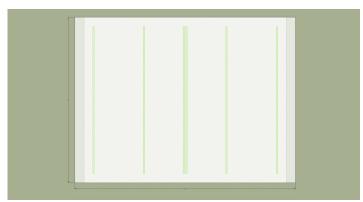


Figure 10 Lay out 9' x 12" plastic sheeting



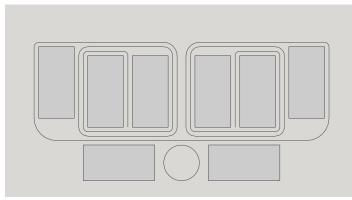




Figure 11 Roll up netting and plastic to middle

Figure 12 Place bundle over top so PVC ridge beam fits between trim boards



Figure 13 Garden with net and plastic closed, just in time for Spring snow!

