

Vegetable Garden Tunnel



HOW WE WENT ABOUT BUILDING OUR TUNNEL

After the hail we had in November my vegetable patch was destroyed so Gary and I decided to build a raised bed, so that I wouldn't have to bend down to weed the vegetable garden. We built it 700mm high, but this could be as low as you want, the higher you go, the more sand, bricks etc you will need. The dimensions are by preference, I built mine with a planting width of 550mm, because I didn't want to stretch too far over. We left a space to get a wheelbarrow down the middle, for filling the bed with soil. Overall dimensions from outside brick to outside brick across is 2.2m, each bed 750mm wide and 700mm high, and 12 m long. We used Clay Stock Bricks so we would not have to waste money plastering and painting, and they are cheaper than Face-bricks.

Drainage: Once the brickwork was done we used 50mm PVC Pipe, the width of the beds, grooved slots in them and placed them across the bottom of the tunnel, sticking just out on the sides, wrapped them with a bit of weed-ex (horticultural membrane) so that the soil could not block them. We then filled the beds about a third with stone at the bottom, then put weed-ex on top of the stone to prevent weeds, grass etc, from growing up, and filled the balance with soil. I used a supermix from the nursery with compost in. It took a lot of soil to fill because it was so high and long.



BUILDING THE TUNNEL ROOF

Step 1:

Using 50x76x3m structural timber (8 pieces for the 12m tunnel, 4 on each side), we drilled 40mm holes, using a speedbore bit (flat wood bit) at 1200mm centres starting approx. 50mm from the end of the timber. Make sure that the holes match the two corresponding sides. The best way to do this is lay your pieces on one side flat on the ground, number them 1-4 and lay 5-8 next to them drill your holes evenly. Once all your holes are drilled, give two good coats of Waksol, or any good wood preservative, making sure to do inside the holes as well.

Step 2:

Place the treated timber 1-4 on the top row of bricks. Using a 10x130mm Nail in Anchor secure the timber to the top row of the bricks, making sure your timber is nice an secure.



Step 3:

We used 40mm SABS PVC Plumbing Pipes for our roof structure. According to our width of the structure that be had built, and the height that we wanted, we cut the pipes 4m long. Standing either side of the structure, we carefully bent the pipes simultaneously placing them firmly into the 40mm holes drilled into the timber, the fit was nice and solid. Once all the pipes were in place, using a 65mm self drilling Tek speed screw (as above) we secured the pvc pipe in the hole by drilling the screw through the timber into the PVC pipe from the outside. Note, we placed the timber flush with the outside edge of the brick. Because our tunnel was so long, we put two pipes in the middle of the tunnel for extra strength.



Step 4:

Side support 40mm PVC pipes. The first support pipe we placed approx. 450mm up from the brick structure, securing it in place with 65mm Tek speed screws again from the outside of the tunnel securing the cross support pipe to the main truss support. Once they were all in place we then secured a second 40mm pvc pipe, a further 680mm up repeating the process. Note all the screw are drill in from the outside, so that when you cover the tunnel with the tunnel plastic you cannot see any screw from inside the tunnel.



Step 5:

We used proper UV tunnel plastic which is 6m wide. Pull the tunnel plastic over the structure and once neatly over, secure the plastic from the outside using 25mm Tek speed screws to the timber structure, with 5mm fender washers for extra cover and to hold the plastic in place. Secure plastic to front and back of tunnel in the same manner.



There was just enough place on the inside of the brick to lay a 20mm irrigation pipe around the tunnel so that it was not lying in the soil and getting in the way of planting. My tunnel is totally organic and is watered from two JoJo slimline tanks and a pump. We secured the irrigation pipe with 20mm conduit clips.



And the final result



Proud to say that the tunnel has withstood a few major storms, hail and strong winds and the structure is strong and secure. The vegetables are thriving, I might close the back off with plastic in the colder months. The growth has been much faster than anticipated.

The Reward



These vegetables were planted on 24th December and picked on 15th March. Fresh, organic and delicious!

Hope our tunnel has inspired you to grown your own vegetables.

Regards Gary & Bev