

How to build a Wicking Bed Garden:



Materials needed to build two 5x1 meter beds (16x3')

The Frame: 20 sleepers, each 3.5 meters x 75 mm (8 feet x 3 inches). Red gum timber is stronger and will last longer than treated pine, which should be avoided in an organic garden because it will poison the soil. The price is almost the same.

Plastic sheet: 11 meters long (36 feet). We used black 200 um plastic sheeting which usually comes in roles 20 x 4 meters wide. If possible, look for industrial strength plastic at a farm supply outlet. **HINT:** we found a hole in one role of plastic, and sealed it with pool lining glue.

Shade cloth: 10 meters (33 feet) 70% shade cloth, for placement on top of the screening rocks. (or cut and overlap shorter off-cut pieces.)

Agricultural tubing: 1/ Agi-pipe: 10 meters (33 feet) x 65 mm agi-pipe. 2/ Alternatively, the latest method recommends using pvc pipe slotted by hand, only at the bottom and facing down, to prevent the pipe clogging up.

70 mm pvc pipe, plus optional pvc elbows for attachment to long pipe. (Purchase all parts at one time,- to be sure they fit.)

Rocks: 1/2 cubic meter 7 mm or 14 mm screening rocks (not river rocks)

Soil: 1 cubic meter organic garden soil

Compost: 1 cubic meter – mushroom compost is highly recommended

NOTE: Left-over soil can be used in other parts of the garden.

Any size or shape bed will do as long as there is provision for drainage. Several varieties of beds have been used: E.g. in-ground trenches for watering fruit trees, old bath tubs, rain water tanks, small plastic boxes, railway sleepers, shade cloth frames, chicken wire and straw, etc.



ANONYMOUS



**WE ARE ANONYMOUS
WE ARE LEGION
WE DO NOT FORGIVE
WE DO NOT FORGET
EXPECT US.**



Build the frame on completely level ground, for even water distribution.

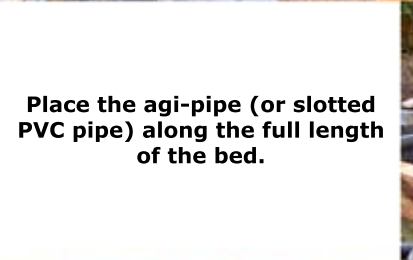
A layer of sand or sifted soil on the bottom of the beds will help to prevent sharp objects from cutting into the plastic sheeting.



Re-using old garden soil? Sift the soil into the bed, removing stones, seeds, weeds, & roots.

Then, add a generous mixture of organic compost, mushroom compost, lime, and blood & bone, -leaving a space at the top for mulch.

A good rule of thumb is to make the soil layer equal to the nature root depth of the plant (about 300mm for above-ground veggies.) After adding the soil, it is recommended to fold the plastic down to about 330mm below the top of the bed.



Place the agi-pipe (or slotted PVC pipe) along the full length of the bed.



Drill drainage holes at the end of the bed, just above the in-laid pipe and rocks, and pour water into the reservoir, through the upright pvc pipe, filling the reservoir up to the drainage hole

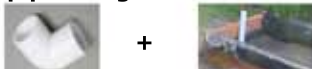


NOTE: The garden bed is watered from the top via the pvc pipe, creating an underground stream which waters the plants from below by 'wicking' up 300 mm through the soil.



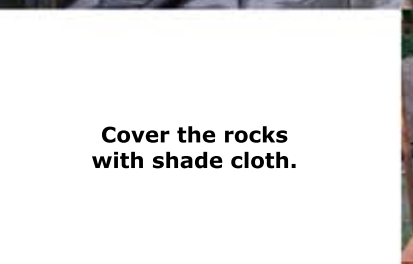
Cover the bottom of the bed with screening rocks to just above the agi-pipe.

**[Optional]
Connect the PVC upright pipe to the underground pipe using a PVC elbow:**



Cover the soil with a layer of organic mulch & plant seedlings.
<== (This example uses sugarcane mulch)

Drainage: preventing "wet feet"
Submersion of roots in water for too long will cause "wet feet" which reduces growth, & can rot the plants. Fill the reservoir with water up as far as the drainage hole, then wait until the soil is dry before adding water again.



Cover the rocks with shade cloth.



#FTW? Worms = Chelation! :-)

Place a compost bio-box in the wicking bed, where bacteria, fungi and worms can breed up and re-fertilize the soil. (This bio-box must be regularly topped up with organic waste)

Planter pot w/ extra holes =>

