

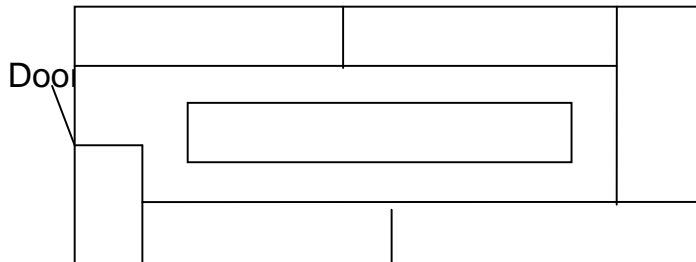
WICKING BEDS

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www.easygrowvegetables.com

THE LAY-OUT

The beds can be built before the ends of the shade house are closed in. We now use seven beds as we prefer shorter beds. We feed liquid organic fertiliser through the fill pipe and want it to spread more or less evenly, not be soaked up in the first half of a very long bed.



The beds along the sides and ends are about 850 mm wide. The central bed is 1m wide while the paths are 650 mm wide, enough for a wheelbarrow and easy walking.

Initially we made the sides of the wicking beds out of chicken wire and straw to save cost. They proved the concept, but after five years rust became a problem. Beds started to sag and leak a bit. We now use premium fencing cloth and 750 mm pegs (photos' 1 and 2). The cloth covers the pegs, the sides and the bottom as shown in photo 1.



Photo 1 Frame of small bed. an old design.



Photo 2 Finished beds. The long bed is

OTHER TYPES OF BEDS

Beds have also been built from other materials, such as colorbond sheets and logs.



Photo 3, bed made of colorbond-sheet.

Photo 4, bed made of logs, shade to come.

The black box in photo 3 is an in-bed compost/worm bin, available as a package complete with two species of worms from www.KookaburraWormFarms.com.au. We keep worms in all our beds, with very good results for our soil structure. The frames may vary, but all beds have a basin made of plastic liner, water storage and an overflow. We now use 90 mm PVC storm water drain as water storage. We drill holes (photo 5) or cut slots in them (photo 6), and connect them with a 90 degree bend to the fill pipe (photo 7). Make sure the holes face down, so the pipe does not fill up with soil.



Photo 5, 60 mm holes and upright.



Photo 6, slots being cut.



Photo 7, pipe

The overflows in the bed in photo 3 are two short lengths of 40 mm pipe placed between the plastic and the iron (photo 8). The plastic is folded down to about 330 mm below the top of the bed. Folded shade cloth is placed over the drain pipe (photo 9) to stop soil from being washed down. Water trickled down when the bed was filled (photo 10, the darker patch). We have to wait for heavy rain to test it properly.



Photo 8, drain pipe. trickling out.



Photo 9, cloth cover.



Photo 10, water

OTHER IDEAS



Photo 11, beds at the Gin Gin State School



Photo 12, still under construction

In soft soil longer pegs may be needed, as the weight of the soil can push some pegs outwards leaving not enough walking space. In areas with severe white-ant problems, steel rods have been used instead of wooden pegs with galvanised iron sheets as sides.

BENEFITS/COSTS

The total cost of materials for the shade-house and fence-cloth beds is about \$1,200. We have about 18 square meters of bed surface, so our cost per square meter of growing area is about \$67 plus labour. Having built a few, we need about three to four days to build a system. One shade-house has provided most of my vegetables since March 2004 with minimal work, a few hours per week. It has well and truly repaid itself.

BUILDING THE BEDS

Building sequence in detail

1. Measure the first bed; we suggest making it 0.85 m wide or less for shorter arms.
2. Level the bed!! This is critical. The bed must be level both ways to prevent water-logging at a low side.
3. Hammer in stakes evenly spaced at 50 - 60 cm apart, leaving them 40-45 cm above ground. Use longer stakes in soft soil.
4. Run a length of fencing cloth on the inside the bed: folded over the pegs, down the side, across the bottom, up the other side and over the other pegs. Nail to the pegs with special timber stud fasteners for shade cloth. Stretch tightly along the top.
5. Cut plastic liner at least 500 mm wider and longer than the length and width of the bed. Place in the bed with the sides extending upwards evenly.
6. Cut a length of 90 mm PVC about 300 mm shorter than the length of the bed.
7. Cut large holes at regular intervals to make sure the water spreads.
8. Attach the pipe with a 90 degree bend to a length of PVC to 600 mm,
9. Place the PVC pipe on the liner and cover the bed with bagasse, hay or straw to 5 cm depth.
10. Spread an organic mineral supplement over the bagasse, hay or straw. A one-litre container holds enough for a 5 m bed.
11. Do the other beds in the same way.
12. Fill the beds up to the top with your soil/compost/manure/wormcast mix. We use a mixture of 40% clay, 40% sand and 20% wormcast or other organic matter; make sure the mix is even.
13. Spread more organic mineral supplement over the surface and rake it in.
14. Cover the surface with mulch or grass clippings.

Finish the Shade-house.

15. At the opposite side of the fill-pipe, press or fold the plastic down to about 150 mm above ground level in each bed. That is the overflow, to stop flooding the soil.
16. Once the shade-house is finished, fill the beds with water. Once the water flows out of the overflow the bed is full.
17. Plant the seedlings and water these from the surface for a few days.
18. Once the soil is moist throughout, put a worm feeding station and a few handfuls of worms or an in-bed compost/worm bin with the 'worm-bomb' into each bed.
19. Once the seedlings are established, only water through the fill pipe, keep the surface dry.
20. Water only when you cannot see free water at the bottom of the fill-pipe. This can take a few weeks in winter with small seedlings, or five days in summer with a full crop.

21. Waiting till there is no more free water kills any mosquito larvae.

HAPPY GROWING AND EAT WELL!!