How to make a Wicking Bed

A Vege Patch, Flower Garden or specimen Trees

It's worth the effort to keep your plants happy and watered for up to 10 or more days – even in El Niño drought conditions.

Hot and dry weather makes for harder growing conditions and the poor garden bed suffer or don't survive the harsh Australian temperatures.

Wicking beds are the answer – with a little effort you will have a stored water resource underneath the soil that wicks up through the soil to the roots to keep your plants alive.

Your Upcycled Wicking Bed can be purchased from NextGenRoto (NGR) and everything else you need can be picked up from a hardware store.
This clever 'self-watering' system 'wicks' or draws up water from a reservoir below and delivers to it plants as they need it. This process is driven by capillary action. When the soil is near dry, water is pulled from the reservoir and evenly distributed to the soil. This ensures no water wastage and that every drop is used.

The recommended maximum depth of the soil in a wicking bed should be 300mm, which is also the ideal soil depth for growing most vegies. You should allow approximately 200-300mm for the reservoir of scoria, so the total depth of the container will be between 500-600mm. For shallower containers, you will need to adjust the height of the reservoir, ensuring the final soil depth is no more than 300mm from the top of the wicking bed.

Materials you will need

- NextGenRoto's Upcycled Wicking Bed
- 19mm poly joiner
- 50mm-dia 90 PVC elbow
- 50mm-dia PVC end cap
- Compost
- Geotextile fabric
- Organic mulch
- Quality garden soil
- Scoria
- Seedlings/plants
- Slotted agricultural pipe
- Water inlet pipe 50mm-dia PVC pipe with enough length to sit above the bed

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Steps

Position your NGR Upcycled Wicking Bed in full sun and on a level surface. Add a 25-50mm layer of scoria in the bottom.

Position the Pipe
Connect the elbow to one end of the Upcycled Wicking Bed 50mm PVC pipe and position the pipe upright (elbow end down) one end of the container – ensure it is easily accessible as this is how you will top up the reservoir. Place a cap on the end of the pipe.

Secure and Cover the Pipe.
Attach the agricultural pipe to the elbow and allow it to run along the centre of the bed. Cover the pipe with a layer of scoria and level. Install overflow valve on the side of the container. Ensure it sits just above the level of the scoria. Unscrew the outlet and insert the poly joiner.



Cover the Scoria

Place a sheet of geotextile fabric over the scoria (this will help stop the soil particles blocking the reservoir).

Fill the Garden Bed
Add compost and quality soil and/or potting mix and pelletised fertilizer and mix in well. Plant up with your preferred vege or flower seedlings, small specimen trees, dwarf fruit trees etc. Water well from above and apply 3-4 cm layer of organic mulch around the plants.

Caring for your Plants

You will need to water plants from above for the first few weeks or until plants are established. Newly planted seedlings do not have established roots and are unable to draw moisture from the reservoir.

After a few weeks, fill the reservoir by adding water to the inlet pipe – the overflow pipe will overflow when the reservoir is full. Fill the reservoir up every couple of weeks and this will give you an indication of how fast the wicking bed dries out. Check the overflow pipe regularly to ensure it is not blocked.

Once the first lot of crops finish, top up with new soil, compost and organic matter. Mix them well to help freshen the existing soil.