



Discover the Rowes Bay sustainability centre



What is a wicking bed?

Wicking beds are garden beds that water themselves from the bottom up. Traditional garden beds are watered from the top down. They do this by capillary action. You can see this at work when you dip a piece of cloth halfway into a bucket of water - the cloth draws the moisture upwards like a wick.

What's good about wicking beds?

- They save water, using up to 50% less than traditional systems. This is due to reduced evaporation because watering happens from the bottom up.
- Stronger root systems - plants are encouraged to grow downwards towards the water instead of sideways.
- You can save time by watering less often. A full wicking bed should irrigate itself for about a week.
- They drain in heavy downpours. That means you can extend the growing season for plants that struggle in tropical conditions, such as Mediterranean herbs.
- Due to not watering the leaves directly, there is less disease from mildew, which is great for zucchini, cucumbers, watermelon and pumpkins.
- The beds need less fertiliser because there is no flushing from the system. This also means that you need to be careful not to over-apply nutrients. A good option is to place a tube into the bed, add some worms and feed them with food scraps.
- You can make them out of just about anything - plastic barrels, containers etc. You can experiment with shapes, stacking, linking them up and so on.

How do I make one?

1. Construct a frame. You can be inventive here - try cutting a plastic barrel in half, or use large plastic container or planter box. Containers can be big or small.
2. Line with builder's plastic (if the frame is timber, not necessary with plastic frames). Make sure you don't tear it - you can lay carpet first to protect the liner.
3. Add your water storage media (such as river rock) which should be approximately 20-30cm deep. Storage media layer holds 40-50% of the water and acts as a water reservoir.
4. Place porous piping on top of the storage media layer. Agricultural piping is commonly used. Cover the pipe in a sleeve to prevent clogging - they are sold together.
5. Make sure you have a drainage outlet and a filling pipe. Cover them so mosquitoes can't breed. You can use mosquito mesh or a nylon stocking.
6. Fill the bed with soil. 300mm is the optimum depth for a wicking bed but you can spiral the pipe around inside the container to allow deeper beds.
7. Plant your seedlings. You will need to water them in because the bed takes about a week to start wicking.
8. Play with the system - you can try growing small fruit trees in wicking pots for example, and can link several systems together via the one pipe.

NOTE: some sites suggest having two layers in the bed - large material like gravel or scoria, topped by soil. This is to hold more water in the base. Others suggest that it isn't necessary - experiment and see what works best for you.

Further information can be found through online search engines and video sites, search for Wicking Bed.