How To Make

A Wicking Bed

Transition Joshua Tree Permaculture Team
transitionjoshuatree.org
How To Make a Wicking Bed

A wicking bed is a garden bed within a waterproof container that holds a reservoir of water at the bottom from which water is drawn upwards like a wick to the surface of the bed via natural soil osmosis or through the roots of plants in the bed. It saves huge amounts of water as there is no soil surface evaporation especially with the use of surface mulch. It’s an excellent way to grow a vegetable garden in the desert. For more detailed information go to the following link and watch the video:


Instructions:

1. Cut a food grade 55 g plastic barrel in half. This will make two wicking beds. Make sure the fill plugs in the top half have good washers and are tightly screwed in.

2. 5” up from the bottom of the barrel drill a 5/8” hole. This is the overflow port.
3. Cut a 4” length of ½” irrigation tubing and wrap one end with some shade cloth.

4. Insert half way into overflow hole.

5. Cut a 1.5” width HD plastic tube into a 26” length. Cut a bevel on one end.
6. Cut a 7 foot length of 4” width flexible, **perforated** drainage tube. **Make sure the tube is the perforated kind!** Wrap with old shade cloth or drainage sock. Tie off one end.

7. Cut a slot into the drainage tube near the end that has not been tied off.

8. Insert the beveled end of the water feeder tube into the slot and tie off that end.
9. Coil the 7 foot drainage tube in the bottom of the barrel making sure to keep an empty place in the center.

10. Secure top of water feeder tube to top of barrel.
12. Cover drainage tube coil with landscape cloth or old shade cloth. Be sure to push the cloth down into the empty place in the center. This will insure good wicking.

13. Fill with sand to 1” above overflow port.

14. Cover with burlap or 3 to 4 inches of straw (not hay).
15. Fill with good garden soil enriched with compost. Good to have lots of crumbly organic matter in the soil. Helps with the wicking. Cover soil surface with straw for mulch. Put a hose into the water feeder tube and fill until you see water running out of the ½” overflow tube. Let the barrel wick for 24 hours. Then fill again to top off.

16. Plant or seed your veggies. If seeding you will need to surface water until germination begins. Use a stick inserted into the water feeder tube if you want to know the water level in the bottom reservoir. Always stop filling as soon as water runs out of the overflow port.

That’s it! Enjoy your low water use wicking bed!!!