

HOW TO SET UP A WORM FARM



WHY WOULD YOU WANT TO SET UP A WORM FARM?

Food waste is one of the easiest problems to reduce or solve in the home. Putting food into rubbish contributes to greenhouse gasses – why not turn the nutrients in kitchen scraps into food for the soil instead? Use it for some good by setting up a worm farm.

WHAT?

A worm farm is a compact, low-maintenance way to turn kitchen scraps into soil food. Good for the planet and good for your garden!

IT'S OKAY TO...

- > not know what you want to do
- > get knocked into the pit
- > move faster or go slower
- > fail (as long as you tried)

WHAT YOU NEED

- > a container for your worm farm, such as a large plastic plant pot, a plastic bucket with a lid, a garbage bin with a lid or a Styrofoam 'broccoli box' (free from a greengrocer). Do not use metal containers or tins, and do not use buckets that have had paint in them!
- > some sort of heavy cloth or natural fibre, such as a quarter of an old woollen blanket, a hessian sack, or a coconut coir fibre mat like a tree planting mat
- > worms of the variety specially used for worm farms (red wigglers or tiger worms in Australia) – you can ask on gardening and sustainability groups online as people will often give them to you for free
- > kitchen scraps and half a bucket of wet cardboard, newspaper or straw
- > gravel or grit (about half a bucket, depending on the size of your container)

WHAT TO DO

01

Learn from the experts. Watch these short videos on the different kinds of worm farms that can be made, mostly from free or repurposed materials.

- > Gardening Australia – Three Ways to Build a Worm Farm (video, duration: 6:10):
<https://youtu.be/CvCCuvi6eHw>
- > Planet Ark – Costa's Guide to Worm Farming and Compost (video, duration: 3:32):
https://youtu.be/Zrzeb_75-vE

02

Decide what kind of worm farm to make. How much kitchen waste do you produce per week? What size of container do you have access to, and how big is your garden or balcony? These kinds of questions help you to work out what to start with. If you have a large household, a worm farm may not take all of your kitchen scraps, but having one will reduce your food waste and is a great step to take.

WHAT TO DO CONT:

03

Gather the materials. Check the list above and the resources shown in the videos. What can you repurpose? Recycling materials for your worm farm is a great way to go!

04

Focus on drainage and temperature. Worms are sensitive creatures who get easily offended... Just kidding. They are very sensitive to heat and cold, and they die if they dry out or if they get completely waterlogged. So, drainage and the position of your worm farm are the two MOST important things to get right.

In the first video, see how Millie drills holes in the bottom of the sunken bucket worm farm? That's for drainage (and the surrounding soil keeps the worms at a nice steady temperature).

If you're making a worm farm in a bin or box, you definitely need drainage holes plus some gravel, and a layer of natural textile (like an old cotton sheet) above the gravel, to allow water to flow down and away from the worms. Don't be a worm-murderer – get the drainage right and place the worm farm somewhere where it will stay cool on hot days. You might even want to shade it with a blanket which will help keep it from heating up,

05

Find your new pets. You can buy worms from hardware stores. You can also nearly always get free worms from people with established worm farms. Try asking in online gardening, sustainability, permaculture and zero waste groups. Go local (as worms can die in the post). Ask at the Community House, or put a notice up in the library if having trouble.

06

Settle them in! On moving day, make sure your worm farm drainage is good, and that the box or bin is in its final location. Wet some cardboard scraps (the brown kind of cardboard, not shiny and no plastic tape), scrunch up and wet some newspaper, or wet some old straw or hay in a bucket of water until you can squeeze water out of it like a sponge. Place a layer of this in the bottom of your worm farm. Place a small amount (a couple of trowels full) of garden soil on top (this gives the worms grit for their guts to help them digest), and then a bucket or half bucket of kitchen scraps on top (see the list of 'GOOD and NOT GOOD' items below). Pop your worms on top and water the farm gently just enough to moisten (not drown) it, and place your chosen fabric covering on top (hessian sack, old blanket – a wet cardboard box works in a pinch). Put on the lid and let them get cosy!

07

Feed and water your worm farm. Worms of the heavy-feeding worm compost types (tiger and red wigglers) eat a lot more than ordinary earthworms, but even so, they can only eat their body weight in kitchen scraps per day. Many people over-feed the worm farm, which leads to uneaten food rotting, which smells and attracts flies. Hold back!! Only feed the farm 1-2 times per week, and if there is still plenty of food that is recognisable for what it was (i.e. has not turned to brown, crumbly worm castings), then wait. Maybe start another farm or have a compost pile going. Look at the worm farm and let the worms tell you the pace – they will breed and numbers, and speed, will go up – but each farm is different.

While you wait, here's a fascinating time-lapse of a worm farm in action:

➤ Worm farm 8-week time lapse (video, duration: 5:28):

<https://youtu.be/kh-XtMapkDc>

When you add kitchen scraps to the farm, add some carbon material such as sawdust, ripped-up brown cardboard, or wet straw. Water the farm very gently for a moment (don't drown it).

08

Check up on the colony. The smell of a worm farm with its drainage hole plugged is, once smelled, never forgotten. Don't be this person – check the drainage and drill new holes if needed. Or lift out the worms, hose out the farm, and re-open closed drainage holes. You should check that the worm farm is draining well each time you add food, and take action immediately if drainage is blocked.

WHAT TO DO CONT:

09

Harvest the black gold. Place a bucket or container under the tap if there is one, or collect the worm liquid ('worm tea') from the farm if it is not dug into the soil. Harvest the dark brown, crumbly worm castings occasionally (to get worms out of the way, expose half the surface to light – worms will move to the shaded half and you can scoop out the worm castings). This material is AMAZING for plants. It has all the beneficial microbes from the worm's digestive system, plus the nutrients from the original materials. Place a small amount around plants in the garden, or mix it with water in a 1:10 ratio (same as for the worm tea) and water your plants in pots (indoor and out) once a month with the black gold.

10

Things that are good and not good for worm farms:



GOOD: all kinds of vegetable scraps and skins except onion, lemon and orange. Wet brown cardboard. Wet straw and hay. Wet dead grass (not live). A little bit of soil. Old bread and cake, broken into pieces. Egg shells only if washed and scrunched up. Horse and cow manure.



NOT GOOD: all kinds of meat, dairy or cheese. Eggs. Citrus and onions. Wood ash and white paper unless in tiny amounts. Shiny paper, printed boxes. Dog poo. Plastic.



GOT IT?

> You've got a worm farm in a nice, shaded place, all set up and snacking on your scraps so that they don't go into rubbish. Great work for the planet!



TRY THIS

If you feel like you've nailed it but you want to level up, try this:

- > Gather the materials and make a second worm farm of a different type.

SO WHAT?

- > A worm farm reduces your waste and helps the planet.
- > The worm tea and worm casting from a worm farm are fabulous fertiliser for plants.

WHAT ACTION WILL YOU TAKE?

- Gather the resources to make one kind of worm farm.
- Look for a source of compost worms.
- Set up your worm farm!



IF YOU LIKED THIS ONE YOU MIGHT WANT TO TRY...

- > How to Grow Your Own Food
- > How to Make Flatbread
- > How to Sew Your Own Clothes
- > How to Be More Creative
- > How to Take Better Pictures