

Worm Farming: Vermiculture

Sustainable Living Workshop

Did you know a worm can eat it's own weight in food every day?

Vermiculture is a great way to reduce your household waste. Provided you have a sheltered position, a worm farm is simple to maintain and produces valuable fertiliser.

What do I need?

- Red compost worms - minimum 1000;
- Kitchen food scraps;
- Paper and a worm blanket;
- Coconut fibre, compost, hay or composted manures for bedding.

How do I get started?

Find a suitable location

Worms are seasonal creatures. In summer; keep your worms in a cool, sheltered environment away from direct sunlight. In the colder months, move them into a sunny area to keep them productive. Where possible, place the worm farm close to your kitchen so it's convenient to maintain and add kitchen food scraps.

Set up a worm farm

The easiest way to get started is to buy a commercially made worm farm. These usually have 2-3 trays and a base for drainage.

1

Soak the bedding block included with your farm for 30 minutes before spreading it evenly over the middle tray. Alternatively, a layer of compost, manure or hay can also be used as bedding for your worms. Be sure to wet the bedding - it should be moist like a wrung out sponge.

2

The best kind of worm to use is the red compost worm. Add your worms and sufficient food while they settle into their new home. Then cover them with a well-soaked worm blanket. This will help maintain a constant temperature in the worm farm. Replace the worm farm lid and your worm farm is complete. Be sure to keep your farm out of the hot sun and heavy rain.



If everyone had a worm farm our compostable garbage would be reduced by one tonne per person, per year. *Source: ABC Gardening Australia*

Feeding your worms

YES

Fruit (except citrus), vegetables (except onions), tea leaves, tea bags, coffee grounds and filters, milled eggshells, moist shredded paper and cardboard, egg cartons (torn & soaked), hair clippings. Well-composted animal manures - cow, or horse.

NO

Meat, poultry, fish, dairy foods, oils or fats, garlic, chilli, citrus fruits, pineapples, plants from the onion family (garlic, shallots, leek) vinegar or salad dressing, confectionary, dog & cat faeces.



Feeding

Each day a worm will consume approximately its body weight in food. This means you can feed your worm farm a few handfuls every few days. Once it's established and the worms are breeding, they can be fed a greater quantity.

Cut food into small pieces or puree in a food processor. This makes it easier for the worms to eat and increases worm farm productivity.

Harvesting the results

Your worm farm will produce two types of valuable fertiliser.

Liquid fertiliser

Worm leachate will collect at the bottom of the worm farm. To harvest, simply leave the tap at the base of your worm farm on at all times to allow drainage into a container. Dilute one part leachate to eight parts water for a rich garden fertiliser.

Solid fertiliser

Vermicasting also known as worm castings will develop in the layers where your worms live – that is the upper and middle layers of the worm farm. Castings look like rich, dark soil and may be harvested every 4-6 months.

In Summary

Worms need to be kept cool. The ideal temperature range is 18-25 degrees Celsius. The worm farm bedding should be moist but not too wet and away from direct light. Compost worms need to be fed the right food in order to thrive. Happy worm farming!



Healthy, heirloom broccoli grown with vermiculture fertilisers, Victor Harbor, 2013.

If your worm farming is smelling bad

A well managed worm farm should smell pleasantly earthy. Your worm farm can start to smell if the worms are being over fed or if the worm farm is too wet. If your farm has a bad smell, remove any rotting food. The bedding can be also be gently aerated with a garden fork and moistened newspaper added to help counter the affects of overfeeding. Make sure the worm farm is well drained. If it is too wet the worms may drown.

Crushed eggs shells will help maintain the bedding at a safe pH level. Otherwise the bedding may become too acidic. In addition, a sprinkle of lime or dolomite is recommended to maintain a healthy worm farm pH level. Most importantly, worms are more likely to breed in a healthy environment.

Why are there vinegar flies in my worm farm?

A well-managed worm farm shouldn't attract vinegar flies as they have difficulty breeding where food is being readily consumed by worms. However, if flies do become a problem reduce food quantity, use a couple of worm blankets and cover the worm farm itself with a layer of hessian.

How do I stop pests invading my worm farm?

Ants are often an indication that a worm farm is too dry. If they become a problem, just add water using a watering can. The legs of a worm farm can also be placed in individual water bowls. This will keep unwanted creatures including ants and cockroaches away.

What happens when you go away on holiday?

Worms can usually survive for four weeks without fresh food. Place damp paper in the worm farm and leave in a cool location. The worm farm tap should be left in the 'on' position with a container underneath the tap to collect the liquid fertiliser.