

# How to build a simple wormery

Select a container for keeping worms. A polystyrene foam fruit box, with drainage holes, found in fruit shops is ideal.

## What to do:

1. Wash the box thoroughly, then line it with a few sheets of newspaper.
2. Half fill the box with well-rotted compost. This should be quite moist, but not soggy.
3. Add compost worms. It's best to start with at least 2,000 worms. (These worms will breed and multiply to about 8,000 worms in 6 months)
4. Cover the box with a layer of hessian, and water well.
5. Each week, add fruit and vegetable scraps. (Add about 1.5 kg of food in the first week, then as the worms start to multiply gradually increase the amount to about 7 kg a week at six months.)
6. Add some water every few days or when necessary, to prevent the compost from drying out. You will need to add more water on hot, windy days. It is important to keep the wormery moist, as if it dries out, the worms may die. Ideally, the hessian should feel damp. Don't forget that there is a lot of water bound up in food scraps. Being too wet is as bad as too dry. The compost should be moist, not soggy.
7. After six months, it will probably be necessary to start another box. Half fill a second fruit box with compost, and carefully transfer the top half of the first box to the second. At this stage, you have a number of choices. These are:
  - a) Add fruit and vegetable scraps to the second box only. The material in the bottom of the first box is now almost pure worm casting, with very few worms. It could be used in the garden in the same way as compost or mixed with commercial potting mixes to pot up plants.
  - b) Place the two boxes side by side on the ground and feed both with food scraps.
  - c) Fill the first box with compost, place the second box on top of the first and add food scraps to the top box only. The worms will migrate up through the holes in the base of the second box to feed.If you have too many worms, you could give some away to friends so that they could start their own wormery. **Note.** Be aware that there is a lot of variation in printed materials about wormeries. This sheet provides information that is believed to be commonly accepted practices. Thanks to Phil Staggart of Organic Waste Management for his advice.

## Worm facts

- Earthworms are hermaphrodites. That is, each worm has both male and female sex organs.
- All worms can have babies. After mating, a worm will form a capsule (or cocoon) containing eggs. In about 21 days, 2-20 baby worms will hatch from the capsule. In about 2-3 months, the young worms are ready to breed.
- Earthworm eggs can survive in very dry conditions for a long time, the baby worms hatching out when the soil becomes wet.
- Compost worms breed every 7-10 days and so the population in a wormery will double in 2-3 months.
- Compost worms can eat about half their body weight in food in one day.
- Earthworms have no eyes, but can sense vibrations, light and temperature through special organs in the skin.
- Earthworms can live up to 15 years.
- Earthworms breathe through their skin and expel urine through special pores.
- There are 350 species of earthworms in Australia. Most compost worms and earthworms found on farms and in gardens are introduced species. Compost worms are rarely found in the bush as the conditions there are not suitable. (Adapted from Christenson and McLachlan.)

## About wormeries

- The size of worms in a wormery is a good indicator of how well they are being fed. With insufficient food, the worms will be smaller than normal.
- If a wormery becomes overpopulated, the worms will stop breeding, until some worms are removed.
- Worms apparently do not breed in organic waste and will move away from the food source to breed. Therefore, it is important to provide a bedding mix that is not as fresh as the main food source. The best material for this is well rotted compost placed over a layer of newspaper and cardboard - a great way to use up compost produced from garden waste.
- Worms will eat any type of vegetable and fruit scraps, animal manure, leaves and will even eat damp cardboard.
- Many Councils sell wormeries and/or worms to residents or schools in their city or shire, at discounted rates. Some Councils even give these away free of charge to schools. Check with your Council.
- The worms in a small wormery should eat all the fruit and vegetable waste produced by a household of four. Wormeries are ideal for people living in flats or houses with small backyards.
- The worms in a single wormery should also eat all the fruit and vegetable scraps of an average size school class. (Plastic worm factories are ideal for a class as they are easily transported to a student

or teacher's home for the holidays. More permanent wormeries pose a problem during holiday periods, as the worms must be watered every few days and fed once a week.)

- To collect the worms from an established bin, place the worms and the castings onto a piece of shade cloth held over a tray. The worms will migrate through the shade cloth to the tray below.
- Don't place wormeries with open bases close to trees, otherwise the roots of the tree will invade the bin, seeking out water and nutrients.

To get worms contact a local farmer and get some worm rich rotting animal bedding or see our other document "Where to get worms and wormeries".