



## Residents' Guide to Worm Farming



Learn how to create and maintain a  
**healthy worm farm**



## The environment says thank you

If you wish to setup and maintain an effective worm farm, the **Residents' Guide to Worm Farming** will help you achieve just that.

Worm composting is a method for recycling food waste into a rich, dark, earth-smelling soil conditioner. It will provide nutrients for your plants and will help the soil hold moisture.

Composting with worms avoids the needless disposal of organic materials while creating the benefit of high-quality compost. When cared for properly, worms process food quickly, transforming food waste into nutrient-rich 'castings'. Worm castings are an excellent fertilizer additive for gardens or potted plants.

Worm compost can be:

- Mixed with potting soil and used for houseplants and patio containers.
- Used as mulch (spread in a layer on top of the soil) for potted plants.
- Finely sprinkled on lawns as a conditioner.
- Used directly in the garden around existing plants or dug into the soil.
- Made into liquid fertiliser by being mixed with water until it is the colour of weak tea.
- Moisture-drained from the worm farm's bottom crate, which is also a good liquid fertiliser, once diluted.

We wish you all the best on your worm farming adventure.

**For more information**, visit [cleanup.org.au/au/LivingGreener](http://cleanup.org.au/au/LivingGreener) or contact Council's Customer Service Centre on 5220 7111 and ask to speak with the Waste Management Coordinator.



## Step 1: Establish your worm farming container

You can purchase a ready-made worm farming bin, or design and build your own. The important thing is to locate your worm farm in a cool, shady place in your garden.

### Wheelie bin

A popular worm farming container is a wheelie bin.

1. Place a plastic milk crate inside the bin. If you can't get a milk crate of the right size, lay some heavy weld mesh about two thirds down. Bend the edge of the mesh so it sits firmly inside the wheelie bin. Lay some small bird wire over the mesh to hold the scraps and worms in the top section. Any worms that fall through will climb back up.
2. A perforated black drainage pipe should be poked through a hole cut in the weldmesh and also through a hole cut in the side of the wheelie bin (near the top). Cover the end of the drainage pipe (the bit sticking out of the hole in the wheelie bin) with fly wire. This is to keep the worms and scraps well-aerated, stopping blowflies from accessing the food matter.
3. Drill a hole into the bottom of the back of the wheelie bin and then insert a length of ordinary garden hose through the hole. Use silicone to secure into place. This process allows access water and valuable worm juice to be collected for use on the garden. Make the hose long enough so it is easy to syphon/drain off the liquid.
4. Cut a door into the front panel of the bin and attach hinges and a bolt to keep it shut. Use small bolts and nuts to attach them.



## Step 2: Make the bed

It's vital that your worms are given the environment they need to be healthy and active. This is why the bedding mix is important.

The worms' skin must be moist for respiration to occur. A moisture content of approximately 75% can be achieved by mixing three parts water to one part bedding material. The bedding should be damp but not sopping wet.

Newspaper is an ideal bedding material because it is readily available, provides excellent moisture retention and preparation is relatively simple.

### To make your bedding mix, you will need:

- 2kg newspaper (black & white only)
- 4L cool tap water
- 1 handful of garden soil (potting soil may contain chemicals), and
- 1 crushed egg shell (necessary for reproduction).

### Instructions

1. Shred the newspaper by fully opening a section, tearing it lengthwise down the centrefold, gathering the two halves, tearing them lengthwise again, and repeating the process until you have strips ranging from 1/2 inches to 2 inches wide.
2. Gradually mix the water with the shredded newspaper (directly into the bin or into a garbage bag to ensure a uniform moistening of the newspaper.
3. Mix in the garden soil and crushed egg shell.



### Step 3: Introduce your worms

The best kind of earthworm to use is the redworm. These worms are incredible garbage eaters! They eat and expel their own weight every day, so even a small bin of redworms will yield large quantities of rich sweet-smelling compost. Other types of worms can still be used for an effective worm farm.

You can buy worms from Bunnings and online from:

- [www.ecovalleyworms.com.au](http://www.ecovalleyworms.com.au)
- [www.compostinghome.com.au](http://www.compostinghome.com.au)

Carefully place your worms into your worm farm and leave the lid off and a light on for an hour so they become accustomed to their new home.

When you add the worms they will quickly crawl down into the bedding as they don't like light.

You are now ready to start feeding!



## Step 4: Feed your worms

Here's a menu of foods that help optimise your worms' health:

- Fruit (except citrus)
- Vegetables (except onions)
- Coffee grounds and filter
- Tea bags
- Crushed egg shells
- Leaves
- Shredded paper.



### Foods to avoid:

- Heavily salted foods, such as salted peanuts and potato chips
- Oily foods
- Meat, poultry or fish
- Dairy
- Manure from dogs, cats, or horses
- Animal feeds
- Grass clippings
- Plants from the onion family: garlic, shallots, leek.

Numerous variables affect how much your worms will eat. For example, they are more active at room temperature than at 40 degrees. A general rule is that they will consume approximately half their body weight in food waste per day.

## Step 5: Protect and upkeep your worms

Cover the worm farm with newspaper or a piece of hessian – this will help keep a constant temperature in the worm farm.

Add water to the box whenever it begins to get dry. It should be the consistency of a lightly squeezed sponge – too much moisture may kill the worms.

Be sure to keep your worm farm out of hot sun and heavy rain.

## Step 6: Harvest the worm castings

After a few months, your worm farm will be ready to harvest. There should be little or no original bedding visible in the bin and the contents will be brown and earthy-looking worm castings. There are various ways you can harvest your worm castings:

### Method A

This is a simple way to harvest your worm castings. Move the contents of the bin to one side. Add fresh bedding and food to the vacant side. The worms will move from the finished compost in search of food. After a few days you should be able to remove the older, worm free compost.

### Method B

Another option is to add 2/3 of the castings (worms and all) directly to your garden. Add the remaining 1/3 to your fresh bedding. This will inoculate the bin and provide some worms to get you going again, but it depletes your worm population for a while.

### Method C

Alternatively, you can relocate the contents of the bin into a large plastic sheet, and separate into small piles. Place a bright light above the sheet. The worms will move down away from the light allowing you to collect the compost. To harvest this way, you will need:

- 1 plastic sheet (about 3' X 3')
  - Light source (lamp or sunlight)
  - Bucket or other container to hold castings
  - Fresh bedding.
1. Empty the contents of the worm farm onto the plastic sheet.
  2. Rinse out the bin and reassemble
  3. Add fresh bedding to the bin. You may also want to add food at this time.
  4. Position the light source over the pile of castings. The worms will move down into the casting to escape the light.
  5. Pick the castings from the pile in layers, working towards the bottom centre of the pile. You can wear rubber gloves. Deposit the castings into a bucket or other container. Continue this procedure until there is only a small pile of castings with worms beneath it.
  6. Add this pile, including worms, to the fresh bedding in the worm farm.
  7. Use the harvested castings in your potted plants, flowers or vegetable garden.
  8. Begin the feeding cycle again.

