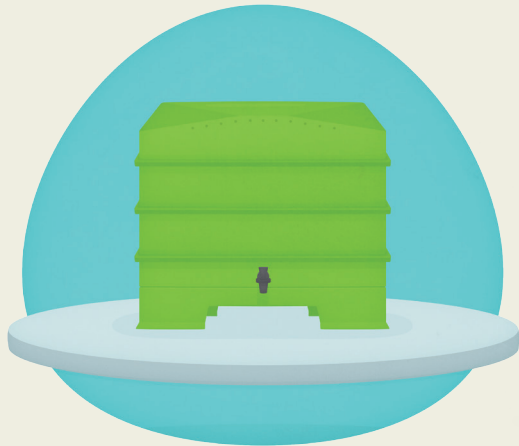


# Join the **Compost** **Revolution**



## Wormfarming

The worms in worm farms break down your food scraps by eating the microorganisms that eat your food. Worm farms work well for apartments and children love them.

Worm farms need a very sheltered location and cannot process as much material as a compost bin.

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## 1 The basics

## 1 The basics

The secret to a happy worm farm is healthy, happy worms.

Worms eat the bacteria that break down your food scraps and keep the bacteria balanced.

You'll find worms easy to look after if you remember they have sensitive skin so need: a comfortable temperature, darkness, and to be kept moist but not too wet.



Worms need: air, moisture, food, and shelter protected from the sun and rain.

## 1 The basics



### Tips

**Shelter** – Your worm farm is best kept sheltered from the elements and away from the sun.

**Food** – Feed your worm farm small amounts of fruit and vegetable scraps, but no garden scraps!

**Air** – Make sure you protect your worm farm from rain and harvest the worm tea regularly so it doesn't fill up with liquid.

**Moisture** – Pour 1 litre of water through your worm farm each week to keep it moist, but not too wet.

## 1 The basics



### Did you know?

- ✓ Worms eat their body weight in food each day. Although they are not actually eating the food, but the bacteria on the surface of the food.
- ✓ The worms in worm farms are a mix of earthworm breeds called "compost worms".
- ✓ Worms in worm farms self-regulate their population, only breeding within the boundaries of the amount of space and food you give them.

## 2 The perfect home

Worms need to be protected from the sun, rain and wind, so the location of your worm farm is important.

Your worm farm will come with instructions for assembling the trays, legs, tap and lid.

Here are some extra tricks that will keep your new army of worms happy and healthy!

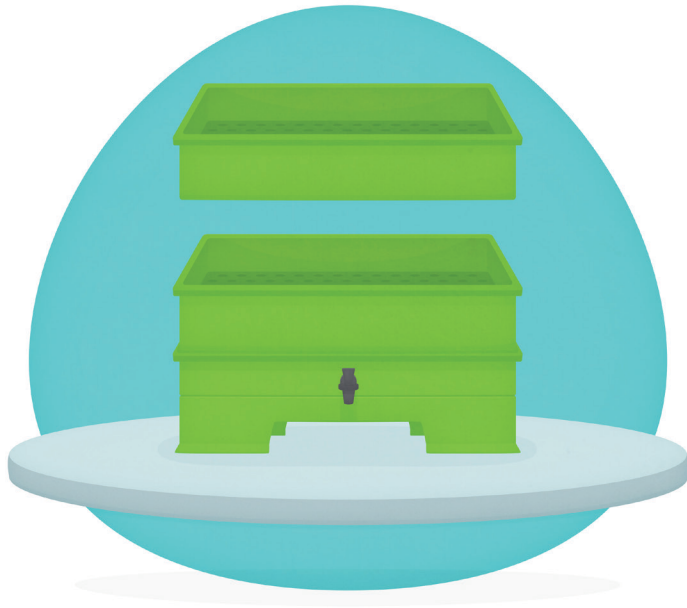
## 2 The perfect home



### Choose a sheltered place

Worm farms are best kept inside or sheltered from the rain and too much sun. Kitchens, balconies, laundries and garages are all good choices.

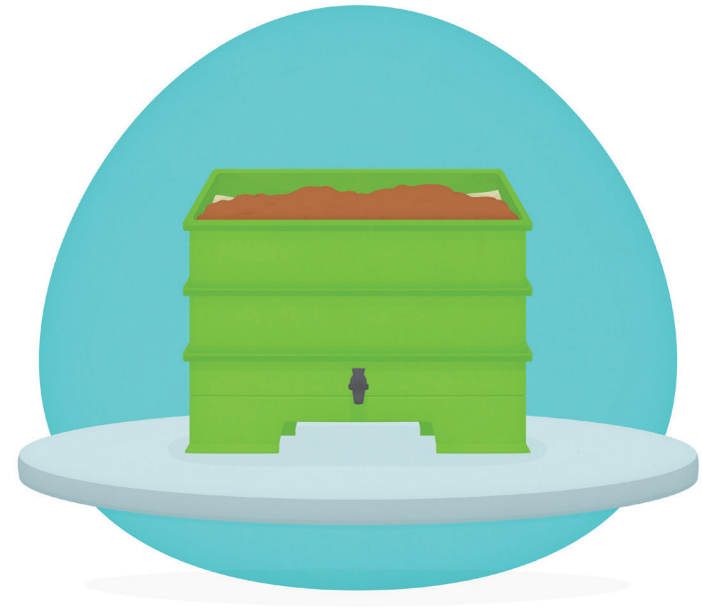
## ② The perfect home



### Set up your worm farm

The middle and upper trays are the places where worms live and eat. These trays have holes that allow the worms to move up and down. Worm liquid or “worm tea” collects in the bottom tray and can be drained through the built-in tap.

## ② The perfect home



### Create some habitat

Line the top tray with a few sheets of newspaper.  
Soak some coconut peat, shredded paper or pure compost in a bucket until soft and pour it in the top tray for the worms to live in.

## ② The perfect home



### Add the worms

Add your worms to the habitat you've created in the top tray. Cover them with a worm blanket, clean old cloth, damp newspaper or hessian sack. Allow worms to settle for a week before you start feeding them.

## ② The perfect home



### Tips

Avoid direct sun, especially in summer. Worms will die if they get too hot. Place two margarine container-sized ice blocks in the worm farm on days over 40 degrees.

Place a brick on top of the worm farm lid if you have problems with the wind or animals knocking it off.

If you need more worms you can take a handful or two from a friend's worm farm without any harm because both populations will breed and recover.

## 2 The perfect home



### Did you know?

If you don't have shelter you can still keep a worm farm. You can:

- ✓ Pick the most sheltered spot you have available.
- ✓ Drape a light-coloured towel or similar over the whole worm farm to shelter it from wind and sun.
- ✓ Wet this towel on hot summer days to keep your worm farm nice and cool.
- ✓ Leave the tap open at all times to prevent it filling up with rain and drowning your worms.

## 3 Worm food

Feed your worms a diet of mostly fruit and vegetables.

### ③ Worm food



#### Worms like to eat

Fruit and vegetable scraps, eggshells, tea bags and coffee grounds. These things are okay in small amounts: carbohydrates, old paper towels, hair and cooked food.

### ③ Worm food



#### Worms don't like

Oranges or lemons, onion, garlic or chilli. Protein rich foods like meat, bones, fish, tofu, beans or dairy. Garden scraps like leaves and grass.



### 3 Worm food



#### Tips

Cut the food scraps very small. The smaller the pieces, the faster the worms will eat them. Some people even blend their food scraps in the food processor or blender to get their worms working really fast.

Start out with fruit and vegetable peels only. Once your worm farm is well established, begin to add small amounts of cooked food, dairy, and juice to it.

Add plenty of liquid (like old tea and drinks) to your worm farm. Otherwise, you may need to pour water over the worms once or twice a week in summer to keep them moist.

### 4 Avoiding problems

Worm farms are easy to look after and shouldn't become smelly or attract pests. If a problem does occur, you might want to try one of these solutions.

## ④ Avoiding problems



### Vinegar flies

These tiny annoying flies are a symptom of food rotting before worms get to it. Only feed worms as much as they can eat and chop food into small pieces. Cover your worms with a worm blanket, old cloth, damp newspaper or hessian sack.

## ④ Avoiding problems



### Smells

Tangy smells mean acidity. Treat like vinegar flies plus sprinkle on a tablespoon of ash, dolomite or lime if smells persist. Avoid adding animal products. Boggy smells mean a blocked drain or drowned worms. Check the drain and shelter from rain.

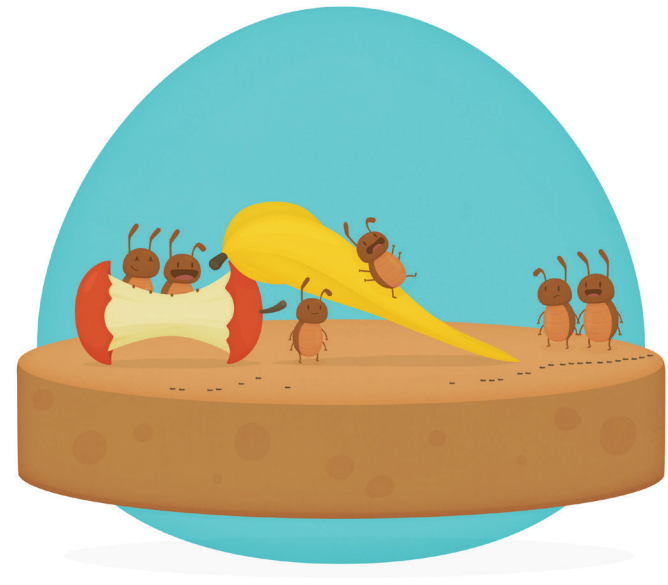
## 4 Avoiding problems



### Slow worms

Check you still have plenty of living worms. Only feed as much as they eat, give them time to breed and gradually start feeding them more. Add more worms if needed. Take out food that has fluffy mould on it because they won't eat it.

## 4 Avoiding problems



### Ants or cockroaches

Ants or cockroaches indicate your worm farm is too dry. Pour water over the worm farm and gently stir to chase them out without hurting the worms. To prevent ants getting in, put the legs in jars of water with a drop of oil.

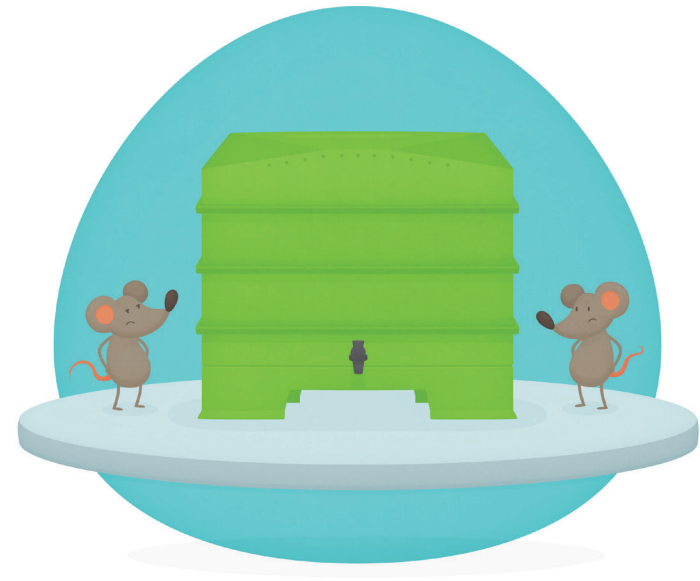
## ④ Avoiding problems



### Maggots

This means some meat or dairy probably went into the worm farm. Place a piece of bread soaked in milk inside the worm farm overnight. The maggots will be attracted to it and you can pull it out with them attached.

## ④ Avoiding problems



### Mice

Stop feeding the worms for a week and just add wet newspaper. Check there are no holes allowing mice to get in. Peppermint oil on the outside of the worm farm can deter rats.

## 4 Avoiding problems



### Tips

- ✓ Chopping food scraps into small pieces helps worms eat them faster.
- ✓ The worst case for any scenario is simple - empty the worm farm and start again with some new worms.
- ✓ Worm farms generally service a small family. If your household is larger and you wish to compost all of your scraps, you should get a compost bin or second worm farm.
- ✓ It's best to avoid food waste in the first place by planning your weekly meals in advance. To learn more visit:

Love Food Hate Waste Website  
[lovefoodhatewaste.nsw.gov.au](http://lovefoodhatewaste.nsw.gov.au)

Food Lovers Republic  
[foodloversrepublic.com.au](http://foodloversrepublic.com.au)

## 4 Avoiding problems



### Did you know?

Worm farms aren't home to just worms. You'll see lots of other tiny creatures that are part of a healthy system including: springtails, earwigs, mites and microorganisms like bacteria.

## 5 Feeding your worms

## 5 Feeding your worms

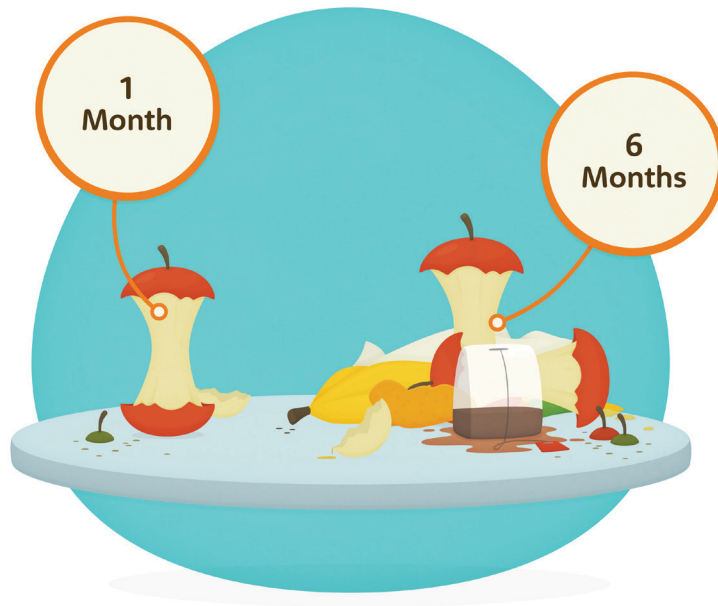
Place small amounts of food scraps in the top of your worm farm. Increase the amount of food and rotate the trays as your worm farm grows.



### Feeding time

Peel back the worm blanket, newspaper, hessian or cloth cover. Sprinkle the food over the top and then replace the cover.

## 5 Feeding your worms



### The right amount

Your worm army starts small but breeds quickly. They'll eat almost 1 litre a week the first month, then 2 litres each week over the next couple of months. They'll eventually eat a maximum of 6 litres a week.

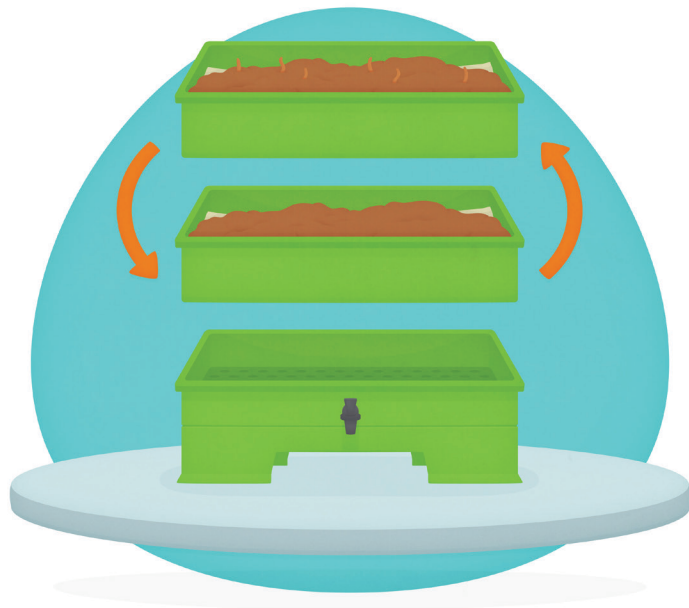
## 5 Feeding your worms



### Adding new trays

After a few months the top tray will fill up with worm castings. Place an empty tray on top of it. Ensure the new tray touches the top of the old food so the worms can reach it.

## 5 Feeding your worms



### Rotating trays

Eventually the new tray on top will also fill up. Your hardworking worms will have made room in the older trays - so rotate the bottom tray back to the top. This cycle can continue for 1- 3 years before harvesting of the castings is required.

## 5 Feeding your worms



### Tips

- ✓ Worms will get through food faster if it's cut into small pieces, so avoid giving them fruit or vegetables whole.
- ✓ You don't need to wait until they eat everything before you add more, but don't add more unless the food looks like it's being eaten. It will appear darker and will have reduced in volume.
- ✓ To keep your worms moist and prevent flies, cover the top tray with something damp like a worm blanket, soaked newspaper, hessian sack or a cloth.
- ✓ Rinse your food scraps container in the garden and pour the water through your worm farm or on plants so you don't waste water.



## 5 Feeding your worms



### Did you know?

If you go on holidays your worms will be okay without food for a month or so if you leave them with lots of damp newspaper. Make sure they are located somewhere shady, cool, and out of the rain. Try the bathroom if you are away in summer.

## 6 Harvest time

Worm farms provide plenty of worm tea on tap. This is a super-rich liquid fertilizer and should be heavily diluted with water.

Worm farms also provide solids (worm castings or worm poo) that you can harvest and use as a fertiliser after mixing with soil.

## ⑥ Harvest time



### Collecting the liquid

Turn the tap on to collect the worm tea. Add water until it dilutes to the colour of weak tea. Add the liquid to a watering can and water your plants.

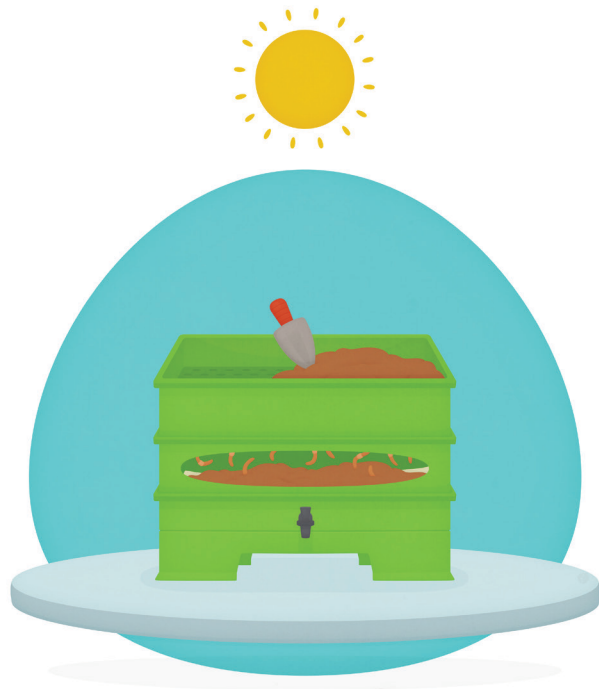
## ⑥ Harvest time



### Collecting the solids, step 1

Swap the trays so that the one with the most worm castings is on the top, then remove the lid and leave the tray in the sun for about 20 minutes. The worms will burrow down to avoid the light.

## ⑥ Harvest time



### Collecting the solids, step 2

To avoid taking too many worms, slowly scrape off the worm castings, allowing the worms to burrow deeper. Mix the castings with an equal amount of soil before use and always cover with mulch.

## ⑥ Harvest time



### Tips

- ✓ You can store worm tea in glass bottles or plastic containers, but remember to label them!
- ✓ Spray worm tea on the leaves of plants make the leaves healthier and stronger and protect them from pests.
- ✓ You don't need to worry about emptying the worm castings more than every 6 months. When you do, add more soaked, shredded paper as bedding for the worms.
- ✓ Worm castings need to be used once harvested or they will dry out.

## 6 Harvest time



### Did you know?

Worm tea and castings are more than chemical fertilisers. They add lots of beneficial microorganisms that create healthy, fertile soil.

Mix your worm castings with soil in a 1:1 ratio and spread around plants. Make a potting mix by mixing 1 part worm castings with 4 parts soil, compost, sand or vermiculite.

Note: Sandy soils don't have enough structure or biology to retain these nutrients. To transform sandy soils take a large amount of compost or mulch and combine it with worm tea and castings. By doing this you'll quickly start to build up rich, dark soil.

## Recycle your food scraps!

Get a discounted compost bin or worm farm from your council and reduce what you send to landfill by half.

Composting at home is easy to do and avoids transporting food scraps to landfill where they produce harmful greenhouse gases as they break down. Our quick tutorial will show you how to recycle your food scraps, reduce your environmental footprint and make rich fertiliser for your garden.

[www.compostrevolution.com.au](http://www.compostrevolution.com.au)

This project was supported by the Environmental Trust as part of the NSW EPA's Waste Less, Recycle More initiative, funded from the waste levy.

