

You can recycle your organics - worm farming

A HOW-TO GUIDE
to help you make
and use a worm farm
Keep this booklet handy for
easy reference

blue
mountain
City Council



Index

Introduction:	
Why recycle organics?	3
How can I recycle my organics?	3
Why worm farm?	4
The trays of a worm farm explained.....	5
What to feed your worms.....	6
What NOT to feed your worms	6
Common problems / mistakes.....	7
Where to get worms	7
Harvesting castings	8
How to use the worm castings.....	8
How to use the worm wee.....	8
Extra hints	9
How to make your own worm farm	10

Introduction

Why recycle organics?

Organic 'waste' is actually a valuable resource – garden clippings, food scraps and other organics (tissues, newspaper, hair and dust etc).

Approximately 60% of the material in our garbage bins is organic.

That's about 14,000 tonnes each year.

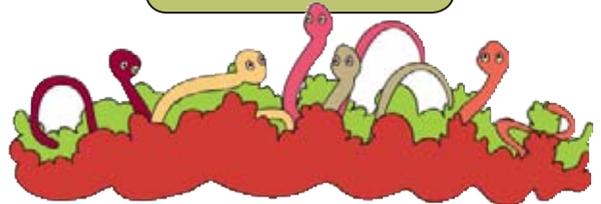
So, by recycling organics, we:

- Preserve our World Heritage environment
- Improve our gardens
- Limit our resource use

How can I recycle my organics?

- Make a low waste garden
- Make mulch
- Make compost
- Create a worm farm
or a combination of these to suit you

This booklet
will focus on
worm farming

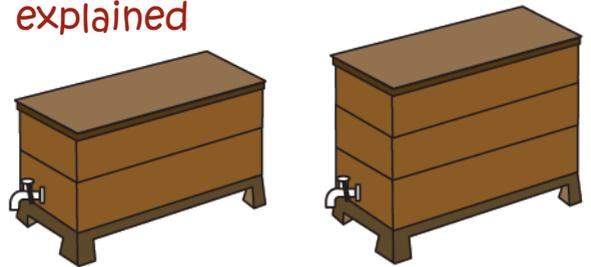


Why worm farm?

- Worms will recycle your food scraps into organic fertiliser
- Worms are said to eat half their own body weight each day
- Worm castings and worm wee are rich in nutrients
- Worm farms do not smell
- Worms will eat almost anything organic
- Worm farms are perfect for use in units, townhouses and homes with small yards

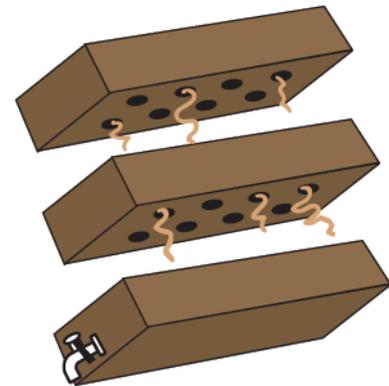


The trays of a worm farm explained



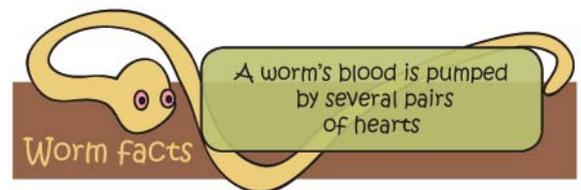
NOTE: your worm trays may look a little different to these but they work the same way. To make your own see page 10.

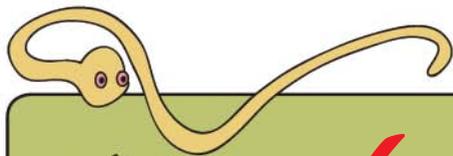
Worm farms consist of two or three stackable crates or bins, made from a waterproof material. The base bin has a solid floor to catch liquid run-off that drains down from upper bins.



The upper bins have holes in the floor, allowing drainage and the worms to wriggle through. Food is added to the top "food" bin. To start with you only have the base bin and one other bin.

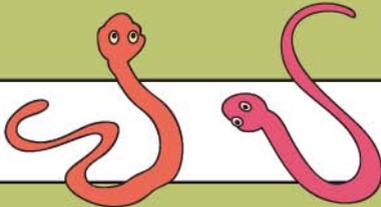
The top bin is both the bedding layer, where the worms live and the food layer where food is added. As castings begin to build up, another layer is added on top, where the food is placed and the worms wriggle up to eat it.





What to feed your worms

- ✓ Food scraps such as vegetables and fruit
- ✓ tea bags
- ✓ egg shells
- ✓ some bread
- ✓ hair
- ✓ shredded and soaked paper and cardboard (pizza boxes and egg cartons)
- ✓ cooked potato

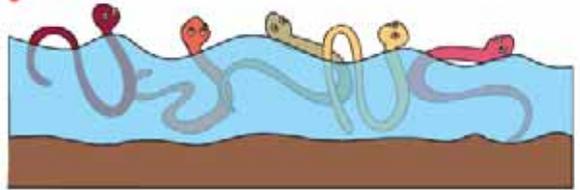


What not to feed your worms

- ✗ citrus fruits
- ✗ oily food
- ✗ chilli
- ✗ onions
- ✗ garlic
- ✗ meat, bones, fatty foods
- ✗ dairy foods
- ✗ raw potato



Common problems / mistakes



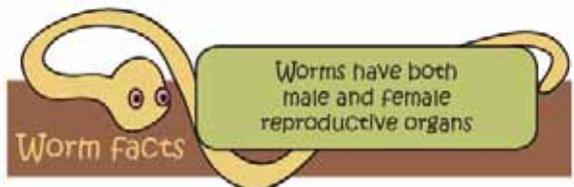
- ✗ Do not drown your worms - see Extra Hints on page 9 for solutions.



- ✗ Do not over-feed your worms - especially in the beginning. Feed them in small amounts and only feed them again when most of those food scraps have been eaten to avoid mould.

Where to get worms

Try your local nursery or hardware. Look under worms in the local paper or Yellow Pages or contact council for a list. Try to get ones that are bred nearby so they are acclimatised to your conditions.



Worm facts

Worms have both male and female reproductive organs

Harvesting Castings

1. Harvest the worm castings by moving it all to one side and adding fresh bedding to the empty side. After a few days many of the worms will have moved to the fresh bedding and you can take out the worm castings.
2. On a cool day, lay a tarpaulin in the shade and tip the worms and castings on to it. Cover one half of the castings over. The worms will move into this shaded area and you can take the vacated castings away.

What are worm castings?

Worm castings are worm poo.

Great fertilizer

Worms excrete a highly nitrous fertilizer (called castings), which contain much more nitrogen, phosphorous, magnesium, potash and calcium than found in topsoil.

How to use the worm castings

Castings can go straight in the garden or pot plants, either dug in or as a surface mulch. Place a handful of castings in a watering can and fill with water to make a liquid fertiliser to water plants.

How to use the worm wee



Worm wee is a great liquid fertiliser. It usually drains out dark brown to black. This needs to be diluted to the colour of a weak tea before use on your plants.

Extra hints

- Put a layer of old fly screen or shade cloth on the bottom layer to prevent the worms dropping through the drainage holes into the worm wee and drowning.
- Cover the food scraps with a hessian bag, old piece of carpet, cardboard or wad of newspaper. This will deter the little flies that are attracted to the smell of food scraps. It will also help to regulate the temperature of your worm farm.
- The smaller and softer the food scraps, the faster the worms can eat them. To really spoil your worms you can chop things up very small, or place your scraps in the microwave for 20 seconds to soften them up (let them cool again before feeding the worms).

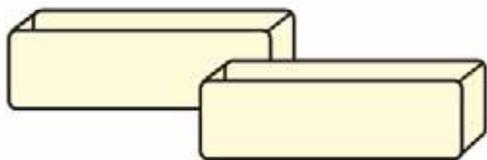


- Keep the worm farm under cover, out of the rain.
- During winter, cover the whole worm farm with an old blanket or hessian to help to keep warmth inside.
- Leave the tap on the box on, draining into a bottle, so liquid can't accumulate – this will prevent the worms drowning.

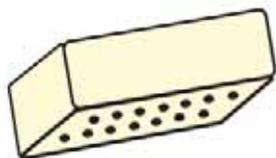


Make your own worm farm

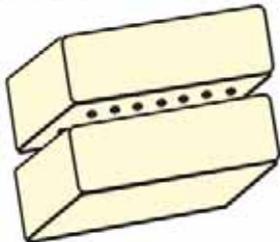
1. Get a couple of foam boxes from your green grocer. They need to stack one on top of the other well.



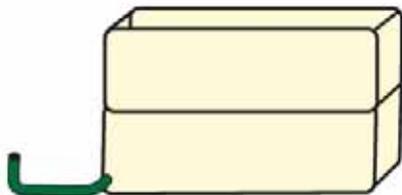
2. Make small holes in the bottom of one box to let liquid drain.



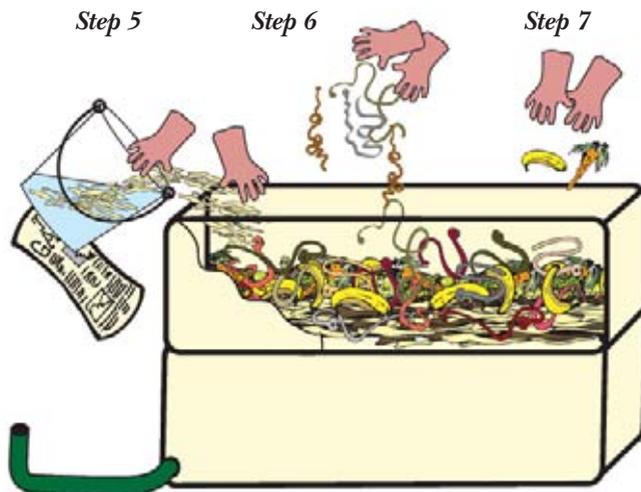
3. Place the box with holes on top of the other box without holes.



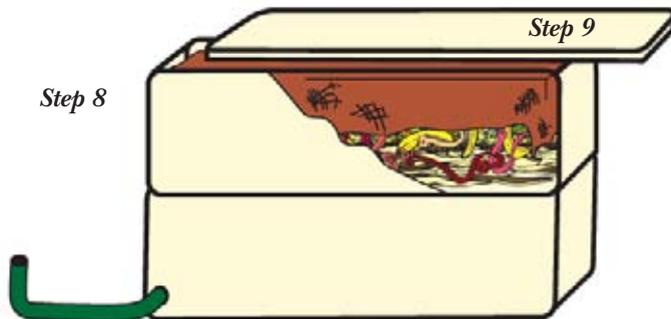
4. Make a tap in the bottom box to let the liquid drain out. Do this by poking a length of hose through one end. Turn the hose upwards to turn the tap "off".



5. Make the bedding by soaking shredded paper in a bucket of water and then put the soaked paper in the top box. You can also use compost, leaves, cardboard – anything organic.



6. Add about 1000 worms to the top of your worm farm.
7. Add food scraps – only small amounts at first until the worms breed to be able to eat more. (See page 6 for food.)



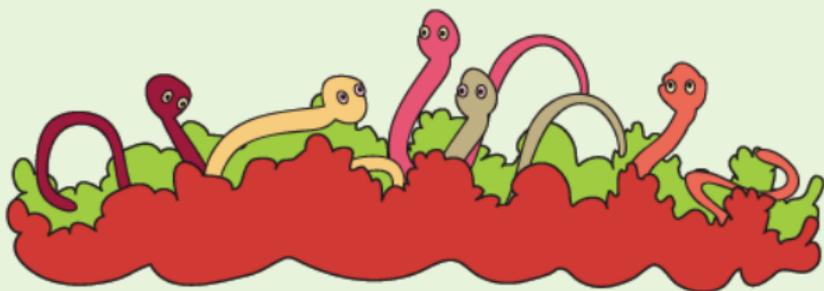
8. Cover the worm bed with newspaper or a piece of hessian.
9. If you are able to get a foam lid with the boxes from the green grocer, put this on too.
10. Keep protected from rain and heat. (See also Extra Hints on page 9.)

The Blue Mountains City Council website
has more information
you can download on recycling.

Visit us at
www.bmcc.nsw.gov.au



More information is also available at the
Department of Environment and Conservation
www.environment.nsw.gov.au
and at local libraries



©2006 Blue Mountains City Council

Brochure designed locally by Unicorn Graphics
Original illustrations Copyright 2006 Karen Curran
Brochure printed locally on recycled paper by Springwood Printing Company