

Environment B.OP's



Pollution Busters Club

Activity Sheet No. 2

How to make your own worm bin



Most people's rubbish bins look like this one below-do you think you can reduce how much you throw away? Recycling and composting can help reduce the rubbish you throw out.

Vermicomposting is composting using earthworms. Earthworms will eat anything that was once alive - called *organic waste*. Tiger worms live in your compost bin at home and make the vermicompost, which is a great food .

Getting Started

The first thing you have to do is find out how much stuff you throw away that could go in to the compost. This will tell you how big your worm bin will need to be to cope with all of your rubbish. Worms will eat all of your household's kitchen scraps, paper rubbish and garden rubbish. This is called organic waste. You will need to weigh your organic rubbish or measure the amount in litres.



How to make the worm bin

The worm bin doesn't have to be really flash. Use your recycling skills here as the worms don't mind what they live in.

Things to think about when you're looking for a worm bin:

- It doesn't need to be deep – 60cm to 1 metre high.
- It can be flat on the ground or with a bottom
- It will need a lid to keep the rain and pests out.

Suggested recycled bins are:

- Old fruit crates from fruit suppliers. Broken ones can be repaired.
- Old baths
- Use recycled timber or iron for the sides and lid of a bin.

You will also need:

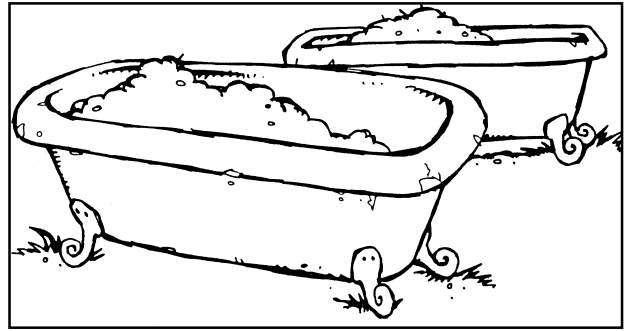
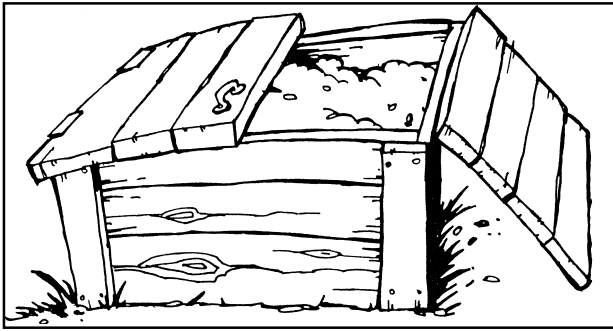
- Safe bedding for the worms, such as peat moss or compost.
- Black plastic, slightly smaller than the size of the lid.
- Old carpet or felt for the underside of the lid
- Dolomite or lime to 'sweeten' any acidic foods.

Getting it together

Now that you have decided on the size, shape and placement of your worm bin you will need to put it together. The next step is:

The bedding

The worms will need to have a 'safe' place to live when they are not eating your kitchen scraps. Peatmoss or well broken down compost, laid about 20cm deep in the bottom of your worm bin. Do a 'squeeze test' - pick up a handful of bedding and squeeze it. If only one or two drops of water come out you have got it just right. A sprinkle of Dolomite (Lime - ask your Mum or Dad to get you some of this) will be helpful just to make sure the bedding is not too acidic.



The worms

'Tiger Worms' are the composting worms you will find in your home compost bins. You can purchase worms from a worm farmer or bring some in from your home compost bins. You will need to weigh the worms to calculate how many there are and how much they will eat. Remember: 1kg = 4000 worms = 5kg food eaten a week.

Feeding the worms

By now you will have calculated how much food you will be feeding your worms. You will also have learnt that a good mix - 1 part Carbon (paper, leaves, etc) and 3 parts Nitrogen (green waste such as lawn clippings and food scraps) will keep the worms happy and well fed. Each week you will need to sprinkle the food with small amount of Dolomite to 'sweeten' any acidic foods.

There are two ways you can go about feeding your worms. The first is by feeding them everyday, or ever second day, in a different area of the bin. The second way is by storing the food in a pre-composting bin first then feeding it to the worms once a week.

The food is broken down and digested quicker if it is broken up into small pieces and is moist, so you will need to rip up and moisten your paper wastes.

A black plastic cover on top of the food will help it break down by keeping it dark and moist. Old carpet or underfelt on top of the plastic will help it stay moist and temperature controlled.

Your worm bin should not smell. If it does, you may need to add a little more Dolomite to 'sweeten' it, or you may be overfeeding and need to stop feeding for a few days. There may be a few very small vinegar flies around the decomposing food but the plastic, carpet and lid will deter any other pests from your bin.

Maintaining the worm bin

The key to taking care of your worms is to leave them alone as much as possible. But that doesn't mean you can ignore them!

Keep an eye on (and a good written record) how much food the worms are consuming how quickly. Adjust the volumes accordingly.

The moisture level is important so you will need to do a 'squeeze test' every now and then.

As already mentioned, the worms like to live in a pH neutral situation, so a sprinkle of Dolomite each week is important to 'sweeten' any acidic foods.

As long as their home is well maintained the worms will happily turn your wastes into the valuable plant food called vermicast.

**Tell us how it is going - phone Sarah 0800 368 267
or email sarah@boprc.govt.nz**