

Wormeries



Worms are renowned for digging in the garden, providing a route for water and air to get underground. But they are also excellent for reducing certain food waste into two different products, both useful in the growth of new plants.

Recycling via worms!

As a country we are running out of room to dump our rubbish in landfills. We need to reduce the amount of rubbish we generate and recycle as much as possible. This is going to start hitting home soon when councils begin to charge their householders based on the weight of rubbish that is being collected.

One thing that can help is to divert organic items and turn them into a growing medium for our plants. Whilst many people have compost bins in their back gardens to do this (see our composting Idea Sheet for more information on compost bins), there is another option: a wormery.

A wormery is simply a contained system for turning vegetable peelings, fruit skins, tea bags and other kitchen waste into a fine, fertile growing medium called vermicompost. The vermicompost is formed by the worms munching through the waste material and producing 'wormcasts'. These are highly fertile and perfect for use as potting compost or top dressing in the garden. The worm casts actually provide a slow release nitrogen source for your plants – a natural organic fertiliser for free!

Unlike a compost bin, a wormery does not rely on microbes to heat it up and digest the waste. The worms do all the processing and the result is that the system is compact and clean, and can be fed a little at a time as kitchen waste is produced. A functioning wormery is often located outside the kitchen door or on the patio. Some people even have them in the kitchen under the sink!

Worm wee water!

As well as the vermicompost made from the worm casts, a wormery will often collect nutrient-rich liquid at the bottom. This is often called 'worm wee' and can be diluted to give to particular plants that need a 'pep up'. The amount of worm wee that a wormery produces depends on how wet the incoming material is and also how absorbent the layers between the new material being added at the top and the liquid collection point at the bottom are.

Buy or make?

If you'd like to get started with wormeries immediately and don't feel up to a little bit of 'DIY', there are now many companies that produce wormery kits. These are usually made of recycled plastic (thus helping boost the demand for more recycling!) and come complete with a pack of worms, some initial 'bedding' for them and a set of instructions on getting the wormery going.

The commercial wormeries break down into two main classes: the dustbin-like single units and modular stackable systems. The latter often cost a bit more but have the advantage of making access to the completed vermicompost much easier.

The downside of the commercial wormeries is that they can cost anywhere from £40 to £100. For folk on a tight budget it is perfectly possible to construct your own wormery, often using recycled components.

A homemade wormery can be made out of wood or use tightly fitting plastic tubs or boxes. The internal space should have a mesh or perforated platform an inch or two from the base to allow the worm wee to percolate through without having the lowest material stay saturated (or having the worms drown!). Ideally a tap can be attached to this base container to allow the worm wee to be drawn off as required. Water butt or home brewing taps are ideal for this.

If you can arrange it with the materials you have to hand it will be useful if the layers can be separated in the same way that the commercial modular stackable wormeries can. This will allow you to remove the lowest layer, empty it out and then replace it at the top to start filling again. The worms tend to work their way up through the layers as they exhaust the food supply towards the bottom, so the lowest layer should be the finished vermicompost, ready to use in your pot plants and garden.

If you are unable to build a wormery in stackable layers you can always build one in an old bin with a mesh placed a few inches from the bottom, a tap installed under that and some shredded paper placed on the mesh, followed by the worms and then the vegetable scraps.

You can keep adding to this type of bin as you need to. When it is full, you can take off the top few inches of unprocessed material (which will contain most of the worms as well) and set it aside. Then remove the rest of the vermicompost in the bin before replacing the previous top layer and worms in the now empty bin.






What sort of worms?

Most people are familiar with the long, plump, pink earthworms you see when you dig in the garden. These are called lob worms and are deep burrowing worms. Whilst they are great for getting air into your soil to help plants grow, their deep burrowing habit is not ideal for use in a wormery.

There are other varieties of worm known as dendra, tiger, brandling or redworms that live closer to the surface and consume decaying organic matter. These are the ideal types of worms for a home wormery. They can be purchased from a variety of sources including commercial wormery vendors and fishing tackle shops. However if you, or a friend or neighbour, have a garden compost bin you may well find some in there that you can use to start your own DIY wormery. Suitable worms are usually an inch or two long and dark red in colour. Commercial wormeries typically come with between 500g and 1kg of worms, but as they breed rapidly in the right conditions you can start with less, especially if you slowly build up the amount of kitchen waste that you feed into your wormery.

What can go into the wormery?

A normal wormery is ideal for processing raw chopped up vegetable peelings, fruit skins, tea bags and small quantities of plant material (leafy green prunings, annual weeds, etc). Avoid adding:

-  cooked food (it can attract vermin),
-  diseased plant material (the wormery will not kill off the diseases which may then spread to the plants that the vermicompost is used with),
-  dog or cat excrement (they can contain harmful pathogens that humans can catch from the compost),
-  weed seeds (they may appear in the resulting vermicompost),
-  too much grass clippings (they will get slimy and smelly and may kill the worms).

Also do not put in too much acidic material (onion skins and citrus fruit peelings for example) as the worms do not like a very acidic environment. A few onion skins or orange/lemon peelings amongst a larger amount of other material is fine though, and you can also add crushed eggshells to help reduce the acidity.

Care and maintenance

Wormeries are typically trouble free and can last for years. You need to remember to empty the worm wee so that it doesn't drown the worms, and harvest the vermicompost every few months. If your wormery is outside you must ensure that it has a waterproof lid so that the worms don't get flooded when it rains. In cold weather the worms will slow down, stopping work completely below 5°C. You can help prevent this by insulating the wormery – wrap it in old blankets or an old duvet, or build a box around it and stuff it with crunched up paper or recycled polystyrene packing.

Enjoy your wormery!