



Handy Information Booklet

Please read prior to operation and keep safe!

www.originalorganics.co.uk

Thank you for purchasing what is probably the best value multi tray Wormery available supplied from the home of Wormeries, from the inventors of the Wormery, Original Organics.

The first thing to do is check your package contains all the correct items. If it doesn't, you should contact us immediately on 01462 429777 or via our website www.originalorganics.co.uk or write to Customer Services, Original Organics, 54 Wilbury Way, Hitchin, Hertfordshire SG4 0TP.

Package Contents

- Base Tray (stand)
- Holding Tray for Drainage Sump (will have a tap-hole through it)
- Drainage Sump (solid tray with a tap-hole through it)
- 3 or 4 Composting Trays (or more if you have purchased extra trays!)
- Tap with nut
- Silver Screws and Nuts (for holding the stand to the sump!)
- A bag of bedding (fibrous compost)
- Bag of Lime Mix
- Live worms or a Worm Voucher (to order fresh worms directly)
- Lid with handle
- This Handy Information Booklet

Putting your Wormery together

- 1) Place the holding tray (meshed tray with tap-hole) on top of the stand tray (with the legs facing downward) and secure together by screwing the two silver screws through the now aligned holes at opposite corners.
- 2) Place the solid drainage tray inside the holding tray so that the tap-holes are aligned.
- 3) Push and/or screw the plastic tap through the aligned holes and secure by tightening the nut inside the drainage sump.
- 4) Stack the first composting tray on top of the drainage tray.
- 5) Cover the mesh bottom of the first composting tray with a single sheet of newspaper.
- 6) Make a mound of the bedding on the sheet of paper and if the bedding is dry then add enough water to lightly moisten it through. If you wish to supplement with extra bedding, use coir, well-rotted leaf mould, sedge peat or dampened shredded cardboard or newspaper.
- 7) Add the fresh tiger worms directly to this bedding.

Early Days

Once your Wormery is assembled, add a small amount of food waste to a corner of your 'working' tray and place the lid on top. You should wait around a week before adding further waste as the first few weeks are when the worms settle down and 'explore' their new home and become mature. The worms rely on the food decomposing naturally a certain amount first, so don't worry if the food is looking rotten and mouldy – your worms will love it! For the first few weeks add a couple of handfuls of waste only every few days and increase over time thereafter.

Once established, your Tiger Wormery should cope with the average food waste output of a family of 4.

The Tiger Wormery is an 'upward migration' based system. Once your first tray is full, place another empty tray on top and start adding your food waste to this tray. The worms will follow the food up into the next tray through the mesh base when they're ready. You do the same again with your third tray and so on. By the time your third or fourth tray is full, the tray on the bottom should contain compost ready to harvest.

What to feed your worms

Your worms will eat any dead and decaying organic matter e.g. ordinary kitchen waste such as peelings, bread, cooked and uncooked scraps, tea bags, egg shells and paper kitchen towels. In fact virtually any organic kitchen waste can be used. As most organic kitchen waste has a high water content, no additional water should be added. With this in mind it is advisable to drain kitchen waste prior to adding it to the Wormery, especially if you use a kitchen caddy. It is surprising how much liquid can accumulate in even a small kitchen waste container. Too much water could lead to waterlogging. If you include meat scraps be careful not to attract flies - either bury them or cover with a layer of coir or leaf mould.

Essentially your Wormery is designed to deal with kitchen generated organic food waste, however the odd handful of leaves, grass or similar garden waste may be used (avoid woody and thick fibrous material) from time to time. However don't use large quantities of garden material such as lawn clippings as this will be far too much waste at one time and may heat up and be harmful to the worms.

Large quantities of garden waste are perhaps best dealt with by conventional composting techniques involving a heap or proprietary bin such as the 'Rotol' Compost Converter and Garden King Composter, which are both available from Original Organics www.originalorganics.co.uk

You can also use waste and litter from small vegetarian pets like rabbits and hamsters, but dog and cat faeces and indeed the waste of any meat eating animals should not be added as they can carry diseases (if you have a problem dealing with dog waste then visit www.originalorganics.co.uk for details of our pet poo Wormery).

Don't add too much onion, leek or citrus fruit peel as this tends to make the environment too acidic. The occasional application of the lime mix (provided) should help keep the compost 'sweet'. The lime mix should certainly be added if you notice tiny cotton thread-like white worms appearing. These Pot worms or enchytriads are natural and quite harmless however, they are an indicator that the compost is becoming too acidic (the ideal pH is neutral) and/or too wet. Add one small handful every 6 weeks or so in normal conditions (Crushed egg shells do the same job).

Looking after your Wormery

Conditions in each Wormery are bound to differ because of numerous variables such as type, frequency and state of food added, location of the Wormery and the temperature. So no two Wormeries will have identical conditions. In view of this, operating a Wormery involves just a little bit of 'art' and some common sense.

Whilst it is true to say that the Wormery requires relatively little maintenance, its success is dependent upon the health of the worms. A short inspection on a regular basis should ensure that the worms stay on course. Every 4 weeks or so gently dig into the compost with a hand fork or stick to check that the worms are thriving, and that compost production is underway. Whilst doing this you will be able to check for any possible indications of excess moisture or acidity. Adding several sheets of dry shredded newspaper each month will help process the large quantity of liquid generated and reduce any excess dampness in the compost. If in doubt add a handful of lime mix and mix in plenty of dry shredded newspaper. Draining off the liquid feed frequently also helps to prevent over-moist conditions.

Worm composting is a simple, clean and efficacious natural process. A little bit of care and attention will ensure success. Although problems are few and unusual, they are simple to avoid and usually straightforward to remedy. If conditions become less than ideal, your worms may slow down their processing of food waste. If this occurs stop adding new food for a few weeks to give them a chance to catch up, and check the Fact File and troubleshooting section in this information booklet. If you are in any doubt or have any queries concerning your Wormery please do not hesitate to call us - we are only too happy to assist. The timely resolution of any minor problem or difficulty should avoid the possibility of any more major problems or failure later on.

Harvesting your Kitchen Waste

Liquid Feed

This is produced more quickly than the compost and you should be able to start tapping this off after about 10 weeks. It is important not to allow the sump liquid level to become too high. If you think the waste material looks too wet, mix in plenty of dry shredded newspaper to soak up the excess. Empty the Wormery sump every couple of weeks or so by using the tap. (Simply pull towards you to fully open it.) This excellent general purpose liquid plant food has numerous uses for house and garden plants.

Dilute the liquid with 10 parts of water for your organic, liquid plant food. Typically, the liquid feed is high in the major plant nutrients - potassium and phosphorus, has a medium level of nitrogen and is rich in essential minerals and trace elements. Please note that the liquid feed can have a strong odour at the point of tapping off. However any odour should dissipate rapidly upon dilution and application.

Emptying the Compost

When your third or fourth tray is full the first tray should be ready for harvesting, this will typically be 6 months + on from when you first set up the system. The contents of the bottom tray will be a rich dark colour if not black. Simply lift off the upper trays to access the bottom one, then remove it and harvest your compost. The working trays are then replaced on the stand and you now have a spare tray ready to go on top of the stack when required. As most of the worms should be in the upper trays you should not lose too many when the compost is spread on your garden. However if a few worms are added to the garden with the compost they will not cause any harm whatsoever.

For really professional looking results, the compost can be sieved through a 12mm sieve prior to use although this is not essential. Worm compost is rich, fertile, and nutritious and contains many valuable trace elements - so use in handfuls rather than barrow loads! It makes excellent top dressing, or can be used to make quality potting compost. It can also be used as a topping for house plants and garden tubs and is quite excellent for tomatoes and roses.

Worm casts are one of the richest natural sources of balanced organic nutrients for horticultural use known to man. Perhaps not surprisingly it's known as *"the caviar of composts"*.

Typical Compost Mixtures

Gardeners have their own preferences for the perfect compost mixture for a particular purpose and the ideal mix will vary according to your soil. The following formulae are typical (and for your guidance):

Top dressing:	Spread a 1" layer of worm compost as required around your plants
Lawn dressing:	1 part sand 1 part soil 1 part worm compost
Seed compost:	3 parts leaf mould 1 part worm compost

Potting compost: 2 parts leaf mould 1 part worm compost 1/2 part Perlite
Container compost: 4 parts leaf mould 2 parts worm compost 1 part sand or Perlite
Planting compost: 1 part soil 1 part worm compost (for transplanting)

Trouble Shooting

Most of your queries will be answered in our Fact File section below but the two most commonly encountered (but still quite rare) problems are described below:

Excess Moisture and Waterlogging

Signs to watch out for include any unpleasant odour in the Wormery or numerous worms that look like they're continually attempting to escape all of a sudden (after the first month or so of operation during which time some worm exploration is to be expected). Both of these are generally signs of waterlogging in the compost compartment.

Forgetting to tap off the liquid feed can result in the sump filling up which also stops the flow of 'water' thus leaving the compost waterlogged and unpleasant. Your worms will not thrive under these conditions.

If you are adding large quantities of water rich foods such as lettuce, cabbage, fruit peelings etc. particularly in warmer weather, water may be rapidly released into the compost. Similarly if the contents of the bin have become too acidic (see section on lime mix) and the worms have failed to thrive, the reduced worm activity will slow the flow of nutrient rich liquid to the sump.

Worm composting is a moist process, however excessive dampness will deny oxygen to the worms and severely reduce their effectiveness. To remedy this situation, simply tear dry newspaper into strips and mix it well into the compost. In the unlikely event that you have a disaster and 'lose' your worms we can of course supply replacement tiger worms at a very reasonable cost (please see our website for further details: www.originalorganics.co.uk).

Flies and Insects

The Tiger Wormery is designed to make access to flies and insects difficult. However the fly most likely to take an interest in your Wormery is the small fruit fly (*drosophila*). A little care in operation should help reduce the likelihood of such trouble. The risks to beware of are: adding garden soil or compost which is not sterile and may contain various insects or their eggs; adding garden or kitchen waste from home grown vegetables which may have eggs or larvae on their leaves; storing your kitchen waste too long or in an open container before adding to the Wormery - flies may have laid eggs on such waste and then you inadvertently introduce them to the worm bin, and finally leaving the lid off or not replacing it securely.

Flies won't do any harm but may well be considered unpleasant or undesirable and particularly unacceptable if you keep your Wormery indoors!

Should you experience a minor fly problem simply cover the surface of the food waste in the bin with a 2" layer of well-rotted compost, leaf mould, peat free compost or coir and don't add further food for 6-7 days - this should rapidly cure the problem. This process is called 'casing' the bin.

In the unusual event of a serious insect infestation it is likely that insects have started to breed in the Wormery. Fly paper or a sticky fly trap may well resolve this problem. Alternatively spray the bin for 8 or 9 consecutive days to break an established insect breeding cycle. We don't like recommending chemical insecticides as they're not organic, however they shouldn't harm the worms (as they will be below the surface) and organic based bio-friendly sprays are now widely available (see our website www.originalorganics.co.uk to order).

FACT FILE

Q What about holidays?

A Leaving an established Wormery without further food for up to 4 weeks should be no problem. The worms regulate their activity in line with the amount of food available. So your holidays should not pose any difficulties for the worms. However, do remember to drain off all the liquid before you leave the Wormery, and mix in some dry shredded newspaper. Also leave the tap open with a container positioned to collect any excess liquid.

Q Will weeds start growing in the bin?

A This is unlikely but possible. The most likely cause is the addition of weeds with seed heads. In any event this is no problem. Simply pick out any seedlings to prevent further growth.

Q There's mould in my bin. Why?

A In the early stages of decomposition of vegetable matter, a furry grey mould may occasionally appear. It is not unpleasant, will not affect the worms and will soon disappear.

Q Where should I keep my Wormery?

A Wherever is most convenient for you, indoors or outside. In many ways, the kitchen is the most appropriate place but this won't suit everyone. Wherever you do put it, keep it frost-free during the winter. Perhaps an outhouse, garage, shed or utility room would be ideal for the colder months.

Q Does the temperature affect the process?

A Yes, the optimum temperature range is 18-25°C but your hard working tiger worms will work well at lower temperatures, although there may be a noticeable 'go slow' below 10°C. Temperatures over 30°C are best avoided. Please note that in the first 8-10 weeks after setting up the Wormery, the worms are particularly vulnerable to extremes of temperature. Once established, the growing volume of compost gives some protection and insulation. So in summer locate it in a shaded place out of direct sunlight for the first few weeks. Similarly, keep the Wormery in a frost-free location over winter.

Q Can I add newspaper?

A Yes, in normal operation adding several sheets of shredded newspaper or cardboard each week is fine. If your Wormery seems very damp then add and mix in as much dry shredded newspaper/cardboard as is necessary to absorb the excess moisture. This may require a significant quantity of newspaper.

Q Will the bin smell?

A No, if you have followed the instructions this should not happen. However if you use strong foods such as fish or some meat scraps it is advisable to bury them well in or sprinkle a layer of soil, leaf mould, coir or peat based compost to 'seal it in'. The occasional handful of lime mix also helps ensure that the process remains sweet.

Q How long does the process take?

A The Wormery is quick and efficient. Within about 8 weeks you'll be tapping off the liquid feed. A handful of kitchen waste takes 6-8 weeks to turn into compost. However most people wait until the Wormery is nearly full before emptying the compost. As you are adding food all the time it typically takes 8-12 months. Remember over 75% of what goes in comes out as an excellent nutritious liquid plant food.

Q Do the worms escape?

A Once the Wormery is established, if the Wormery is looked after as described they have no reason to even try - it's a compost worm's paradise. However, during the first few days the worms will explore and it's during this period you may find the odd worm ends up outside the unit. Don't worry, losing the odd worm is not a problem, but if you find your worms are particularly adventurous try keeping the unit inside a black bag which will allow you to catch them and replace them back into the Wormery. Once they have explored their new home they tend to stay well out of sight in the compost unless their environment becomes unpleasant (see Trouble Shooting).

Q Does the Wormery need any maintenance?

A If you wish to clean the Wormery, use a damp cloth only and not any detergents or soaps. A wipe over with a damp cloth is all that is required to keep the unit looking good and won't harm the worms at all. If you use kitchen towel, then the towel itself can be added to the Wormery to become part of the composting process.

Q Can I store the liquid feed and compost?

A Yes, the liquid can be tapped off into a suitable container (e.g. 4 and 6 pint plastic milk bottles) and stored in a cool dark location for several months prior to dilution and use. Similarly the compost can be bagged up and stored for later use.

Q What is the lime mix?

A Used at a rate of 240g (8oz) to the square metre it is a good general fertiliser to use all over the garden especially where acid conditions need to be made more alkaline. Excellent value 20kg sacks are available from Original Organics. It's a gentle form of lime - calcium oxide and stops the wormery becoming too acidic.

Q Is the process safe?

A Yes. Not only is it safe, it's totally environmentally friendly, interesting and highly educational. Many youngsters delight in looking after the household Wormery and don't realise just how much they learn. Combine their interest in nature with their concern for the environment and you will get your kitchen waste bin emptied every time!

Q Will I need to buy more worms?

A This is unlikely as the Wormery should provide ideal conditions for them to thrive and breed in. However, should you have a disaster we do sell bags of worms.

**For more information, tips, help and advice visit our website at :-
<http://www.originalorganics.co.uk>**

