Stainless Steel Indoor Wormery®

gm8 GROUP

Full Instructions and information
We advise you to read these instructions fully and keep this leaflet for future reference.

What's in your Wormery?

Unpack your Wormery and check your delivery package against the list below to ensure it contains all the correct items:

- ❑ Internal stainless steel perforated separating platform.
- ❑ 1/2" Stainless Steel BSPP Hose Nipple
- ❑ 1/2" Stainless Steel MF Ball Valve
- ❑ PTFE Thread Sealing Tape - 12mm Wide x 12m Long
- ❑ Compost worms (in protective packaging)/or a worm order card*
- ❑ Worm bedding coir (coir block) to start the process.
- ❑ Lime Mix

Assembling your Wormery & Adding Worms

Your high quality Stainless Steel Indoor Wormery comes readily assembled, minus the tap and the worms which you need to add yourself. Follow the instructions below and then turn to page 2 for help on how to install the tap.

1. Place a single square sheet (approx. 5") of newspaper on the separating platform
2. Place the coir block in container, cover with water and allow to soak for 2 hours. Drain off water and, taking a handful of coir at a time, squeeze excess water out until there are no more drips. Then, on top of a sheet of newspaper, add a sufficient amount to your Wormery to give the worms plenty of depth to burrow around 2-3" down. If there is any left this can be added to your garden or plant pots.
3. Carefully empty the worms into the bedding and add a thin layer (two large handfuls) of rotting kitchen waste. Leave the lid open for 10 minutes or so and light (natural or artificial) will encourage the worms to dig into the bedding and settle into their new home. You're now in business! When replacing the lid ensure that the clips are securely clipped into place

An important note about your Worms

Please note the worms are native species of compost worms called tiger worms, red worms or brandlings (Latin names Eisenia andrei, Eisenia foetida and Dendrabeana Venera) not common earthworms (Lumbricus terrestris). They are particularly vulnerable to temperature extremes whilst they remain in the small bag. If it is not possible to establish your Wormery as soon as possible, keep the worms in your fridge (at around 7 degrees Celsius, use a thermometer) until you plan to use them.

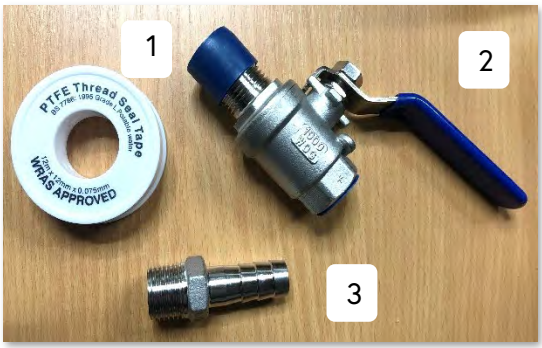
Where do I place my Wormery?

As your Wormery should be clean and odour-free, you can keep it wherever is most convenient, on a work surface or floor, in a cupboard or under the sink as you prefer. However, worms do not thrive in extreme temperatures, particularly at the beginning of this process so avoid places in full sun and remember to keep it in a frost-free position over winter.

Installing The Tap

Step 1:

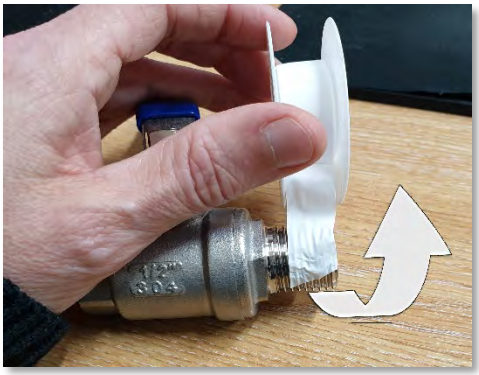
Unpack and check that you have the pictured below all present



1. PTFE Tape
2. 1/2" Stainless Steel MF Ball Valve (or 'tap')
3. 1/2" Stainless Steel BSPP Hose Nipple

Step 2:

Remove blue protection cap. Wind PTFE tape away from you (clock-wise) and around the thread on the tap/Ball Valve. Wind the tape around the thread, fully, 3-4 times



Step 3:

Repeat step 2 with the Hose Nipple and wind the PTFE tap clockwise around the thread

Step 4:

Screw the Hose Nipple clockwise into the tap until hand tight

Step 5:

Tighten the fixed nut on Nipple with a spanner until it bottoms out (it cannot be tightened anymore). Over tightening will cause the nut to break

Step 6:

Screw the finished tap clockwise into the threaded hole in the front of the Wormery. Tighten until hand tight

Step 7:

With a spanner, tighten the fixed tap nut until it bottoms out (do not over tighten)

Step 8:

The assembled tap should have the blue handle located at the top, but flow and usage are not affected if this is not the case and the handle is not at the top

Early Days

Don't add further food for a week. The worms take a little while to settle in but will soon speed up their food consumption and recycling processes. Apart from in very cold weather, the worms should be reasonably active by now and will have spread throughout the bedding and 'food'. For the next two weeks simply add 2 or 3 handfuls of kitchen waste each week. At the end of this period it is ready for normal operation - simply add kitchen waste as it becomes available. Ideally, food should be added each day (little and often is the best), although success is often also achieved by saving your kitchen scraps in a bin and adding them every 3 or 4 days. It would be helpful to chop up larger fibrous or woody material such as cauliflower and cabbage stalks. Occasionally mix the fresh waste in with the 'old' contents to ensure the worms spread through the surface layers.

As their digestive and recycling action increases, the worms can cope with more and more waste matter. So, from about 3 weeks onwards, the Wormery should be established and capable of dealing with most of your kitchen waste (typically the output of one person).

What to feed your worms

Your worms will eat any dead and decaying/rotting 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. As most organic kitchen waste has a high-water content, no additional water should be added. It is advisable to drain kitchen waste prior to adding it to the worm bin. It is surprising how much liquid can accumulate in even a small kitchen waste container. Too much water could lead to water-logging, which could kill your worms.

If you include meat scraps, please bury it so as not to attract flies.

Do not add garden waste as this could include fly and insect eggs and larvae. Garden waste is best dealt with by conventional composting techniques involving a heap or proprietary bin.

Lime Mix

The lime mix is used to prevent the environment in the Wormery becoming too acidic so keep it in a convenient dry place. Once the Wormery is established add a small handful of the lime mix every 4 weeks or so. Ground lime, Dolomite or crushed egg shells will do the job just as well but not ordinary garden lime which could harm the worms. The presence of tiny cotton thread-like white worms is an indicator of acidic conditions and an extra handful of lime mix should restore the balance.

You can also use waste and litter from small pets like rabbits and hamsters, but dog and cat faeces should not be added as they can carry diseases.

Try not to 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 are natural and quite harmless however, they are an indicator that the compost is becoming too acidic (the ideal ph. is neutral). Add one small handful of lime mix every 4 weeks or so in normal conditions.

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. We recommend every 4 weeks or so gently dig into the compost with a hand or garden fork 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

handfuls of torn egg cartons each month will help process the large quantity of liquid generated and reduce any excess dampness in the compost. Draining off the liquid feed frequently also helps to prevent over-moist conditions. Whilst mixing in the torn egg cartons, you could use a garden fork to turn the compost and food waste and mix the egg cartons in the Wormery thoroughly.

Worm composting is a simple, clean and effective natural process. A little bit of care and attention will ensure success. Although problems are few, and unusual, they are simple to avoid and 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 these instructions.

Harvesting Your Compost

Liquid Feed

This is produced more quickly than the compost and you should be able to start tapping this off after about 4-6 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 torn egg cartons to soak up the excess. Empty the Wormery sump every couple of weeks or so by using the tap. If necessary, carefully tip forward to make sure the sump is drained of liquid feed. This excellent plant food has numerous uses for house and garden plants. Dilute the liquid with about 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.

Emptying the Compost

When your bin is full (typically 8-10 months) it is time to empty the Wormery of its rich organic compost. Obviously, you will need to keep as many of the worms as you can to start the next bin and this is simply done by transferring the top 7" or 8" inches/200mm of waste into a suitable container. After emptying the compost, return this top layer to the Wormery and off you go again. If a few worms are added to the garden with the compost they will not cause any harm whatsoever.

Unlike common earthworms which are great burrowers, tiger worms tend to congregate towards the surface where they feed just below the top layer of food waste.

As so much liquid drains through the upper layers on its way to the sump the resultant compost tends to be moist. If you prefer a drier material, simply spread it out on sheets of polythene or newspaper in a dry place for a few days and the excess dampness should soon evaporate.

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 leafmould 1-part worm compost
Potting Compost:	2 parts leafmould 1-part worm compost
1/2-part Perlite Container Compost:	4 parts leafmould 2 parts worm compost 1 part sand
Perlite Planting Compost:	1 part soil 1 part worm compost (for transplanting)

Troubleshooting

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

Excess Moisture and Waterlogging

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 egg cartons up and mix it well into the compost, right down to the separating platform. Use as much cardboard as is necessary to absorb the excess water. If in doubt err on the generous side, as too little won't solve the problem, whilst too much will not do any harm. In severe cases it may be necessary to repeat this after a couple of weeks. In the unlikely event that you have a disaster and 'lose' your worms you are able to purchase more from our website.

Flies and Insects

The Wormery is designed to deny access to flies and insects. The lid seal and slips should ensure a secure lid fit and aeration vent are too fine for insects to get through.

The fly most likely to take an interest in your Wormery is the small fruit fly. Simple care in operation should ensure that you have no such trouble. The risks to beware of are: adding garden soil or compost which is not sterile; adding garden or kitchen waste from home grown vegetables which may have eggs or larvae on their leaves; storing your kitchen waste too long 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 not closing the lid securely. Flies won't do any harm but may well be unpleasant particularly if you keep your Wormery indoors!

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 the 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.

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 , torn up egg cartons. 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 and rotting 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. The unit is not water proof due to the ventilation in the top of the lid.

Q Does the temperature affect the process?

A Yes, the optimum temperature range is 18-25°C but your hard-working compost 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, but check the ink is non-toxic. Newspaper is not the best remedy for a damp Wormery as it turns into mulch. Egg cartons or toilet roll inners are much better for this. Do not add glossy magazines, flyers or anything with a coating on the paper as these are toxic and will harm your worms.

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. 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 6 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 Can the worms escape?

A No, and if the Wormery is looked after as described they have no reason to even try - it's a compost worm's paradise. The bin design, sealed lid and clips mean they are truly secure. During the first few days the worms will explore the inside walls of the bin. 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 Made from easy to clean stainless steel, an occasional wipe with a damp cloth will keep the bin looking good. The inside walls of the bin above the compost level may become dotted with black worm casts. This is no problem but if you wish, a weekly wipe with a piece of kitchen towel will keep it looking fresh and clean and can itself be composted. Please don't use any soaps, detergents or disinfectants etc.

Q Can I store the liquid feed and compost?

A Yes, the liquid can be tapped off into a suitable plastic container 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 8oz (240gm) to the square yard it is a good general fertiliser to use all over the garden especially where acid conditions need to be made more alkaline. It's a gentle form of lime - calcium oxide and stops the wormery becoming too acidic. Used in the Wormery, this will help to maintain the pH level at 7 (neutral), which is great if you add citrus waste. Check our website if you need more of this.

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 worms separately.

Customer Services

We are committed to providing quality products that are good value and work well. We have a policy of continual product development and improvement.

If you experience any problems or have any queries or comments concerning your Wormery, please write to: GM8 Group, 54 Wilbury Way, Hitchin, Hertfordshire, SG4 0TP
Telephone: 01462 429765 Email: cs@gm8group.com