THE WORM FARM

PART OF THE UNDERGROUND MOVEMENT

Frequently Asked Questions

What is Vermicomposting

Vermicomposting is the process of using worms (usually compost worms) to assist in composting organic matter, such as kitchen scraps and dried leaves from the garden, to create what's called vermicast. This end product (a rich, soil-like substance) is made up of all the good stuff from your organic matter, and can be considered literal gold for your garden or commercial crops and grazing pasture

What are the benefits of vermicomposting?

Vermicomposting

uses an aerobic process which does not produce methane, because methane-producing microbes are not active in the presence of oxygen. Composting in anaerobic conditions releases methane into the atmosphere which is approximately 25-30 times more potent than carbon dioxide as a greenhouse gas. Basically, worms process the harmful stuff and leave you with a nutrient-rich cast, ready to put back into your garden.

Because worms are always hungry, vermicomposting can take as little as half the time of the thermophilic composting process.

The types of microbial communities that develop during the composting and

vermicomposting processes are significantly different. The microbial populations in vermicast are substantially larger and more diverse than those in a normal (thermophilic) compost, making your garden stronger and more resilient.

Vermicast contains a higher concentration of nutrients in comparison to conventional compost.

Vermicast does it all. It improves soil health and fertility, increases the nutrient content and microbial life of soils, improves water retention, and reduces the need for fertilizers and pesticides.

Vermicast creates microbial diversity, helping plants resist attacks by pathogens, insects, and parasitic nematodes.

What happens when food scraps go to landfill?

When food scraps go to landfill, they don't decompose as nature

intended. Suffocated in plastic and sandwiched between mixed waste and garbage, these food scraps are starved of oxygen and will break down anaerobically, producing methane gas, which is approximately 25-30 times worse than carbon dioxide as a greenhouse gas. The process also

produces leachate, a pollutant which often makes its way back into our soils and water.

What size habitat is best for me?

It really depends on what you're trying to achieve from your worm farm. If waste management if your goal, try and determine how much waste you think you'd like to process through your worm farm. However much food scraps you think you go through a week/day, you will need to add approximately the same amount of carbon input to keep your worm farm environment balanced. This will help you determine which size will best suit you.

Introduction to Worms

What species of worm do you use?

All specifically designed to thrive in a worm farm environment, we use a

mix of compost worms, including Tigers, Dendrobaena,

and European Night Crawlers. We use such a variety in our compost worms

mix because some species do better in warmer or colder weather than

others. By combining these species, your worm farm (Minhocasa) will remain active,

and work more consistently throughout the different seasons. Strength in

nature comes from diversity, so the more diverse your worm species, the

stronger your worm farm will be.

Will the worms interbreed?

Worms are pretty clever, and while they'll reproduce and self-regulate to suit the size of their environment, they'll only breed with those of the same species.

Are worms included in the price of a worm habitat?
Worms are an available add-on to our range of worm habitats. As everyone has different needs when it comes to their worm farm, we don't currently include worms as part of a compulsory package, we leave the choice up to you. If you're unsure of how many worms you need, get in touch!

How many worms should I start with?

Your initial worm population will be determined by what you're trying to achieve from your worm farm, how quickly you'd like it up and running at capacity and your budget. Worms will reproduce and self-regulate numbers to suit the size of their environment, so given the right conditions (i.e they're healthy and happy!) numbers should double once every 3 months. Therefore, (if you're patient) you can start with less worms and allow them to reproduce over time, or if you're looking to accelerate your habitat, you can start with the full capacity quantity from the beginning.

We suggest that a good place to start is approximately half the number of worms that your worm farm is capable of holding. This allows the worms to settle in and reproduce up to full capacity within the 3 months or so, while giving you some time to learnthe ropes of worm farming and witness the process at a more nuanced level.

Please call for worm prices and suggestions for each size in our range

How many worms per square metre?

The recommended amount of worms for composting per sqm is between 500g – 1kg worms per 0.09sqm of surface area, but you can start with less as they'll reproduce numbers to suit the size of their environment. Given the right conditions, numbers will double approximately once every 3 months.

Can my worms be sent with my habitat?

To ensure they arrive safely and happily, we transport your worm farm separately from its tenants. We also like to ensure you've set up your Minhocasa (per your helpful manual) so it's all ready for the arrival of your worms.

Can I put compost worms in the garden?

Of course, however as compost worms live in the top layer of soil, there are a few conditions the garden would need to have to ensure they can survive and thrive. The environment would need to be kept moist and cool, with compost material/mulch available, otherwise your worm friends will look elsewhere.

When will my worm numbers increase?

Given optimal conditions (temperature, food, health etc) your worm population will roughly double every 3 months. The worms will continue to reproduce and will self-regulate to suit the size of their habitat, so you won't run into an overpopulation problem.

Why are my worms trying to escape?

If your worms are crawling away or clumping in the corners of the bin it's generally a sign that something is not quite right in the habitat's environment. Possible causes could be extreme temperatures, inadequate oxygen, lack of food, acidity levels or excessive moisture or dryness. We recommend assessing each of these conditions and address accordingly.

Weather changes can also sometimes cause worms to try and make a run for it, as they can sense changes in barometric pressure which can sometimes cause them to instinctively adjust. This is mostly common with excessive rain where they'll often be found coming up the sides of the bin or clumping in the corners in an attempt to head to higher ground to avoid excess water/drowning. If this occurs, just place your worms back into the habitat and once the weather settles they should find their way back into the bedding.

What do worms eat

What food can I put in my worm farm?

As a general rule, worms will process anything organic (that was once living). As worm farms require a good ratio of carbon and nitrogen inputs, we suggest applying equal inputs of carbon "browns" and nitrogen "greens" to assist in keeping a balanced environment.

Can worms eat seeds?

Worms do not eat seeds. Seeds have a protective cover and as they sprout and grow, they are not appealing for worms, which is why you might sometimes find seedlings popping up in your worm farm – they really are like little farmers!

Can worms eat potato skins?

Compost worms will take preference to other organic materials over the potato skins due to the solanine levels. This means they will generally break down naturally in a worm farm rather than being processed by the worms, hence some spouting may form.

Why is oil bad for a worm farm?

Oil is a complex material which generally requires hot conditions to effectively break down. Oil in your worm farm can attract rodents or other unwanted critters, reduce air flow, displace water, cause a bad smell and excess amounts can make it difficult for worms to breathe through their skin. Very small amounts of oil leftover on foods can be okay as long as you're keeping up plenty of other healthy inputs with a balance of carbon and nitrogen.

Can I put coffee grinds in my worm farm?

Coffee grounds are organic, so yes. Coffee has a carbon to nitrogen ratio of approximately 20:1 which should be taken into consideration amongst your other inputs to avoid excessive nitrogen in your worm farm, which can cause the environment to potentially become hot and acidic. However, coffee has its benefits too! The grit can assist in retaining moisture levels, act as a natural pesticide, be beneficial for your worm's gut digestion, and the small scale of the scraps makes it easy for them to process.

Can the worms eat plant based biodegradable plastics?

It depends on the type of bioplastic. Some bioplastic such as PLA (poly-lactic acid) are typically made from the sugars in corn starch, cassava or sugarcane so can be used in vermicomposting and successfully break down in the worm ecosystem.

Other types of bioplastic require high heat of traditional composting processes to trigger material degradation, so these types are not suitable as your worm habitat should operate at a low temperature (otherwise the worms would bake!).

The best disposable crockery is paper or hemp-based materials.

How much will my worms eat/process?

Worms process anywhere between 25% to 100% of their body weight of organic material a day. Their consumption is highly dependent on the conditions of their environment, and in optimum conditions they will process organic matter more effectively. As a general rule of thumb, if you're keeping a good worm farm environment, they should process an average of 50% of their body weight a day i.e. 1kg worms = 500g of organic waste.

Will the worms be affected by dog medication/worm tablets?

Recent research has shown that modern animal worm medications have little to no effect in harming compost worms. Therefore, we suggest recently wormed animal waste is safe input for your worm farm. Balance dog poo with plenty of high carbon materials such as shredded cardboard, dry leaves, saw dust etc. Ironically these high carbon materials are called "browns", yet dog poo is considered a "green" food because it is high in nitrogen.

Can you put other organic waste in the worm habitat for dog's bin?

We recommend composting dog poo in a separate habitat to your other organic waste as worms will choose veggie scraps over dog poo (wouldn't you?!) but without the choice, they're not so picky and will thrive on what's available. The dog habitat will always require carbon input to ensure a healthy carbon to nitrogen ratio (optimum 20:1).

Worm Farm Management

Is it difficult to manage a worm farm?

There are only a few basic things that need to be maintained to ensure your worm farm is processing organic waste effectively and efficiently. It's best to ensure you have someone who will be in charge of overseeing it ('Head Urban Worm Farmer'!) to ensure the conditions are being monitored regularly. The main factors to maintain are moisture, oxygen and acidity levels. We provide a full comprehensive guide with all our worm farms to set you up for a successful worm farming journey.

Why should I freeze my food scraps?

Freezing your food scraps before putting them in your worm farm is beneficial because:

Freezing breaks down the cell structure in green waste making it easier (and faster) for your worms to process

It can assist in controlling fruit flies as freezing prevents the introduction of eggs to your habitat

It gives your habitat a cool moisture boost (great for summer for managing hot temperatures)

What is dolomite and why do I need to use it?

Dolomite is a powder lime product that helps balance acidity levels. It's a great source of magnesium and calcium and provides favourable conditions for the formation of humus from organic soil matter. Our recommended application once a fortnight.

Can I put sand in my worm farm?

Yes. Grit inputs are good for the worms' digestion and can assist with breaking down organic matter more efficiently, however ensure you aerate the sand through the bedding. Another great form of grit is eggshells.

Are eggshells good for my worm farm?

Yes. Grit inputs are good for the worms' digestion and can assist with breaking down organic matter more efficiently, however ensure you aerate the eggshells through the bedding. Crushing up the eggshells will increase their surface area and provide a more effective grit substance. Another great form of grit is sand.

What should my worm farm environment look like?

There are several characteristics you should look for on a daily basis that indicate you have a healthy worm habitat environment and your worms are thriving:

It smells earthy like the forest, without bad odours

The worms are actively eating their feed (if they are clustered together on the upper sides or trying to get out, something is wrong)

The contents are moist but not soggy. The best test is the 'squeeze test', you should only squeeze one drop of water through your hand.

The worms should have moist, glistening skin.

Why does my worm farm smell bad?

Your worm habitat should smell earthy like healthy soil. If it has an unpleasant odour, something is not right. The smell is likely due to inadequate oxygen, excessive moisture, and too much food. To eliminate odours, mix in dry bedding and leave the lid off for a while, allowing your system to air out.

What can I use as bedding?

We provide cocopeat as bedding with our range of worm farms, but there are plenty of other suitable options you can use as bedding:

Brown cardboard (cut into small pieces or shredded)

Paper (shredded)

Newspaper (shredded)

Aged compost

Aged horse or cow manure

Sawdust

Straw and Hay

Fallen leaves and other farmyard waste

Wood chips

How much cast will I get from my worm farm?

Calculating the cast output from your worm farm depends on a number of variables including your worm numbers, the environmental conditions of your worm farm, climate, what your feeding your worms and the density of those inputs. For example, food scraps will reduce by approximately half whereas your carbon "browns" inputs will reduce by approximately a quarter.

As you can see, this is a tricky one to give an exact answer to! But you can expect to get anywhere from 30-70% 'black gold' cast production from your inputs.

I have had my worm farm for a while now but am not keeping up much cast build up?

As food scraps generally have a high moisture content, this can result in more leachate and less cast. Increasing your carbon input (browns) can improve cast production.

Temperature & pH

How can I manage hot temperatures?

Add thinner layers of feed to minimise the heat generated by decomposing food.

Limit feed to certain sections of the bin so that there are cooler areas for the worms to escape decomposing, heat-conveying food.

Your instinct may be to cool down the bin by adding water, but that can actually cause the bin to heat up because water will fill in the air pockets in the bedding, bringing about anaerobic conditions. Therefore, instead of spraying water to soak the bedding, give it a fine mist.

Freezing your scraps before adding them to your habitat can assist in dropping temperature levels.

Always ensure your habitat is located in a fully shaded area.

The large thermal mass design of our Minhocasa assists in managing temperatures as it allows space for worms to burrow and escape extreme heat or cold.

How can I manage cold temperatures?

Increase your nitrogen (greens) inputs as decomposing food generates heat.

Insulate the habitat in some way to assist with keeping in heat

Relocate the habitat to an area small amounts of sunlight

Add a top layer of moist carbon input or a blanket to assist in holding warmth into the bedding

The large thermal mass design of our Worm Habitats assists in managing temperatures as it allows space for worms to burrow and escape extreme heat or cold.

What pH should my worm farm be?

The pH of organic materials indicates whether it is acidic (1 to 6), neutral (7), or alkaline (8 to 14).

Worms will grow in a pH range between 5 and 8, though acidic conditions can create problems in the worm bed.

Add a light sprinkling of dolomite every couple of weeks to keep pH between 6.5 and 7 if possible.

What do I do if my worm farm is to acidic?

Add some carbon (browns) input to assist in offsetting the pH

Aerate the habitat

Remove any excess decomposing food waste

Add a light sprinkling of dolomite every couple of weeks to keep pH between 6.5 and 7 if possible

Managing Moisture

How do I test if my moisture levels are right?

You can check the moisture levels by performing the 'squeeze test'. Take some of the bedding in your hand (preferably with no worms!) and squeeze, if only a few drops of water come from the bedding your moisture level is spot on.

My worm farm is to wet – How can I fix this?

Add some carbon input such as shredded paper, mulch or aged manure. This will assist in soaking up the excess moisture.

Reduce your feeding, particularly of food scraps as these are often high in moisture content.

Ensure your tap is open and fully draining any leachate from the bottom.

My worm farm is to dry – How can I fix this?

The best way to apply water to your worm habitat is as a mist or fine spray. If you pour water into your Minhocasa you won't be able to control how much it soaks into a given area.

Ideally, your habitat should be the wettest at the surface and get increasingly dry the deeper you go.

A cover or 'worm blanket' can assist in sustaining adequate moisture.

Worm Cast Extract

How much cast will I get form my worm farm?

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What is the content of worm cast extract?

Using a proprietary extraction method, high quality aged worm castings are used to make a premium, high-grade liquid concentrate full of beneficial microbes.

Is your worm cast extract the same as the liquid that comes from the bottom of a worm farm?

No, our Worm Cast Extract (Poo-Tea) is not the liquid that drains from the bottom of your worm farm. That liquid is referred to as 'leachate'. Leachate is simply excess moisture drained through the habitat from inputs and watering. While leachate may likely contain beneficial microbes, it has also possibly passed through decomposing matter and may contain microbes that are not so beneficial (particularly if the liquid has been allowed to become anaerobic). Therefore, we don't recommend applying leachate to edible gardens, but it can be applied to ornamental gardens, lawns etc.

The real 'gold' is the worm cast and the amazing diversity of beneficial microbes, enzymes & growth promoters that come with it. When we prepare our commercial Worm Tea we age, aerate and 'feed' the microbes in our worm cast to maximise beneficial microbes, particularly mycorrhiza fungi. We then utilise a proprietary method of extraction to harvest the microbes, fulvic acids, humates and nutrients into a pure rainwater solution for our farmers and gardeners.

If you have castings from your own worm farm, you can put a few handfuls of cast into a watering can, top up with rainwater, stir vigorously and then treat your vegetables and plants with an amazing elixir.

What are the benefits of your worm cast extract?

Worm cast extract feeds the soil with beneficial microbes required for a healthy soil food web. It works with nature to build a healthy ecosystem, not against it like chemical fertilisers. Worm cast extract is 100% organic, safe and natural.

Some of the benefits include:

Improved soil structure and aeration

Increased yields

Improved plant health & increased growth

Disease suppression & resistance

Improved water holding capacity

Increased nutrients in vegetables (better for the plants, better for you!)

How do I use and apply your worm cast extract?

Please refer to our guidelines of use for suggestions on application & maintenance.

What is the suggested application rate for your worm cast extract?

For domestic use the suggested dilution rate is between 5-20%. Our user guidelines (provided with purchase) outlines suggested application rates.

As a general rule for agricultural or commercial use, the suggested application rates are between 30-60L per hectare. If you require advice on the application rates for your specific crop and purpose please call for a chat with our technical experts.

What is the shelf life for your worm cast extract?

The Worm Cast Extract product is a living product, therefore we recommend to achieve optimal effect and benefits it should be used within six weeks if possible. However, the product can be kept for much longer if aerated and stored appropriately. Store in a cool location out of sunlight. Leave the lid loose to allow oxygen flow and an aerator pump or oxygen rocks can also assist with additional aeration. For extended shelf life, a microbial feed (liquid fish and kelp) prior to application can assist with activating the microbes (use within a day of adding).

Can I use town water to dilute it with?

Worm cast extract should be diluted with clean, non-chlorinated water (i.e. not mains water). If you don't have access to Harvested rain water or spring water, chlorinated water can be used if it has been given sufficient time to de-gas (typically 24-48hrs) or with a dechlorination tablet.

What are the benefits of Arbuscular Mycorrhizal Fungi?

Our Worm Tea is packed with beneficial microbes such as arbuscular mycorrhizal fungi (AMF). AMF significantly:

Enhances the access of roots to a large soil surface area by forming a hyphal network

Increases photosynthetic rates & water uptake resulting in faster plant growth & higher yields

Improves plant nutrition which translates to higher levels of nutrition in the food we eat

Improves the quality of soil by influencing its structure and texture, which in turn increases plant health & resilience to stressors

Managing other critters

HELP! I have other critters in my worm farm?

You'll soon discover that worms aren't the only living critters in your worm habitat. These newcomers likely hitched a ride on the organic materials you added to the bin. Most other critters will not harm your worms, so don't be too concerned with trying to control their populations. These decomposers are part of the soil food web and will actually improve the productivity of your worm habitat. Other critters are generally only an issue if the population starts to become excessive and overtake the worm population.

Little White Mites

Springtails or white mites are quite common visitors within worm habitats and don't usually pose a threat to the ecosystem. The worms and the springtails have a symbiotic relationship that can be part of a healthy worm habitat. However, if you find the population of white mites increasing, this may indicate an increase in moisture or acidity levels. Ensure your habitat is not too wet and that acidity levels are balanced by increasing carbon input and dolomite.

Slugs and Snails

A less welcome visitor, remove snails and slugs by hand where possible. It may be possible to bait these critters by placing the bait on a container – above the surface of the bedding and scraps and away from the worms – and then dispose of them. If you notice that the population continues to increase after the removal of baited snails, this may be due to the remaining snail eggs which have contaminated the bedding. If the problem continues, you may need to restart your habitat, and luckily it's possible to harvest your worms before restarting your habitat without losing the current population.

Maggots/Soldier flies

Maggots or soldier flies don't pose a threat to the worms but is generally a sign of not enough carbon and too much nitrogen (food scraps) creating high moisture and acidity levels – an environment where maggots or soldier flies thrive. It can also be a sign of too much feed for the number of worms present, meaning the food is starting to decompose before the worms get a chance to process it (particularly animal products i.e. meat or dairy) which can invite unwanted pests. This can usually be resolved by stopping the nitrogen input for a week or so and giving the habitat a significant carbon boost – newspaper, shredded cardboard, aged manure, mulch etc, and a sprinkle of dolomite. This will help to balance out the nitrogen, acidity levels and excess moisture.

Aerating your habitat is also important as it may have become a bit anaerobic with too much waste. Gently dig around to increase oxygen levels back into your habitat. To reduce the chance of the maggots making a reappearance, reducing your waste input or upping your worm numbers will help.

Spiders

Spiders like dry conditions which may indicate your habitat is too dry.

Misting the habitat with water regularly for a small period may deter the spiders. Make sure you're aerating your habitat, as this may disrupt their environment and discourage them from breeding in the bedding.

Alternatively, it may be because the habitat is attracting other bugs and critters that the spiders like to snack on. The presence of other critters is usually a sign of too much feed for the number of worms present, meaning the food is starting to decompose before the worms get a chance to process it which can invite unwanted pests. This can usually be resolved by halting the nitrogen input for a week or so and giving the habitat a significant carbon boost – newspaper, shredded cardboard, aged manure, mulch etc, and a sprinkle of dolomite.

Cockroaches

There could be a few reasons as to why the roaches have decided they can take up camp in your habitat. An increase in unwanted critters often indicates an unbalanced habitat. This can normally be managed by adding more carbon or less food waste. These issues can occur when too much waste is put in the habitat for the number of worms, causing the food to rot/decompose naturally before the worms get a chance to process it, and the roaches love nothing more.

We suggest this can usually be resolved by stopping the nitrogen (greens) input for a week or so and giving the habitat a significant carbon boost – newspaper, shredded cardboard, aged manure, mulch etc, and a sprinkle of dolomite. This should encourage the roaches to source food elsewhere.

Fruit flies

Fruit flies are attracted to fresh and decomposing organic matter so a few tips on how to prevent are:

Covering your scraps with a worm blanket or burying them into the bedding

Ensuring you leave your lid down at all times

Freezing your scraps as it prevents the introduction of eggs to your habitat

Ants

Ants are generally a sign that your worm habitat is too dry as ants prefer dry environments and are not a fan of moisture. A simple fix if usually giving your habitat and good misting and aerate.

Flies

A well maintained worm farm should not attract flies. The presence of flies generally indicates too much waste for the number of worms causing organic matter to decompose before the worms get a chance to process it, inviting flies and other critters. They are especially attracted by meat products, sugary foods or greasy food scraps.

Troubleshooting

Mould is forming in my habitat

Mould generally appears when conditions are too acidic. Refer above on how to manage acidic conditions.

My worm farm is sprouting – What should I do?

Sprouts growing are not necessarily a bad thing, in fact they can be great for growing new foods! The sprouts will form from seeds that have made their way into the worm farm, and because of the nutrient dense environment and high microorganism activity sprouting can occur quite quickly. You can remove the sprouts and put them in your garden/soil to continue growing them, or just put them back into the worm farm (cutting them up smaller will help increase the efficiency that the worms will process them).

I need to restart my habitat, how can I harvest the worms?

Worms are photophobic (light sensitive) so this can be used to assist in harvesting worms to separate them from their bedding.

Select an area that has sufficient light (i.e. outside)

Have a container/wheelbarrow with fresh bedding ready for your harvested worms

Lay an appropriate cover on the ground for you to complete the harvesting process (i.e. cardboard, tarp, large container lid etc. A corrugated surface can work well as the worms will burrow into the grooves)

Take the contents from the habitat and create multiple small mounds on the ground surface

Let the mounds sit for a few minutes. As the worms are light sensitive, they will naturally burrow into the centre of the mound to escape the light.

Gradually brush off the surrounding bedding of the mounds and continue to repeat this process until you are left with mainly just worms in the centre.

Put your worms into your fresh bedding.

Habitat Production

What material are your habitats made from?

Our Minhocasa range is manufactured from sustainable, long lasting and lightweight aluminium frame and panels.

Our Domestic range of wheelie bin style habitats is made from polyethylene

grade material (no BPA) sourced from local suppliers.

Warranties

Our domestic worm habitats are covered under a 12-month manufactures defect warranty. Our commercial Grande range of worm habitats are covered under a 24-month manufactures defect warranty. This warranty is given in addition to the consumer guarantees and does not exclude them.
To make a claim under warranty please contact The Worm Farm on the contact information provided with your purchase. The Worm Farm (IOW) Ltd will endevour to correct any defect by way or repair, replacement, compensation or refund.

Dog waste

Will the worms be affected by dog medication/worming tablets?

Recent research has shown that modern animal worm medications have little to no effect in harming compost worms. Therefore, we suggest recently wormed animal waste is safe input for your worm farm. Balance dog poo with plenty of high carbon materials such as shredded cardboard, dry leaves, Sawdust etc.
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Can you put other organic waste in the worm habitat for dog's bin?

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