

RED WIGGLER WORMS FACTS

- Cutting a worm in half does not create two worms; it will actually kill the worm.
- Red wigglers are photosensitive and can only work in the dark.
- When happy and healthy, they can eat about half of their weight every day.
- Red wigglers have gizzards that need grit to grind up food. Soil, shredded leaves, and coffee grounds are examples of things that support their digestive process.
- Worms “breathe” through their skin. It is important to keep the environment moist to help their breathing, but too wet will drown the worms.
- Red wigglers are surface dwellers and will not burrow deeply into soil.
- In good conditions worms will produce 2–3 cocoons a week, producing 3 hatchlings each.
- The liquid that drains out of the worm bin is called “worm tea” and is a great fertilizer. This “tea” will usually need to be diluted: 1 part worm tea to 3 parts water is typical.



WANT TO LEARN MORE?

EarthWays Center has many classes about sustainable living at the Missouri Botanical Garden. If you would like more information about starting composting check out *Composting 101* classes held at the Garden and at Shaw Nature Reserve.

To register for this class or any of the other classes about living sustainably go to www.mobot.org/classes.

WORMS, WORMS, WORMS!

A GUIDE TO STARTING WORM COMPOSTING



DO YOU HAVE QUESTIONS ABOUT LIVING SUSTAINABLY?

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Composting with worms (known as **vermicomposting**) is an easy way to reduce the amount of food you send to the landfill and create fertile compost for use in your garden or potted plants.

WORM BIN CHOICES

There are many different types and styles of store-bought worm bins that are all very good. When starting a worm bin of your own, you can buy one from the store or save some money and make your own.

DIY WORM BIN

Key things to keep in mind when building your own bin:

- Worms need plenty of oxygen, so drill dozens of ¼ inch holes in the tub (bottom, top, and side).
- Worms can crawl out of the bin so consider covering holes with window screen mesh.
- The acceptable range of temperatures for red wigglers (the recommended species of worm for home composting) is 55–77° F.
- Two bins are recommended, one with holes and one without. Do not seat the top bin in the bottom bin fully, but rather use it to capture the “worm tea” that drains from the top tub.



THE WORMS

Red wigglers (*Eisenia fetida*) are a good choice for home composting. They can be ordered online (typically 1000 worms for \$15–\$20) or small batches can be bought locally at bait shops.

BEDDING FOR THE WORMS

To build a home for the worms in your bin you will need to provide good bedding for the worms.

- Shredded cardboard, shredded newspaper, aged straw, coconut coir, fall leaves (worms love rotting leaves).
- One recommend method is mixing bedding with a decent amount of moist food waste, and then simply letting the mixture sit in a closed bin for a week or so before adding worms.

FEEDING THE WORMS

- Vegetable and fruit waste (except citrus)
- Starchy materials—bread, pasta, rice, potatoes—all in moderation (beginners may want to avoid these altogether initially)
- Shredded newspaper, cardboard (it’s a great idea to add these carbon rich materials at the same time you add any wet food waste)
- Egg shells (best if ground up and in moderation)
- Coffee grounds
- Tea bags

Foods to avoid:

- Human/pet waste
- Non-biodegradable materials
- Dairy
- Meat
- Oils/grease
- Citrus

KEEPING THE WORMS HEALTHY

Due to the red wigglers limited temperatures, they will need to be kept inside. Basements and underneath kitchen sinks are great spots to stash a bin.

Keep the bin from getting too dry by spraying water occasionally into the bin with a mister.

HARVESTING THE CASTINGS

Worms will create a “waste” that is an organic fertilizer called “castings.”

MIGRATION METHOD

Worms will follow food scraps, and given a little time, can actually be guided to sort themselves from their castings. The key is to STOP feeding in the area you wish to harvest, and ONLY add food to the area with fresh bedding.

VOLCANO/CONE METHOD

Empty the bin contents onto a stable surface (that you don’t mind getting dirty) and sorting the castings into loosely-packed, cone-shaped piles. The worms will continually burrow away from the edges to escape the light, allowing you to scrape the worm-free castings off of the tops and sides of the piles. Take a 15 minute break after each round of castings removal to allow worms time to move inward. Repeat this process several times until only small piles of worms and castings remain; these can be placed into a bin with fresh bedding and food scraps.

HAND REMOVAL METHOD

There is essentially no planning or technique required with this method; simply dump out the bin contents (probably onto a surface you don’t mind getting dirty) and remove the worms from the castings by hand. Worms should soon after be placed into a bin with fresh bedding and food scraps.