

# Composting with Worms



You can use worms to process food scraps into compost for your garden. Worm castings are rich in microbial life because they are essentially earthworm manure. They are also rich in organic nitrogen, carbon, calcium, and other trace minerals. The worms' processing of the organic matter creates a substance that makes these nutrients immediately available to plants and greatly enhances plant growth, while also leaving behind microbes that will inhabit the soil or plant leaves, depending on how you apply the worm castings.

## 1. Gather supplies.

- 1 pound of redworms, also known as red wigglers (*Eisenia foetida*); this is roughly 1,000 worms and costs about \$40 (including shipping)
- A container 8–12 inches deep with a cover
- A tray to fit under the container
- Drill
- Shredded newspaper or paper, not glossy or colored
- Water
- Gritty material such as sand or eggshells
- Tarp for when you're ready to harvest the castings

## 2. Prepare the worm bin.

Drill holes in the bottom of the container to let excess moisture drain out. Drill holes in the top to let a little air in. Put the tray under the bin to catch the leachate.

## 3. Add the bedding.

Soak a large amount of shredded newspaper or paper in water. Don't include paper with colored print or glossy inserts. Many colored inks are toxic to worms.

Wring out the paper until it is moist but not dripping. Avoid creating conditions that are too wet; worms like a dark, moist (but not wet) environment. Add the paper to the container.

Don't add any garden soil or fresh cow, horse, or chicken manure into the bedding because it will raise the temperature of the bin. Worms prefer an environment that's 55°F to 77°F.

Add some gritty material such as soil, fine sand, or ground eggshells. Worms don't have teeth, so they need something gritty to help them grind up the paper and food.

**4. Add the worms.**

Place your newly acquired worms in the *middle* of the shredded paper, with *no food* to begin. Don't just put them on top. Keep the lid on and make sure the temperature stays at 55°F–77°F. Leave the worms alone for a week to settle in.

**5. Feed the worms after the first week.**

After about a week, start feeding the worms food scraps such as fruit and vegetable peels, pulverized eggshells, tea bags, and coffee grounds. Start with a small amount: 1 cup.

Avoid meat scraps, bones, fish, dairy products, and oily foods. Worms do not like anything processed. You can chop up vegetable matter into smaller sizes for quicker breakdown.

Feed worms once a week in small amounts. If you feed them too much, the bin will begin to smell. Get a feel for how much they will eat each week. The bin should not smell if the process is working properly, because the worms will be able to eat the food before it starts rotting (and smelling). Avoid too much citrus or other acidic food.

**6. Harvest the castings.**

You can harvest castings three to six months after starting, depending on the number of worms you have and the amount of food you're giving them. (Worms can double their population every 90 days with the right conditions.)

To harvest, dump the entire contents of the worm bin on a tarp outside in the sun. After a short while, the worms will move to the center, and you can pull away the castings you need and then scoop the worms back into the bin with fresh bedding. It's OK if a few worms escape with the castings into your garden. They will die over the winter in the soil.

**7. Use the castings.**

You can make a compost tea from the castings. You also can put a small amount of castings directly into a planting hole when planting seedlings or use as you would compost in the garden.