



Good for the Earth, Good for People, Good for Communities

VERMICULTURE

Vermiculture is the process of using worms to decompose food waste and other organic matter into compost. It recycles nutrients back into the soil, increases beneficial microorganisms, and keeps food scraps out of the landfill.

Worm Bins:

- **The Bin:** To make a bin, use a plastic tub or wooden crate 24 to 36 inches high. Don't use any metal due to the possibility of acidic reactions. Drill drainage holes in the bottom (for aeration and to collect excess liquid). Place something to catch the liquid under the bin.
- **The Bedding:** To make the bedding, combine straw, hay, or leaves with shredded newspaper and good quality, finished compost. This creates microclimates and keeps open spaces for the worms to move through. It eventually gets eaten along with the food.

Instructions:

- Wet bedding so it is damp but not too wet (or the worms will drown).
- Add red wiggler worms.
- The worms will be sluggish at first, but they will move down into the bedding to avoid the light, at which time you can feed them.
- Keep your bin moist but not wet. If your bin becomes too wet, add additional shredded newspaper. If it becomes too dry, sprinkle water on top.
- Keep the bedding between 50 and 85 degrees so the worms don't become cold or heat stressed. If your bin is outside in the summer, ensure it is in the shade and mist the top of the bedding with water (which will act as an evaporative cooler).
- Feed your worms approximately once a week, chopping food into small pieces and burying it just below the surface of the bedding. As you feed them, gently dig around to add some air to the bin.
 - Worms like veggies, fruits, coffee grounds, tea leaves/bags, plain bread, rice, melons, crushed eggshell, cereal, pizza crust, dried manure.
 - Worms don't like citrus, onion, meat, garlic, hair, dairy, eggs, green manure, oils, salts, and heavily spiced foods.
 - It is okay if the food starts decomposing before the worms eat it, so there is no need to worry about rot.
 - Well-managed worms can eat approximately their body weight in food each day.



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Harvesting Worm Castings:

- Castings are produced in approximately 3 to 4 months.
- Harvest your castings by feeding the worms in ½ of the bin and leaving the other half “fallow.” The worms will migrate over to the food side of the bin over the course of a couple of weeks, and then you can harvest the fallow side.
- You can also scoop shallow layers off the top of the bedding until you start to see worms. Then give them a few minutes to burrow deeper into the bin and repeat the process.
- When you harvest castings, ensure you add bedding material to the bin to keep the worms happy.

Mitigating Problems:

- If your bin gets smelly:
 - Your bin might have too much food. Remove some and wait a few days before adding more back. Start cutting your food into smaller pieces before adding it to the bin.
 - Your bin might not be getting enough air. Gently lift and move the contents of the bin to incorporate oxygen. Also mix in fresh bedding to create air pockets.
 - Your bin might be too wet. Add bedding material.

If your worms are dying: Remove them, replace the bedding in the bin, then return the worms. Ensure the temperature and moisture are in balance. Your worms have probably laid eggs that will hatch once balance is restored.