



Composting with Worms

Worm castings are high in valuable nutrients, plant growth hormones and disease-suppressing microbes. When used in potting mixes, added to raised beds at planting time, or used as a side dressing or soil drench for established plants, worm castings can improve soil structure, aeration and water-holding capacity.

SETTING UP YOUR WORM BINS

- Use *Eisenia fetida* ("Red wigglers"). They're the most productive. Get them from a friend or buy them from a local nursery or online. One half to one pound is a good start.
- Prepare bedding. Moistened shredded newspaper is commonly used. (Other bedding options: shredded cardboard, office paper, shredded leaves.) This provides a carbon source and helps protect the worms from adverse conditions in the bin.
- There are many kinds of bin set-ups. Here's an easy one that we prefer: Prepare 3 bins: a collection bin and two stacking bins with ¼ inch holes drilled on the bottom of both for drainage and a few on the sides for air. Add bedding (⅓ to ½ full) to one bin, save the other. Add worms. Cover with moistened bedding. Place inside collection bin. Cover.

FEEDING THE WORMS

- OK to feed: fruit and vegetable scraps, coffee grounds and filters, tea bags, bread, pasta, rice, cereals. Use small pieces to aid complete digestion. Crushed eggshells can be a calcium source.
- Avoid lots of citrus; don't use onions, dairy, meat, eggs, or oil. These either produce toxic by-products as they break down or irritate the worms immensely.
- Add the food in a thin layer and cover with bedding. Since the bedding is also a food source, it will need to be replaced as needed. Do not mix. Feed when the last meal is finished.

MAINTAINING THE BINS

- Keep the bins in a protected area, out of direct sunlight and high temps (i.e. not over 95° F.).
- A brown liquid will collect in the bottom of the collection bin. This "worm tea" is high in nutrients, useful as a soil drench, foliar spray, etc. (diluted 1:5 or more).
- It is normal to have other critters share the bin (pot worms, springtails, mites).
- The food will be converted into dark castings. When 3-4 inches deep, it's time to add the 2nd bin. Prepare more bedding, add uneaten bedding/food. Place on top of bin #1. Use "risers" to separate the bins. Worms will move up but grab a handful or two to expedite the process.

HARVESTING

- When the 2nd bin has accumulated 3-4 inches of castings, it's time to harvest bin #1! There will be worms remaining. There are several methods to separate them from the castings: scoop castings slowly off the top, form multiple volcano like hills and scoop, hand pick, etc. Keep castings covered in a cool place. Use soon. Replace bin with new bedding, etc. as above.
- Collect "worm tea" as it accumulates so it doesn't rise into the working bin.