

Kitchen Composting with Worm Bins

Why a worm bin?

Fun, easy, and earth friendly project that decreases food waste in the landfills
Creates a rich high quality compost for your garden - Vermi-compost
Feed the worms organic food waste and the castings are ideal for use on organic food crops.

Internet has many websites that show how to make your own bin or you can purchase multi-tiered bins from Dietz Mushroom Farm. Details are available at the website: dietzfarm.com.

Here is an easy economical bin that will work well for most folks.
Start with sturdy plastic storage bins - 5 gallon size, not clear, as worms avoid light. Using a 2" hole saw, remove a section from the lid and bottom of one of them. Drill small holes around the large one, and using nylon cable ties, make an "X" to retain bedding. Drill a pair of small holes at each corner of the top/bottom sandwich and secure using nylon cable ties. Drill a 2" hole near the top of the cut bin and pop in a 2" screened vent. When the top bin is full, another can be added. If more bins are stacked, cast a concrete base for the bottom collector bin to prevent tipping.

Under ideal conditions, worms eat 1/2 their weight in food waste per day, so estimate the amount of food waste you will produce. However you don't need to go out and purchase 3 # of worms if you have 3# of food waste every couple of days. Start small, and the worms will multiply quickly and adjust their population depending on available food.

Bedding holds moisture and provides a place to bury the kitchen waste. Light and fluffy consistency is best to allow air circulation.

Recommended Bedding Material:

Spent Mushroom Growing Kits (straw digested by oyster mushroom mycelia may contain up to 30% protein by dry weight).

Newspapers - shredded or torn into narrow strips, Coconut fiber (coir), Wood Chips, Leaves or any Combo of the above soaked in water and wrung out, so damp; not dripping.

Place bedding in bin, add a handful of garden soil for "grit" and add your worms. The worms will travel down into the bedding to avoid the light. Don't put bedding in the bottom collector bin.

Worms

Eisenia fetida (eye-SEN-ee-uh FE-ti-dah)

Red worms are available at Dietz Mushroom Farm in Sequim (360) 477-4228
dietzfarm.com

\$7 for enough worms to get started (about 100) or \$25 for 500 worms

Fun facts about red wiggler worms: Worms are hermaphrodites, which means each worm is both male and female; any two worms can reproduce. Newly hatched worms reach breeding age in 60 to 90 days and live for several years. Each worm has a pad that sticks out above its mouth to scoop up and push the bacteria in. Worms have 5 pairs of hearts or pumping vessels that move the blood around to absorb nutrients from the digestive tract. What remains after digestion passes out of the worm and is called castings.

Feeding

Easier to list what not to feed: Dairy, Fats, Meat, Fish or Oils

Worms really like:

Any fruit and vegetable scraps, peels, chopped into about 1" pieces. Crushed egg shells, coffee grounds including the filter. Tea bags (remove staple) dirty paper towels, paper napkins. Cut/rip up everything up before placing in the bin. The smaller your chop it, the faster you will have end product. Keep an eye on acidity - avoid too much coffee grounds and citrus peels and too much liquid. Start feeding slowly; avoid overfeeding. Add more food scraps after the worms have processed most of the scraps in the bin. Bury the food scraps in the bedding and cover to avoid fruit flies. Add more bedding as needed to have space to bury the food.

Ideal temperatures range for worms is 60 to 80 degrees. Avoid freezing temps that will kill the worms. I keep my bin in the garage in winter, and outside in the shade in summer. Convenient location is best so you don't forget it. However, I have left my bin untended for 8 weeks. Provide a large amount of bedding and the worms will eat this when there is not food available.

Harvest

After 2 to 6 months (depends on number of worms, temps, and food quantity) the bedding starts to look like dark rich humus, and the bin fills up, so it is time to harvest.

One way is to spread an old tarp on the ground in the sun and empty the bin. Divide the contents into piles. The worms will travel down into the pile to avoid the light. Scrape off the top layer of compost and set it aside. Wait a few minutes and repeat the process. When mostly worms are remaining, put them back into your bin, add new bedding and start again.

Worm castings will not burn your plants and castings hold 2-3 times their weight in water. The compost you harvest can be used to amend your garden soil, top dress potted plants and veggies. Add 20% bio-char for best results.