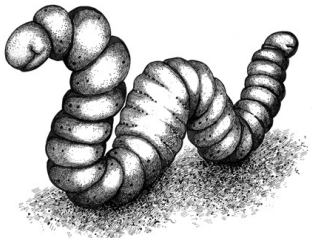
THE UNIVERSITY OF RHODE ISLAND OUTREACH CENTER

HOW TO COMPOST WITH WORMS

THINK BIG WE DO™



Composting with worms (also called vermi-composting) is a practical way to keep valuable food scraps out of the landfill. Worms recycle the food scraps and various types of organic material and convert it into a valuable soil amendment called worm castings. This method of composting works extremely well indoors.

Step 1: Making or Buying a Worm Bin

Building a worm bin can be very simple and inexpensive. A 10-gallon plastic bin is a good size to start out with. Drill small holes along the bottom & top of all four sides, and a few on the top and bottom of the bin. This will allow oxygen to be distributed through the bin. Worm bins can also be made out of wood containers. There are also many types of worm compost bins available for purchase.

Step 2: Add Bedding

There are many different materials that can be used as bedding for your worms. Eventually the worms will eat the bedding and convert it into castings. Damp shredded newspaper and coconut coir is one example of bedding material. Fill your bin halfway with one or both of these items. Add a cup or two of soil to the bedding which aids in worm digestion.

Step 3: Buy Worms!

Red Wigglers (Eisenia fetida) are recommended for vermicomposting. It is not recommended to use worms from your backyard. One pound of red wigglers will eat about 1.5-2.0 lbs of food scraps a week. Red wiggler worms are available locally at some farmers markets; and breeders can be found online by doing a simple search “ri red wigglers.”

Step 4: Add Food Scraps

Worms will eat all kinds of fresh fruit and vegetable scraps. The smaller you cut, chop or shred the items fed to your worms, the quicker you will have worm castings. You can also feed your worms pet hair, coffee grounds with filter, tea bags and egg shells. Cover up food scraps with some of the bedding that is the bin. Do not feed anything with oil, grease or fat to your worms.

Step 5: Monitoring Moisture

Worms need to live in a moist environment in order to survive. It's a good idea to keep a spray bottle next to your bin. You may find that your worm bin gets too wet. If this is the case, simply add shredded newspaper to reabsorb the moisture. You can also try to drain the liquid and discard. It is not recommended to use this leachate in the garden or on house plants since the material has not been fully broken down.

Step 6: Harvesting the Castings

It will take approximately 3-5 months for the worms to convert the food scraps into castings. There are many ways to harvest castings from your worms. One way is to dump the contents of your bin onto a tarp and handpick the worms from the castings. Another way to harvest castings is by moving all the bedding over to one side of the worm bin. Add new, dampened bedding to the empty side, and start placing food scraps on that side. Over about a one-month period, most of the worms should move over to the new bedding, allowing you to scoop out the relatively worm-free compost. Worm castings become toxic to the worms if left in the worm bin for too long.

Step 7: Using Worm Castings

Castings can be used immediately or stored throughout the year. Castings can be directly mixed with your potting soil, compost or garden soil which assists plants with nutrient uptake. Castings can also be used to top dress indoor or outdoor plants. Combine 1 part castings with 10 parts water to create worm tea (use immediately).

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