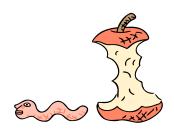
WORM COMPOSTING



Let Worms Eat Your Garbage!

Worms will turn your garbage into worm compost--also known as worm castings or vermi-compost--which is some of the best fertilizer on Earth. Worm composting is a fascinating, fun and easy way to recycle your organic kitchen wastes. Worm composting requires very little work, produces no offensive odors, and helps plants thrive.

Composting with worms helps eliminate the garbage that goes to landfills, improves the fertility and water-holding capacity of your garden soil, and benefits the environment by recycling valuable organic materials. Only a few things are needed to make good worm compost-a bin, bedding, worms and worm food.

Worm Bins

Your bin needs to be only 8 inches to 16 inches deep, since compost worms are surface feeders. You could build your own bin, or use a washtub, dish pan, shipping crate or a commercially available worm bin. Just be sure the bin has a lid to keep out flies and rodents, and holes in the bottom (1/4 inch or smaller) for ventilation and drainage. The rule of thumb for bin size is two square feet of surface area per person, or one square foot of surface area per pound of food wastes per week. Where to Put Your Worm Bin Because worms like moderate temperatures (between 55 degrees Fahrenheit and 75 degrees Fahrenheit), place your bin in a shady location where it will not freeze or overheat. Here are some good choices:

• Kitchen corner • Outside back door • Patio • Basement • Garage• Laundry room

Bedding Materials

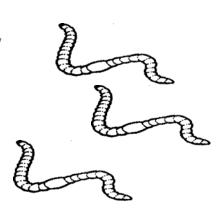
The compost worm's natural habitat is in piles of fallen leaves or manure above the soil surface. These materials can be used for bedding, but sometimes contain centipedes and other organisms that might eat your worms. Black and white newspaper is the most readily available and easy-to-use bedding material. Tear it into strips about one inch wide and moisten so it is as damp as a wrung-out sponge. Peat moss can be used to lighten bedding and absorb excess moisture. A couple handfuls of ground limestone or well crushed eggshells every few months are good for providing grit and calcium. Fill your bin with moistened bedding, toss in a few handfuls of soil, and

you are ready to add the worms and food. Eventually, the bedding will be eaten by the worms along with the food.

Worms



The best kind of worms for composting are red worms, or red wigglers, They often are found in old compost piles, but are different from the earthworms you would normally find in the ground. Their scientific names are Eisenia foetida and Lumbricus rubellus. These worms have a big appetite, reproduce quickly and thrive in confinement. They can eat more than their own weight in food every day. Common earthworms and night crawlers do not survive well in bins, since they normally live under the soil surface. You will need one pound of red worms to get started. You can purchase them at some gardening stores, fishing supply stores and mail-order outlets. Check your yellow pages under fishing suppliers, or order them from your local bait shop.



Let Worms Eat Your Garbage! What to Feed the Worms

Worms like to eat many of the food remains that we usually throw away. Begin feeding your worms only a little at a time. As they multiply, you can add larger quantities of food wastes. Bury the wastes into the bedding regularly, rotating around the bin as you go. When you return to the first spot, most of the food you buried there should have been eaten. If not, don't worry; just feed the worms less for a while. You can feed them: vegetable scraps, fruit peelings, such as apple cores, orange peels, etc.). bread and grains, tea bags, coffee grounds (and filters) non-greasy leftovers, well-crushed eggshells

Do NO1 feed the worms:

Meat, Bones, Twigs and branches, Greasy food Dairy products, Rubber bands or Dog and cat feces



How to Harvest the Compost

After you have been feeding your worms for three to six months you may notice the bedding has been eaten, and you can begin harvesting the fertile worm compost. Harvesting the compost and adding fresh bedding at least twice a year is really necessary to help keep your worms healthy. Here are a few simple methods for collecting your finished worm compost.

Method 1

Move the contents of your worm bin to one side, place fresh bedding in the empty space and bury your food wastes there for a month or so. Harvest the other side after the worms have migrated to the new food and bedding.

Method 2

Remove one-half to two thirds of the contents of your bin, worms and all, and add the worm compost to your garden soil, Add fresh bedding and food to your bin.

Method 3

Spread a sheet of plastic out under a bright light or in the sun. Dump the contents of the worm box into a number of piles on the sheet. The worms will crawl away from the light into the center of each pile and you can brush away the worm compost on the outside by hand. Soon you will have wriggling piles of worms surrounded by donut-shaped piles of worm compost.

How to Use the Compost

Worm compost is more concentrated than most other composts because worms are so good at digesting food wastes, breaking them down in their digestive tracts into simple plant nutrients. Use it sparingly for best results.

Mulching and Amending Soil

To mulch with worm compost, apply a one inch layer to the soil around the plants. Be sure the worm compost is not piled against plant stems. To amend soil, spread worm compost one-half inch to two inches thick over garden soil and mix it in before planting. Mix compost into the bottom of seeding trenches or transplanting holes.

For Houseplants

Sprinkle worm compost around the base of plants to fertilize. Each time you water, plant nutrients will seep into the soil.

In Potting Mixes

For healthy seedlings, mix one part worm compost with three parts potting mix or three parts sand and soil combined. Peat moss and pearlite are also good ingredients to add.

Problems and Solutions

Symptoms	Problems	Solutions
Worms are dying	Not enough food	Bury food into bedding
	Too dry	Moisten until slightly damp
	Too wet	Add bedding
	Too hot	Put bin in shade

	Bedding is eaten	Harvest worm, compost, add fresh bedding
Bin smells rotten	Not enough air circulation, Non-compostable present	Add fresh bedding, Remove meat, pet feces, etc.
Flies in bin	Food exposed	Secure lid, cover food, scraps with bedding, cover worms and bedding with sheet of
Cat thinks bin is a litter box	No lid on bin	Remove cat feces, keep lid on bin

For More Information

Worms Eat My Garbage, 1982, Mary Appelhof, Flower Press, Kalamazoo, M1, 100 pp. <u>www.wormwoman.com</u>

> This information was provided by IDEM -Indiana Department of Environmental Management