

VERMICOMPOSTING

(Worm-Bin Composting)

Tips for the Home Gardener

Vermicomposting, or worm-bin composting, employs certain types of worms to break down kitchen waste. An odor- and pest-free worm bin is easy to build, and will produce refined, nutritious compost for house plants and home garden fertilization.

Reasons to Vermicompost

- ☞ Reduces household garbage and its odors
- ☞ Recycles organic materials to reduce the total amount of garbage going to landfills
- ☞ Avoids pest problems that can affect outdoor compost piles
- ☞ Produces an excellent soil additive, providing humus high in nutrients
- ☞ Is a fun, educational activity for families

Preparing the Worm Bin

Build your own wooden bin or employ a large, plastic, opaque bin with a lid, available at any discount store. Aim for a bin that can hold about ten gallons. Whether it is wooden or plastic, you will need to drill several dozen 1/8"– 1/4" holes in the lid and upper portions of the sides for air circulation.

Gather the ingredients for your worm bin according to the proportions listed in the box on the right. Use water to moisten the bedding before placing it in the box. Sprinkle in the soil, add worms, and keep it in an area that stays between 55° F – 75° F. Worms prefer dark places; basements, closets and cupboards work well.

Feeding Your Worms

Worms can process most organic kitchen and garden wastes. Bury garbage as it is created, rotating the location within the box. The smaller the pieces, the quicker the worms will compost the material. On the next page, you will find a list of items you can and cannot feed your worms.

For each sq. foot of worm bin (6" - 12" deep), you'll need:

- ☞ 1.5 lbs. of bedding (mechanically shredded paper or 2"-wide strips of hand-shredded newspaper)
- ☞ ½ gallon of water (enough to just moisten the bedding)
- ☞ 1 lb. of garbage per week
- ☞ 8 oz. of redworms: Red wigglers (*Eisenia foetida*) are available through compost supply catalogues, on compost supply websites, and at bait shops.
- ☞ A handful of soil, for starting the compost process
- ☞ A few eggshells (for calcium carbonate, a necessary nutrient for healthy worms)

<u>What to feed your worms:</u>	<u>What NOT to feed your worms:</u>
Fruits and peels	Meat, poultry, fish products
Vegetables and peels	Animal bones
Bread and cereal products	Eggs or egg products
Pasta and grains	Cheese and dairy products
Eggshells	Butter, margarine, and oils
Coffee grounds	Mayonnaise or salad dressing
Tea leaves and bags (remove staple)	Peanut butter
Paper napkins	Colored or glossy paper
Shredded leaves (but not oak)	Oak leaves, pine needles, wood chips
Shredded newspaper and cardboard	Fresh grass clippings
Human and animal hair	Glass, plastic, or metal
Dried grass clippings	Pet feces, cat litter

Harvesting Your Compost

Worm castings (fully composted worm wastes) are ready for use after about three to eight months. One way to separate the worms from their castings is to leave the lid off for a day and expose the container to light. The worms will be attracted to the light and climb to the surface. After removing the compost, refill the container with starter material to continue vermicomposting.

A somewhat slower method of removing the finished compost is to move the composted materials to one side of the bin and add new bedding on the other side. After about two months, most of the worms will have migrated to the new bedding. You can then remove the finished compost and refill the empty side of the bin to begin the process again.

To create a nutritious potting mix for use in containers or garden beds, mix the castings with equal amounts of peat moss, perlite, and sand or garden soil.

Longwood's Vermicomposting Display

During the warmer months of the year, visit Longwood's Idea Garden to see a worm bin in action. The Example Garden's Vermicomposting Display showcases a wooden bin of worms busily composting kitchen and garden scraps. During the winter, the worms are moved indoors to a smaller container because they cannot survive freezing temperatures above ground.