

WORM COMPOST...

Easy to Make, Easy to Use



Apartment dwellers and house composters alike compost with worms. Apartment dwellers vermicompost because of space constraints; while some house composters vermicompost only during the colder winter months.

It's easy to set up your own worm composting system. To begin, you will need:

- A container (or bin)
- Bedding
- Water
- Worms
- Non-fatty kitchen scraps

Read on for the detailed "how tos"...

Contact the Recycling Hot Line 625-6800 for:

- Sources of worms
- Plans to make your own wooden worm bin.



Kitchen vegetable and fruit trimmings compost well in a worm bin and in your outdoor compost pile. If you add kitchen trimmings to your outdoor compost, bury them in the middle of the composting materials or they may create odors that attract rodents or other unwanted visitors. Simply burying kitchen waste in your yard may cause similar odor problems.

References:

1. Appelhof, Mary. "Worms Eat my Garbage." Kalamazoo, MI: Flower Press, 1982.
2. Dickerson, George W. "Vermicomposting." http://www.cahe.nmsu.edu/pubs_h/h-164.pdf
3. Cochran, Soni. "Vermicomposting-Composting with Worms!" <http://lancaster.unl.edu/enviro/pest/factsheets/107-97.htm>

For further information, log on your favorite search engine and type in "vermicomposting."



Spokane Regional Solid Waste System

Spokane Master Composter/Recycler Program

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The Master Composter/Recycler Program is sponsored by the Spokane Regional Solid Waste System. Master Composters/Recyclers are volunteers who are working to promote the practice of home composting throughout Spokane County.

Recycling Hot Line 625-6800
Solidwaste.org

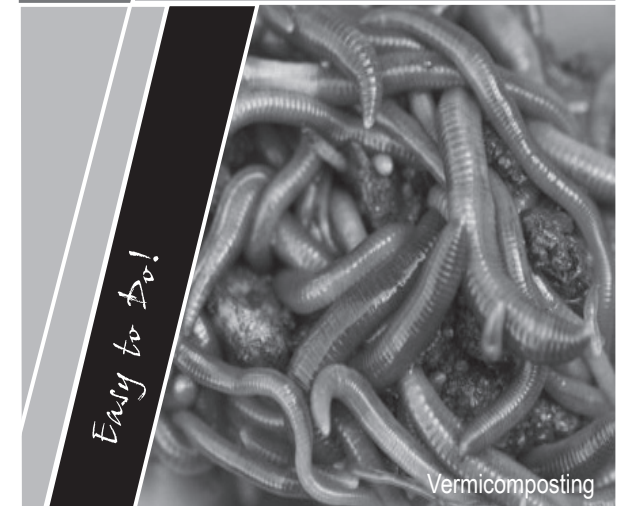
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COMPOSTING

with Worms



Recycle kitchen scraps into rich organic fertilizer.

Inside:

Directions for a simple worm bin.



Simple Worm Bin

Almost any container can become a worm bin, whether opaque plastic, metal or wood. Make sure it will not harm your worms (i.e., no wood preservatives, pesticides, etc.) Follow these steps to make your own simple worm bin.

1. Make (or acquire) A Worm Bin

The container should be shallow (8"–12" deep), yet large enough for the amount of kitchen trimmings (waste) you produce. If you produce one pound of waste per week, you will need a bin with a surface area of one square foot (12" x 12") that is also 8-12" deep. Choose a shallow container because redworms tend to be surface feeders. Odors will be minimized in this aerobic environment.

When looking for a place to keep the bin, consider the worms' needs as well as your own. Redworms tolerate a wide temperature range but they prefer temperatures between 55-77°F (and they die if they freeze). They breathe through their skin so they need moisture but they will drown in too much water. Redworms breathe air and produce carbon dioxide, just like we do, so it is important to allow air to circulate in and around the bin. Finally, locate the bin so it is convenient to use. However, since worms don't like loud noises or vibrations, avoid the top of the dryer, for example.

2. Add Bedding

Many materials make good worm bedding, including shredded newspaper (black ink only), shredded corrugated cardboard, peat moss, leaf mold (partially decomposed leaves) or a combination of these materials. Bedding holds needed moisture, so before adding the material to the bin, wet it until it is as moist as a wrung-out sponge. It must be light and fluffy enough to allow air exchange. The bedding provides a medium in which the worms can work and their food can be buried. Worms actually consume the bedding as well as the food waste so when preparing the bedding, add a little bit of soil or fine sand (grit) to help the worms break down the food. Fill about half the bin with bedding.



3. Add Worms

Redworms (*Eisenia foetida*), also known as red wigglers or manure worms, are the best worms to use for vermicomposting. Begin with two pounds of worms for each pound of kitchen waste produced daily. Once established, the worms will process their own body weight of organic matter each day. The worm population increases/decreases according to how well they are fed. Remember these basics:

- Worms need adequate temperature (55-77°F), moisture (bedding as moist as a wrung-out sponge), and air
- Worms like to live in the dark
- To prevent freezing, keep an active worm bin in a heated garage, basement or kitchen during the winter

Easy First Worm Bin

Here is one way to build a worm bin. Use an opaque plastic tub (24" x 19" by 9" deep) with a lid. Drill 9 air holes, ¼" diameter, in the bottom of the tub. Set a 24" x 19" piece of floating row cover (Remay) in the bin bottom. Put about 4" of moist bedding (see "Bedding") on top of the Remay; place the worms in the middle of the bedding. Add food (kitchen scraps) and cover with bedding. Cut 6-9 slits (X's) in a piece of black plastic the size of the bin; loosely cover the bedding with the plastic to retain moisture and keep the bin dark. Set the bin in the tub's lid. Place something (e.g. wood, corks) between the tub and lid for air circulation under the bin.

4. Add Food Waste

Food wastes that can be composted in a worm bin include vegetable and fruit scraps, crushed eggshells, coffee grounds (and paper filters) and tea bags. **Avoid fats, meat, bones, fish and dairy products as they may produce an unacceptable odor and/or attract unwanted visitors.**

Cover all worm food with bedding to minimize odors. Cover the bedding loosely with a sheet of black plastic with 6-9 slits (X's) cut in the plastic. This will help retain moisture within the bin. Keep the bin dark and allow air circulation. If the bedding dries out, mist it with water. If the bedding becomes too moist, add some dry bedding.

Feed your worms regularly, putting the food in a different area of the bin each time. This will keep the population from becoming too dense in any one area. It may be helpful to keep a small container near the kitchen sink to collect scraps. Leaving the container uncovered will prevent odors but may attract fruit flies. Be careful to not let the lid seal in place on the worm bin (prevents air flow).

5. Harvest Compost

Harvesting the compost (worm castings) involves separating the worms from the castings. The castings are used as plant nutrients and the worms are given fresh food and bedding so they can get back to work making more castings.

There are several ways to harvest worm castings (compost) but the easiest way is:

- Remove the black plastic sheet
- Move all of the bin contents (castings, old bedding, food) to one side of the bin.
- Add fresh, moist bedding and food to the other side and cover with the plastic sheet. Since worms prefer the darkness, they will naturally migrate to the fresh material. This migration may take several weeks.
- Remove the castings. Since dry castings are difficult to use, remove the castings from the bin while they still have a crumbly texture (25-35% moisture).
- Use the castings as a top dressing for houseplants and seedlings, for general garden use, or for the preparation of compost tea.
- Leave the worms to produce more castings.