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## Common Problems

### Unpleasant Odors

Unpleasant odors may waft from your bin when it is overloaded with food scraps. If this occurs, gently stir the contents of the entire bin to add air to the materials. Stop adding additional food scraps until the worms have broken down any food in the bin. Check the drainage holes to make sure they are not blocked and drill more if needed. If the moisture level seems right, the material may be too acidic from adding lots of citrus peels and other acidic foods. Adjust by adding a little powdered limestone and cutting down on acidic scraps. Do not use slaked or hydrated lime, which will kill your worms.

### Fruit Flies

Discourage fruit flies by always burying the food scraps and not overloading the bin. If you keep a small container for temporary storage of scraps, make sure it remains closed until the scraps are emptied into the bin; you may want to store these scraps in a refrigerator or freezer to keep flies out. You might also try using yellow sticky cards to trap flies. You can get these at a garden center or make your own by coating a yellow piece of heavy paper or cardboard with vasoline. If flies persist, move the bin to a location where flies will not be bothersome.

### For More Information Contact...

Recycling Education Program  
Montgomery County Cooperative Extension  
1015 Bridge Road, Suite H  
Collegetown, PA 19426-1179  
Tel. (610) 489-4315



Or read more in the book ...

Worms Eat My Garbage by Mary Appelhof

This brochure was adapted by the  
Recycling Education Program courtesy of  
The Greater Vancouver Regional District.

This publication is available in alternative media on request.

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College of  
Agricultural Sciences  
Cooperative Extension

# Guide to



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## Worm Composting

Worm composting is a natural method of recycling household food scraps. It can be done year-round, indoors and outdoors, by apartment dwellers and householders. Compost is a good soil conditioner for houseplants, gardens, and lawns.

### WHAT YOU NEED

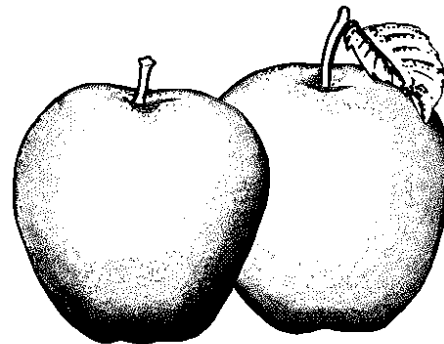
- A container (made of wood or plastic)
- Redworms
- Bedding (shredded newspaper will do)
- Food (fruit & vegetable scraps)

### HOW YOU DO IT (details inside)

Fill the container with damp bedding. Add the worms. Pull aside some of the bedding, bury the food scraps, and cover them with bedding.

### WHAT HAPPENS

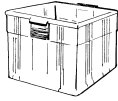
Over a period of three to six months, the worms and micro-organisms eat the organic material and bedding, producing rich compost.



## WORM BINS -- Four Key Ingredients

### The Container

Buy or build a container or use an old dresser drawer, trunk, or barrel. Wood containers are absorbent and good insulators for worms. Plastic containers work but compost in them tends to stay wetter.

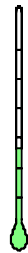


The container should be between eight and twelve inches deep and provide one square foot of surface area for every pound of food scraps per week (i.e. six pounds of scraps per week requires a bin two feet by three feet or two bins one foot by three feet).

Depending on the size of the container, drill 8 to 12 holes (1/4 to 1/2 inch) in the bottom for aeration and drainage. A plastic bin may need more drainage--if contents get too wet, drill more holes. Raise the bin on bricks or wooden blocks for air circulation. Place a tray underneath to collect excess liquid which can be used as liquid plant fertilizer.

Cover the bin to conserve moisture and provide darkness for the worms. Indoors, place a sheet of dark plastic or burlap sacking on top of the bedding. Outdoors, use a solid lid to keep out unwanted scavengers and rain.

Worms require temperatures between 50 and 84 degrees F. They need to be kept out of hot sun, cold, and also heavy rain. Worm bins can be located in the basement, shed, garage, balcony, kitchen cupboard or counter.



### The Worms

Redworms are best for composting because they thrive on organic materials such as food scraps. Redworms go by many names, such as red wigglers, brandlings, or manure worms, but are called *Eisenia foetida* or *Lumbricus rubellus* by scientists.

You can get your worms from a friend's compost bin, purchase them, or, if you feel adventurous, find a horse stable or farmer with an aged manure pile and collect a bagful of manure with worms. The Recycling Education Program can help you find sources of redworms (610-489-4315).

For one pound per day of food scraps (an average amount for a household of 4 to 6 people), you'll need two pounds of worms. If you are unable to get this many worms to start with, reduce the amount of food scraps added to the bin while the population increases.

### The Bedding

Suitable bedding materials include shredded newspaper, cardboard, or fallen leaves; chopped up straw and other dead plants; seaweed; sawdust; dried grass clippings; compost; or aged manure. Adding more than one type of bedding will provide more nutrients for the worms and create a richer finished compost. Two handfuls of sand or soil provide necessary grit for worms' digestion of food.



Fill the bin 3/4 full with a mixture of damp bedding so that the overall moisture level is like a wrung-out sponge. Lift the bedding gently to create air spaces. This helps control odors.

### The Food Scraps

Your worms will eat food scraps such as fruit and vegetable peels, pulverized egg shells, tea bags, and coffee grounds. Do not add lots of citrus fruit as too much citrus will kill the worms. To avoid potential rodent problems, do not add meats, dairy products, or oily foods.



Bury the food scraps by pulling aside some of the bedding, dumping the scraps, and covering them with bedding again. Bury successive loads in different locations in the bin.

## Harvesting Your Compost

After about two to six months, there should be little or no original bedding visible in the bin and the contents will be an earthy brown color. It is time to remove some of the worm castings (finished compost).

The quickest method is to simply move the finished compost over to one side of the bin, place new bedding in the space created, and put food scraps in the new bedding. The worms will gradually move over and the finished compost can be harvested as needed.

If you want to use all of the compost at once, dump the entire contents of the bin onto a large plastic sheet and separate the worms manually. They will move away from the light so try harvesting off the top and working your way downward. Most children love to help! Watch out for tiny, lemon-shaped worm cocoons with eggs inside. Mix a little of the finished compost in with the fresh bedding in your bin. Use your finished compost as a soil conditioner for houseplants, gardens, or lawns.

