



Garden Notes

GN 144

WORM COMPOSTING THE BASIC STEPS FOR CREATING A WORM BIN

Vermiculture or **vermicomposting** is the process of growing worms to produce high quality castings or compost for your garden. All you need to create worm castings is a worm box, bedding material, worms and food scraps.

THE WORM BIN

The worm bin can be made from untreated wood or a purchased dark plastic container can be used. It should be shallow, not more than 1 foot deep. A good size for a family of four is a bin measuring 2 feet long and 4 feet wide. Several smaller bins can also be used.

Air circulation is important. Drill $\frac{1}{4}$ inch or $\frac{3}{8}$ inch holes in the bottom of the wood container. The plastic containers need holes on the top, bottom and sides. Elevate the box off the ground with blocks or bricks. You may wish to place the container on a tray to collect any excess liquids.

THE BEDDING

The following can be used in any combination as bedding in your worm box:

- pine shavings, available at feed stores
- shredded paper
- shredded corrugated cardboard
- dried leaves
- coconut fiber, also called coir

Soak the bedding in water; drain excess water. Always keep the bedding as moist as a wrung-out sponge. One handful of garden soil can be added to give grit, which helps worm digestion. Fill the bin about three-quarters full of bedding material. Cover bedding with black plastic. A sheet of newspaper or corrugated cardboard can also be used.

Place the worm bin in the shade or indoors. The worms will tolerate a wide range of temperatures, but the best temperatures are between 55° and 75° F. The best pH is between 6.5 and 7.

THE WORMS

Use *Eisenia fetida*, also called red wigglers or red worms. They can be purchased at fishing supply stores. Red worm suppliers can also be found online.

FEEDING

Worms love fruits and vegetables, egg shells, used tea bags, used coffee grounds and filters. Do not feed them animal products, dairy, onions, or processed foods; limit citrus peels to less than 20% of the food.

To avoid fruit flies and odors, cover the food with at least 1 inch of bedding. Rotate where you place the food. To speed the composting process you can chop up the food.

HARVESTING WORM COMPOST

The castings are ready when it is dark and fine in texture. Move the dark castings to one side and add new bedding and food in the open spot. When the worms move over to the new food, harvest the dark castings. Place the worm castings in your garden.

TROUBLE SHOOTING

- What do I do if the worm bin smells?
The bin should not smell unless you have too much food added in one place. Make sure you spread out the food and cover the food with lots of bedding.
- Can the worms drown if I put in too much liquid?
If you have holes in the bottom of your bin, you will prevent the worms from drowning.
- How can I prevent unwanted visitors from coming into my worm bin?
Make sure you do not have any holes larger than ¼ inch. Verify the lid is tightly fitted.
- What do I do if I have flies in my worm bin?
Make sure the food is buried and is covered with 3 to 4 inches of bedding.
- What do I do if I have ants in my worm bin?
Water down your worm bedding and keep the bedding moist at all times.
- Should I worry if I have soldier fly larva in my worm bin?
Soldier fly larva help compost your food scraps. They are beneficial.
- What do I do when I go on a vacation?
You can water down the bedding and add more food before you go. Include some food in larger sizes so it will take longer to decompose. They will be fine for 2 to 3 weeks as long as they don't dry out.
- How can I protect my worms in an outside bin from the cold in the winter?
You can add a blanket or towel on top of the black plastic bedding cover or over the whole worm bin.

RESOURCES

- *Worms Eat by Garbage* by Mary Appelhof
- www.wormwoman.com
- *The Earth Moved* by Amy Stewart
- www.ciwmb.ca.gov/Schools/Curriculum/Worms/