

## Care and feeding of compost worms

Worms are a low maintenance organic waste management solution, a source for castings, worms to raise and sell, or all three. Your worm castings are a good probiotic fertilizer for your plants or a base for compost tea.

Containers for your worms and substrate can be made from plastic bins, wooden boxes or bathtubs. It is often useful to drill holes in the bottom of your container and keep it over a tray and perhaps resting on some bricks to catch leachate and keep the substrate from becoming waterlogged.

Your worms will need a substrate in which to live. A good starter substrate is simply shredded newspaper moistened with tap water that has been standing for at least 12 hours to allow chlorine to "gas-off". You want your substrate to remain as moist as a wrung-out sponge. Other substrates can include mixtures of compost, potting soil and/or old tree leaves. They might also do well in moistened straw, peat moss, sawdust or "coffee chaff". Nova Scotia soils and composts might be too acid for the worms and require mixing in a sprinkle of pelletized lime. It is onto this substrate that you will be spreading your compost for the worms to eat.

Leave scraps on top of the soil for the worms to eat. If you have problems with flies you can bury the scraps under some newspaper. They will eat just about anything; vegetable scraps, hair, meat and dairy, bread, cellulose and cardboard. Adding a little crushed eggshell will encourage them to breed. As the compost decays and the worms perform their metabolic processes, they will create more water. Check your colony from time to time to make sure it is not drying out, but you will probably not need to water it often. If you do, use water that has been standing, as described above.

Keep worms between 5 C- 40C and away from pets. They should be kept away from the light in a cupboard or basement. If you want to keep your worms outside just be aware that they are not adapted to our conditions. They will be killed by winter at the end of the season and before that will be fair game for racoons, birds and native microfauna.

### **Troubleshooting**

The single most common problem among worm keepers is an anaerobic colony. This means the compost becomes too wet. Oxygen levels are depleted, the biology of the substrate turns toward those microorganisms that are adapted to living in low-oxygen environments. The colony will smell like barf and the worms will flee the premises.

To avoid this don't overwater the colony, and if you plan to start adding lots of compost to the colony, make increases slowly and observe carefully. One small bag of starter worms won't be able to handle all your kitchen waste for about 6 months to a year under optimal conditions. Make sure to drill holes for drainage and aeration. If your colony goes anaerobic, catch as many worms as you can and put them in new substrate. Contribute your old substrate to a compost pile or municipal composting, or even a piece of waste land. There is still good nutrient to be had from the substrate.

### **Taking out castings:**

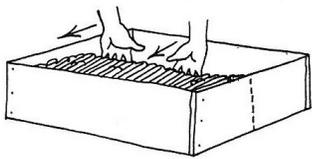
The substrate has been mostly consumed and looks like crumbly black soil. Most (but not all) the food scraps have been consumed and transformed. Your hard work has been rewarded and the black gold you have nurtured is ready to return that love!

Some people add food scraps to one side of the bin and let the other side mature. Then they can take out and use the finished side. Worms don't like bright light. This is the key to moving them to their new home. I spread out the substrate and castings onto a garbage bag and shine a desk lamp onto them. they will crawl away from the light into the middle of the pile. Then I scrape off the top layer of soil, and wait for 10 minutes before scraping off the next inch or so. Eventually there will be a ball of concentrated worms in the remaining soil that can be moved to fresh substrate.

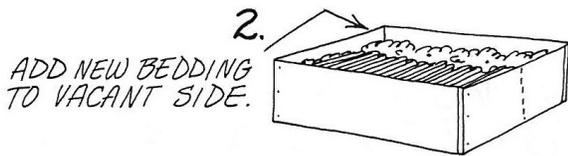
### **Making compost tea:**

One tablespoon per gallon or so of water is sufficient. keep stirring the water as long as you can, then spray the compost tea onto soil and plant leaves. The colony of bacteria will help enhance plant health and even out-compete pests and diseases. Or, you can sprinkle castings onto plants.

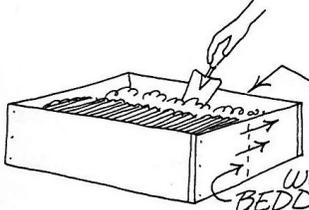
# HARVESTING TECHNIQUE: LET THE WORMS DO THE SORTING.



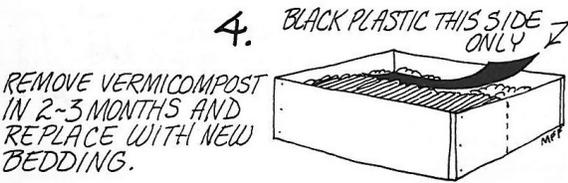
1. PULL VERMICOMPOST AND WORMS TO ONE SIDE OF THE BOX.



2. ADD NEW BEDDING TO VACANT SIDE.

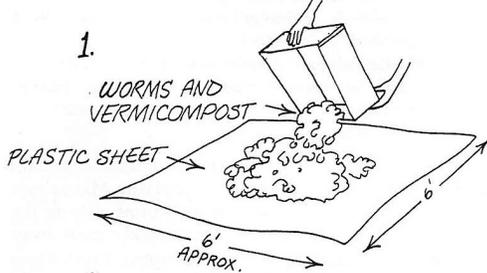


3. BURY GARBAGE IN NEW BEDDING.  
WORMS MOVE TO NEW BEDDING IN SEARCH OF FOOD.



4. REMOVE VERMICOMPOST IN 2-3 MONTHS AND REPLACE WITH NEW BEDDING.

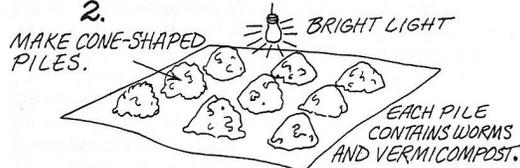
# HARVESTING TECHNIQUES: DUMP AND HAND SORT.



1. WORMS AND VERMICOMPOST

PLASTIC SHEET

6' APPROX.



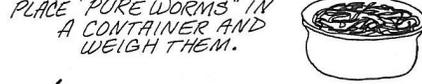
2. MAKE CONE-SHAPED PILES.  
BRIGHT LIGHT  
EACH PILE CONTAINS WORMS AND VERMICOMPOST.



3. WORMS GO TO BOTTOM OF EACH PILE TO AVOID LIGHT. REMOVE TOP AND SIDES.



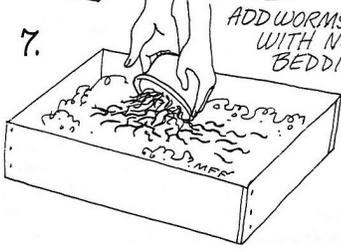
4. AFTER REMOVING VERMICOMPOST, YOU WILL FIND MASSES OF WORMS AT THE BOTTOM OF EACH PILE.



5. PLACE "PURE WORMS" IN A CONTAINER AND WEIGH THEM.



6. SAVE VERMICOMPOST FOR GARDEN AND HOUSE PLANTS.



7. ADD WORMS TO BOX WITH NEW BEDDING.

From Worms Eat My Garbage by Mary Appelhof