Composting At Home

How much organic material do you throw away?

- ~10 percent of waste produced by DC residents is yard waste *(DPW 2007 Residential Waste Sort)*
- ~13 percent of waste nationally is food waste = about 1.5 pounds per person a day *(EPA)*

Composting can reduce your waste volume by 23 percent

Do-It-Yourself Outdoor Compost Bin

What you need:

• Metal garbage can with lid	$15 - 50 depending on size
• Hammer and nail	
• Drill with large drill bit	
• Cinder blocks (optional)	$2 - 4 each
• Pie tin (optional)	$1 - 2
Total cost:	**$15 - 60**

Some local hardware stores also offer cans with predrilled holes for $30 - 50. The District recommends using metal compost bins with a tight fitting lid to prevent rats from chewing through and entering containers.

- Use the hammer and nail to punch air holes into the metal can and the drill to expand the size of the holes. Holes should be about the size of a penny. Organic materials need oxygen to decompose, so put holes at 4-6 inch intervals until you have covered the sides and top of the can.
- Flip the can over and punch a circle of equidistant holes near the center of the bottom for drainage. If you are elevating the bin you can use fewer holes, if you are placing the bin directly on the ground, drill a few more.
- Depending on your method, mount the bin on the cinder blocks and place the pie tin below to collect the "compost tea" which can later be used as a fertilizer. If you are not choosing to elevate the bin, place it directly on the ground or dig a small hole the size of the can and bury the base of the bin.
- Collect material to place in the bin beginning with twigs or wood chips to aid in aeration. Continue to layer materials with yard waste (leaves, grass clippings, woody material, and other organic waste from lawns and backyard gardens).
- Ensure that compost is moist, but not wet. Turn compost with a pitchfork or mixing tool to aerate every 3-10 days. Or you can fasten a bungee cord to the lid and roll the can to aerate. Continue to add material to the bin and use the composting wheel handout to troubleshoot.

It costs less than $50 to start a home composting bin that will for last years. Now you are reducing the amount of waste you produce and producing high quality compost that could cost $8-35 a bag. It takes 6 weeks to a year to recover dark brown, sweet smelling compost depending on moisture, temperature and composition. Place finished compost on gardens or flower beds or share with your friends and neighbors.

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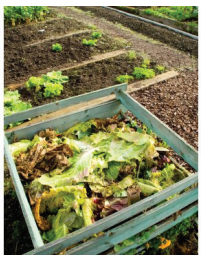
Do It Yourself Indoor Vermicompost

What you need:

• Two solid colored (not clear) 8-10 gallon plastic storage boxes	$5 each
• Drill (with 1/4" and 1/16" bits) for drainage & ventilation holes	
• Newspaper	
• About one pound of redworms	$20-30
Total cost:	**$30-40**

- Drill about twenty evenly spaced ¼" holes in the bottom of each bin. The holes will provide drainage and allow worms to crawl into the second bin when you are ready to harvest the castings.
- Drill about 4 ventilation holes 1"-1 ½" apart on each side of the bin near the top edge using the 1/16" bit. Drill about 30 small holes in the top of one of the lids.
- Prepare bedding for the worms by shredding newspaper into one inch strips. Worms need bedding that is moist but not soggy. Place newspaper in water and squeeze out the excess water. Cover the bottom of the bin with 3-4 inches of moist newspaper, fluffed up. Leaf litter can also be added. Then add a handful of dirt .
- Add your worms to the bedding. Worms can be purchased online. Look for Red Wigglers (Eisenia foetida) or Red Earthworms (Lumbricus rubellus). An earthworm can consume about 1/2 of its weight each day. For example, if your food waste averages 1/2 pound per day, you will need 1 pound of worms or a 2:1 ratio. There are roughly 500 worms in one pound, but if you have too few to start, don't worry. They multiply very quickly.
- Cut a piece of cardboard to fit over the bedding, and get it wet. Then cover the bedding with the cardboard.
- Place your bin in a well-ventilated area such as a laundry room, garage, balcony, under the kitchen sink, or outside in the shade. Place the bin on top of blocks or bricks or upside down plastic containers to allow for drainage. You can use the lid of the second bin as a tray to catch any moisture that may drain from the bin. The "worm tea" you collect is a great liquid fertilizer.
- Feed your worms slowly at first. As the worms multiply, you can add more food. Gently bury the food in a different section of the bin each week, under the cardboard. The worms will follow the food scraps around the bin. Burying the food scraps will also keep fruit flies away.
- Feed your worms a vegetarian diet composed of:
  - o Vegetable and fruit wastes: rinds, cores, peels, cobs and husks, etc.
  - o Anything made out of flour: bread, cookies, crackers, pizza crust, noodles, etc.
  - o Grains (cooked or uncooked): rice, barley, cereal, etc.
  - o Coffee grounds, tea bags and filters.
  - o Old spices.
  - o Outdated boxed foods from the pantry.
  - o Egg shells.
  - o Paper napkins and paper towels.



Troubleshooting:

- If your bin is too wet, add dry bedding (shredded paper), to the top of the bin.
- If you have fruit flies, bury the food in the compost. You can also place of cup a apple cider vinegar in an open container beside the bin. It will attract the fruit flies and they will drown.
- If your bin is starting to stink, it's either too wet, not being aerated or your worms are being overfed. Add dry bedding and to reduce moisture. Check to see that the holes in the bin have not become clogged, and aerate the bin by leaving the top off for a few hours a day until the contents dry out. For overfeeding, stop feeding the worms for four to five days and check to make sure the old food is being consumed.