Compost problems?

| Symptom | Diagnosis | Treatment |
|------------------|--|---|
| Unpleasant odour | Too much food | Stop adding food. |
| | Not enough air | Gently stir contents (aerate). |
| | Too moist | Ensure proper drainage: check that the drainage holes are clear, or drill more holes. |
| | Too many acidic foods (citrus, coffee grounds) | Cut back on acidic foods. Add a little dolomite lime or ground eggshells. |
| Fruit flies | Food left exposed | Always bury food. Cover surface of bin with plastic sheet, old carpet, or sacking. |
| | Too much food | Don't overload the bin. If problem persists, move the bin to a location where the flies won't bother you. |

Questions?

Call the Regional Compost Hotline at 604-736-2250. Read *Worms Eat My Garbage* by Mary Appelhof. Flower Press: Kalamazoo, 1997.

Locate worm bins and workshops:

Your municipality may have worm bins or a workshop program available to you. You can also purchase a 53-litre storage bin and drill drainage holes in it, or build your own from scratch. Call the Regional Compost Hotline for help on finding a worm bin.

How to use your compost:

• Fertilizer:

Use your finished compost as a soil conditioner in plant containers and the garden.

Make potting soil:
 1/3 sifted compost
 1/3 soil
 1/3 vermiculite

Use the liquid
 Diluted (one part liquid with
 10 parts water) as a plant fertililzer.
 You can call this worm tea.



Composting replicates nature's way of breaking down vegetation using worms, good bacteria, and other organisms.

Five great reasons to compost with worms

1. Reduce your garbage

Organic waste (such as kitchen vegetable scraps and garden clippings) make up 30% per cent of the household garbage currently being sent to the landfill. Composting your organic waste is a great way to reduce this volume.

2. It's easy

Once your worm bin is established, adding materials and bedding become routine. Everyone in the home can participate and feel good about making a difference.

3. Help the environment

Less waste means less trucks on the road, less methane gas generated from the landfills, and recycling nutrients back into the earth.

4. Improve your garden

Your compost will help your garden soil retain moisture after rain or watering.

5. Reduce use of chemical fertilizers

Keep local waterways clean by avoiding chemical fertilizers. Composting returns nutrients to the garden.

This publication is available online as a PDF

search for *Worm Composting* or its partner brochure for homeowners, *Backyard Composting*, at www.metrovancouver.org

For copies contact the Metro Vancouver Information Centre at 604-432-6200 or email icentre@metrovancouver.org



www.metrovancouver.org

Here's the Dirt: Worm Composting

It's easy to compost with worms we can show you how!



Use worms to reduce your garbage.
Great for apartments, offices, and students — year-round, indoors or out.



Composting with worms:

7 easy steps

- 1. Fill your empty worm bin with a variety of bedding and two handfuls of sand or soil.
- **2. Add water** to the bedding so its overall moisture level is like a wrung-out sponge. Ensure the container is half-full of bedding.
- **3. Lift the bedding gently** to create air spaces. This helps control odours and gives the worms freer movement.
- 4. Add the worms.
- **5.** Add food scraps by pulling aside some of the bedding, dumping in the scraps, then covering the scraps with bedding.
- **6. Bury** successive loads in different locations in the bin.
- 7. Harvest your compost in one to three months.

Harvesting your compost:

Worms work hard and fast. In three to six months, there will be little or no original bedding visible in the bin. The contents will be brown and earthy-looking. It is time to remove some of the finished compost.

The no-mess method

Push the bin contents over to one side and place new bedding in the space created. Place food scraps in the new bedding. Worms will gradually move to the new scraps, leaving the finished compost to be skimmed off as needed.

The some-mess method

If you want all of your finished compost at once, you must separate the worms manually. Most children love to help!

- Dump the bin contents onto a large plastic sheet under a bright light or in the sun
- Make several small mounds on the sheet. The worms will hide at the bottom of each mound to escape the light.
- Scrape off the top of the mounds. Remove the worms and the tiny, lemon-shaped cocoons that contain baby worms.
- Mix a little of the finished compost in with the new bedding, and return the worms and cocoons to the bin.

You will need:

Worm bin container

Most commonly, people purchase a specially-designe worm bin or use a standard 53-litre plastic storage bin. Other options include old trunks, barrels or build-vour wooden bins.



- Bin should be relatively shallow and wide
- 20 to 30 centimetres deep.

Air flow and drainage

Worms need air to breath.

- Drill eight to 12 holes about five centimetres apart in the bottom of the container: if contents become too wet, drill
- Place a tray under the container to capture excess liquid
- Raise the bin on bricks or wooden blocks
- Cover the bin to conserve moisture and provide darkness for the worms
- Indoors, use a lid with drilled holes or place a dark plastic sheet or burlap sacking on top of the bedding
- Outdoors, use a solid lid to keep out unwanted scavengers and rain.

Location

Keep your worm bin somewhere convenient for you to use; in the basement, shed, garage, kitchen or on your balcony.

Keep it out of the hot sun and heavy rain. When temperatures drop below 4°C, ensure your bin is insulated or move it indoors.

Worms

The worms used in a composter are called red wrigglers (also known as branding or manure worms). Get worms from a friend's compost bin, purchase them, or collect them from an older manure pile in a barn. The Regional Compost Hotline at 604-736-2250 can help you find local sources of worms.

You might also be able to purchase a bin and worms from your municipality. Supplies are limited and they go guickly each year.



What to compost:

Green material (acceptable food)

| ~ | Kitchen scraps | Vegetable peelings and rotting fruit. | |
|---|---|---|--|
| ~ | Plant trimmings from your garden Leaves, old flowers, end-of-season greenery. | | |
| ~ | Coffee grounds and tea leaves | | |
| ~ | Eggshells | Rinse and crush. | |
| ~ | Vegetables and fruit | Cut into thumb-sized pieces for faster composting. Note: no salad dressing. | |

Brown material (bedding material)

Use a mixture of bedding to provide more nutrients for the worms and to create a richer compost (worms like variety!). Add two handfuls of sand or soil to the bedding for grit. Because worms do not have teeth, they use the grit to grind their food.

| ~ | Leaves | Shredded fall leaves. | |
|----------|-----------------------|---|--|
| ~ | Newsprint | Shred. | |
| ~ | Cardboard | Cut some into small pieces or shredded. | |
| ~ | Dead plants | | |
| ~ | Brown paper bags | Shred. | |
| ~ | Grass clippings (dry) | | |
| ~ | Straw | Chopped. | |
| / | Compost | | |

Unacceptable materials

| × | Grease, cooked food including rice or pasta, oils | To avoid pest and odour problems, do not compost meat, dairy, oily foods or grains. |
|---|---|---|
| X | Fish, meat, bones | |
| X | Dairy | |

Well-tended worms make great compost.

Worms are living creatures with their own unique needs, so it is important to create and maintain a healthy habitat for them to do their work. If you supply the right ingredients and care, your worms will thrive and make compost for you.