

# Clean North Worm Composting Guide

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*Composting is nature's way of breaking down organic matter and returning it to its purest form.*

## What is worm composting?

*Worm composting* means having a colony of worms—usually *red wigglers*—in an aerated, drained bin to recycle vegetable/fruit scraps and other organic matter into worm compost or *vermicompost*.

## Why compost with worms?

1. **Reduce your trash:** Plant material is a major waste stream going into our local landfill, which is filling up. By composting with worms, you can divert organic waste year round. Each worm can consume its own body weight in organic material every day.
2. **It's easy!** Composting with worms takes little space and is not hard.
3. **Help the environment:** Less organic trash going to the landfill means fewer trucks on the road, less methane gas generated in the landfill, and more nutrients going back to the Earth.
4. **Improve your soil:** Compost makes soil better, adding nutrients and improving soil texture and moisture retention.
5. **Reduce chemical use:** Using worm compost rather than chemical fertilizers means less chemicals in your yard and our groundwater.

## How do worms make compost?

As fruit/vegetable scraps pass through worms, **they convert the scraps to nutrient-rich worm castings**. In their digestive tract, worms have many tiny organisms like bacteria, fungi, and nematodes, which help them break down what they eat.

## How do worms make more worms?

**Under the right conditions, red wigglers produce babies quickly.** They are *hermaphroditic* (both male and female), but it takes two worms to make babies. After mating, each worm lays around three eggs in a tiny cocoon wrapped around its body, then wriggles out of the cocoon and seals it. The cocoon hardens to keep the eggs safe. Babies hatch in about three weeks and begin eating kitchen scraps in your composting bin. They reach maturity at about six weeks, and the reproductive cycle begins again. You can start worm composting with a few worms, and it won't be long before you have many.

## Where can I get a worm composter?

**We sell worm composting kits.** These do not include worms; you can find them online or Clean North's worm composting expert may have some to share. For more information, email [info@cleannorth.org](mailto:info@cleannorth.org).

**If you make your own composter:** Make sure it has a lid to reduce the risk of fruit flies, has ventilation, and is well-drained. A larger, flatter container is better than one that is narrower and deeper.

## Which worm bedding is best?

Composting worms need high-carbon bedding to which you will add their food. **Suitable bedding** includes (you can mix and match):

- Coir (coconut fibre)
- Shredded newspaper/cardboard (avoid coloured ink)
- Straw
- Leaves
- Shredded egg cartons
- Peat moss (tends to be acidic)

**One thing to keep in mind as you set off on this new hobby is that there is no one right way of doing it. Anyone who tells you their way is the only way doesn't know what they are doing — don't follow their advice.**



Source Vermicomposting - Worm Farming Facebook group quick start guide

## What conditions are best for worm composting?

- **Location:** Closet, kitchen corner, or basement can all work *if* other requirements are met.
- **Temperature:** Worms can handle temperatures down to 5°C and up to 30°C but do best mid-range (17-22°C.). Do not let them freeze.
- **Moisture:** Worms like to be moist not wet, like a wrung-out sponge. If bedding seems soggy, add more dry material (see list above).
- **pH:** They prefer a pH of about 5.5 but can tolerate from 4 to 9.
- **Light:** Worms have no eyes, but their skin is sensitive to light so avoid clear bins.

## How and what should I feed my worms?

- **Feed 1-3 times per week.** The smaller the scraps, the faster the composting.
- If you produce a lot of worm food, **store it in the freezer** between feedings to prevent fruit flies.

### Good worm food:

- **Kitchen scraps:** Fruit and vegetable peels and cores; fruits and vegetables cut into small pieces
- **Plant material:** Shredded leaves, flowers, end of season greenery (no dyes/chemicals)
- **Coffee grounds, tea leaves:** Avoid teabags as they may contain plastic
- **Eggshells:** Rinsed and crushed

### Bad worm food:

- **Leaves/stems of plants treated with chemicals**—such as plants sprayed recently with insecticide including insecticidal soap
- **Onions, garlic, mint, spices, citrus**—like many wild creatures, worms don't like smelly/spicy foods
- **Animal products**—meat, bones, milk, cheese, yogurt, other dairy products
- **Foods containing fat/grains**—lard, butter, cooking oil, fried foods, grains, rice, pasta, breads
- **Sauces, dressing, vinegar, salty material**—including softened water
- **Pet/human waste**

## When and how should I harvest my compost?

**Worms produce finished compost in 3-6 months.** It's ready to use when it looks like crumbly chocolate cake and smells earthy and fresh.

### To remove finished compost:

1. **Separate out worms** (fun for kids of all ages!):
  - Dump composter on large plastic sheet or tarp in sun or under bright light
  - Brush into several mounds
  - Wait 5-10 minutes for worms (which are light sensitive) to move to bottom of mounds
  - Remove top part of mounds so only worms/cocoons are left
2. **Replenish composter:**
  - Mix *some* of finished compost in with new bedding in composter
  - Return worms and cocoons to composter
3. **Apply remaining finished compost** to garden or houseplants

If you prefer not to handle worms, push composter contents to one side and place new bedding/food scraps in the empty half. The worms will move over, leaving finished compost on the side they left.

### How can I manage fruit flies?

If food waste sits in a container too long, fruit flies show up. To avoid them, freeze kitchen scraps between feedings. When you put new material in your composter, bury it and leave it undisturbed for several days; live fruit fly eggs, larvae, and pupae will die below the surface.

If you already have fruit flies, **cover the composter surface** with 10 centimetres of fresh bedding and leave the lid off for about a week. Then resume feeding as usual.

#### Here's how we at Clean North feed worm composters to reduce fruit flies:

1. Dig **trench** at one end of box
2. **Add** food waste and **mix** with bedding
3. **Fill/cover** trench with older material
4. Leave **mound** over trench to help you remember which end you last added to
5. Next week, **repeat at other end** of box

### Where can I find more on worm composting?

- **Canadian Wildlife Federation:** [cwf-fcf.org/en/explore/gardening-for-wildlife/how/earth/compost-and-other-natural-fertilizers/vermicomposting.html](http://www.cwf-fcf.org/en/explore/gardening-for-wildlife/how/earth/compost-and-other-natural-fertilizers/vermicomposting.html)
- **Ontario Government:** <http://www.omafra.gov.on.ca/english/engineer/facts/10-009.htm>
- **Vermicomposting – Worm Farming Facebook group:** <https://www.facebook.com/groups/257527807679817/>



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