

Worm Composting 101

Why have a worm composter?

Worm composting is a great way to recycle food scraps and other organic material into a valuable soil amendment called vermicompost. Worms eat food scraps, which become compost as they pass through the worm's body.

Red wiggler composting worms can eat up to half their own body weight a day! Using a worm composter helps keep food waste out of the landfill. When food is disposed of in the landfill it rots in the absence of oxygen and becomes a significant source of methane, a potent greenhouse gas.

WHAT YOU NEED

MATERIALS:

Sturdy Plastic Storage Box with Snap-on Lid
Tray with Lip (slightly larger than box)
Shredded Newspaper
Newspaper Sheets x 7
Sand (1-2 tablespoons)
Wooden Block OR Stone
Approximately 500g Red Wiggler Worms

TOOLS:

Drill
5mm Drill Bit
Eye Protection
Marker Pen
Sanding Block
Bucket of water

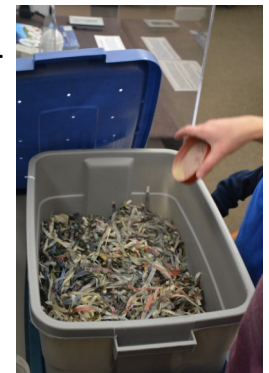


PREPARATION

1. Drill approximately 15 holes in the bottom of the storage box for aeration and drainage.
2. Repeat the process for the lid.
3. Use the sanding block to smooth off holes as needed.
4. Clean out the box and lid to remove any debris. Do not use chemical cleaners - a dilution of water and vinegar solution will suffice.

BUILD THE COMPOSTER

1. Place the bin on the tray, raising it at one end with the wooden block. This allows the air to circulate and creates a diverse environment within the composter.
2. Prepare the bedding. Soak shredded newspaper in water, then wring out the water so the paper is damp.
3. Pull the paper apart so it is loose, not clumped together, and place it in your composter.
4. Continue to fill the composter with wet shredded paper until it is approximately half full.
5. Sprinkle sand on top of the shredded newspaper. This adds grit to the composter, which helps the worms digest their food.



BUILD THE COMPOSTER

- Continue to fill the composter with wet shredded paper until it is approximately two thirds full.
- Dip the full sheets of newspaper into the water, wring out and drain. Place the newspaper sheets as a cover on top of the shredded newspaper to help maintain the composter's moisture content and prevent fruit flies.
- Use the marker pen to write the numbers 1 - 3 (evenly spaced) on one side of the composter and 4-6 on the other side. This divides the bin into 6 feeding quadrants.
- Finally it is time to add your worms! Place them in a pile in one corner of the bin underneath the shredded newspaper. Replace the lid and you are ready to compost!



HARVEST THE COMPOST

Worms don't survive well in their own waste and therefore as the bin fills with compost, it is time to harvest that black gold. To prepare for harvesting, do not add new food to the bin for two weeks.

Regardless of which method you choose, the harvested compost will most likely contain a worm or two. Always remember to freeze the compost before it is used to dispose of any remaining worms. They will eat your plant roots if accidentally set free in the garden!

HARVEST THE COMPOST

Method 1

- Push all of the worm bin contents to one half of the bin, removing any large pieces of undecomposed food or newspaper.
- Put fresh bedding and food scraps in the empty side of the bin. Continue burying food scraps only in freshly bedded half.
- Over the next 2-3 weeks, the worms will move over to the new side (where the food is), conveniently leaving their compost behind. When this has happened, remove the compost and replace it with fresh bedding.
- To facilitate worm migration, use the lid to cover only the new side of the bin, causing the old side to dry out and encouraging the worms to leave.

Method 2

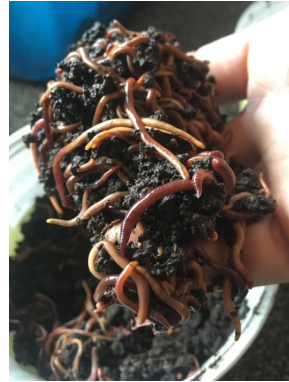
- Empty the entire contents of the composter onto a sheet of plastic.
- Make several individual cone-shaped piles. Each pile will contain worms, compost and undecomposed food and bedding.
- As the piles are exposed to light, the worms will migrate towards the bottom of the pile. Remove the top layer of compost from the pile, separating out pieces of undecomposed food and newspaper.
- After removing the top layer, let the pile sit under the light for 2-3 minutes as the worms migrate down. Then remove the next layer of compost.
- Repeat this process until all the worms are left at the bottom of the pile. Collect the worms and put them back in their bin with fresh bedding.



FEEDING THE COLONY

Follow these simple rules to keep the composter productive and hassle-free:

- Do not feed the worms meat, dairy, bones, oily foods, citrus or tough fibrous foods.
- Do feed them fruit peels and cores (no seeds), vegetable trimmings, tea bags, coffee grinds and filters, and crushed eggshells.
- Roughly chop up foods before adding them to the composter. This helps the worms process the food faster. Provide a variety of food items to keep the worms healthy.
- Start by only giving a small amount of food to the worms, then increase feeding incrementally to figure out how much the colony can handle.
- An accumulation of food scraps in the composter suggests over-feeding. Give the worms time to eat the food in the bin before adding more. Try freezing excess scraps if the worms can't keep up!
- Rotating food deliveries from quadrant 1 through 6 encourages



the worms to travel through the compost bin and consume the bedding and food scraps efficiently.

CARING FOR THE COLONY

1. The right level of moisture in the compost bedding is critical to the worms' survival. If the bedding appears dry, use a spray bottle to add water to the bedding and top sheets. If the bedding seems overly wet, add dry shredded paper to soak up the excess.
2. If a high proportion of worms are crawling up the sides of the bin, it could be a sign that something is wrong. Check the moisture content of the bin and the feeding schedule. Adding too much citrus, for example, can make the composter overly acidic and undesirable as a home.
3. Over time the top newspaper sheet will begin to decay. At this point, rip up the top sheet and add it to the bedding. Replace it with a fresh damp top sheet.
4. If seeds are accidentally added to the composter they will usually germinate. If this happens, simply pull the seedlings out and either plant them or add them back in to the composter as food.
5. Aerate the composter on a regular basis by turning the compost and bedding material with a small gardening fork.
6. The worm composter is an ecosystem in itself, so do not be surprised to find other insects move in. They are an integral part of the composting process and are a sign of a healthy composter.
7. The worm composter should not smell of anything except damp earth. Remove any mouldy food scraps as they appear.
8. Don't give in to the temptation to overfeed the colony prior to a vacation. The worms can last several weeks without added food. If they get hungry they will begin to consume the paper bedding.
9. Just like humans, worms have their optimal temperatures. Aim to maintain the compost bin at around 15°C (60°F).