

Vermicomposting Quick Facts

What is Vermicomposting?

Commonly known as worm composting, vermicomposting is the process of using redworms to convert organic materials including food waste into humus, a nutrient-rich soil conditioner.

Vermicomposting works like regular composting, except worms are used. The worms feed on your food waste turning it into some of the best fertilizer on earth. Vermicomposting can be done in small spaces, such as classrooms.



Why should schools vermicompost?

Using worms to decompose food waste offers several advantages:

- It can reduce garbage disposal costs.
- It produces fewer odors and attracts fewer pests than putting food waste into a garbage container.
- It saves water and electricity that sinks, and garbage disposals use.
- It produces a free, high-quality soil-amendment
- It is a good way to teach students about minimizing waste.
- Schools can earn money by selling valuable compost and extra worms produced.

What do you need to get started?

Worm Bin - A suitable bin can be constructed of untreated, non-aromatic wood, or a plastic container. A wooden box is better if the worms are kept outdoors because it will help the worms stay cooler in the summer and warmer in the winter. If a plastic container is used, it should be thoroughly washed and rinsed before the worms and bedding are added. The bin size depends on the amount of food schools compost. A general rule is one square foot of surface area for each pound of garbage generated per week.

Bedding - The worms need bedding material in which to burrow. It should be a non-toxic, fluffy material that holds moisture and allows air to circulate. Suitable materials include shredded paper (such as black-and-white newspapers, paper bags, computer paper, or cardboard); composted animal manure (cow, horse, or rabbit); shredded, decaying leaves; peat moss (which increases moisture retention); or any combination of these. Do not use glossy paper or magazines.

Water - The bedding must be kept moist (but not wet) to enable the worms to breathe. Worms take in oxygen through their moist skin.

Worms - It is important to get the type of worms that will thrive in a worm bin. Only redworms or "red wigglers" which are "composting worms" should be used (do not use night crawlers or other types of worms).

Food Scraps - Feed worms any organic waste such as vegetables, fruits, eggshells, tea bags, coffee grounds, paper coffee filters, and shredded garden waste. Do not add meat scraps or bones, fish, greasy or oily foods, fat, tobacco, or pet manure.

Vermicompost Bin Assembly

Setting up a bin is simple and can be done in just a few easy steps!



Step 1: Choose a container. drill $\frac{1}{4}$ " - $\frac{1}{2}$ " holes in the lid and around the upper rim of container.



Step 2: Add enough bedding (coconut coir pictured) to cover the entire bottom of the container.



Step 3: Add water to the coir.



Step 4: Add enough water to dampen all the coir. The coir should be moist to touch.



Step 5: Gather a handful of shredded paper. Wet shredded paper for 24 hours, wring out, and fluff



Step 6: Add the damp paper to the container with the damp coir material.



Step 7: Mix shredded paper and coir together.

Once you have prepared the container, you are ready to start your vermicomposting journey by adding worms and food scraps.

Troubleshooting Guide

- If your bin is too dry, try adding a piece of food with a high-water content (such as apples or berries) or add a little wet shredded paper.
- If your bin is too wet, try adding strips of dry shredded paper.
- If you detect an odor from your bin, try feeding the worms a bit less food.
- If you experience fruit flies, try burying the food under the bedding when adding it to the bin.

For more information about Vermicomposting, visit IDEM's Environmental Education page at:

<https://www.in.gov/idem/iee/>