



Vermicomposting

Office of Program Support

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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 is similar to 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:

- Reduces water and electricity that a garbage disposal would use.
- Produces fewer odors and attracts fewer pests than putting food wastes into a garbage container.
- Creates a free, high-quality soil-amendment.
- A good way to teach students about minimizing waste.
- Schools can earn money by selling the valuable compost and extra worms produced.

What do I need to get started?

The materials needed to start a vermicomposting system are simple and inexpensive. Materials include a worm bin, bedding, water, worms, and food scraps.

- **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 will compost. The 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.
- **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 “wrigglers” 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.

Where can schools get more information?

- For more information, contact the Indiana Department of Environmental Management’s Office of Program Support at 800-988-7901 or visit www.recycle.IN.gov.
- IDEM’s Environmental Education homepage: www.idem.IN.gov/iee.
- United States Environmental Protection Agency: <https://www.epa.gov/recycle/how-create-and-maintain-indoor-worm-composting-bin>.
- Sustainable Management of Food: www.epa.gov/sustainable-management-food.