



garbage to
GARDENS
Compost Grows

COMPOST grows

WHAT IS COMPOST?

Composting is the natural process of breaking down organic matter—anything that comes from a plant or animal—into nutrient-rich material called compost. This process is carried out by millions of decomposer organisms like worms, mites, fungi and microscopic organisms. Composting transforms organic waste from an unstable, rotting state to a stable, rich, earthy state.



ROBERT QUEEN

WHY COMPOST?

■ IT'S EARTH FRIENDLY

Almost 25 percent of American household waste is composed of food scraps or yard waste. This means that 59 million tons of the materials in our landfills could have been composted instead. Composting saves landfill space, saves resources and returns valuable material to productive use.

■ IT ENRICHES SOILS

Compost helps improve soil structure, increases the soil's ability to hold water and air, enhances soil fertility and stimulates healthy root development.

■ IT HELPS PREVENT POLLUTION

When organic materials are landfilled, they produce methane, a greenhouse gas 21 times more powerful than carbon dioxide. Composting these materials means they don't go to the landfill and are put to work in farms and gardens instead.

■ IT'S EASY

Composting can be as easy as you want to make it. For an easy compost pile, just layer green and brown wastes.

COMPOSTING FAQs

Q: Can I compost my pet waste?

A: Pet wastes from cats, dogs and other pets contain pathogens that can be transmitted to humans. Most home composting operations don't reach the temperatures needed to destroy these pathogens. Manure from plant-eating animals, such as horses, rabbits, goats or other animals can be safely composted in a hot pile (see directions on this poster).

Q: What happens to my compost during the winter?

A: The composting process produces heat as a byproduct, which means that many compost piles will stay warm and keep working well after temperatures dip below freezing. In a cold Wisconsin winter, though, most home compost piles will eventually slow down or freeze. Don't worry; composting will start again as spring sets in. To keep composting throughout the winter, you can use a covered pile bin. Tip: make a hole in the compost pile before it freezes and keep a container of dry browns nearby. Put your food scraps in the hole and cover with a couple of inches of the browns.

Q: How long will it take to produce usable compost?

A: Depending on which method you choose, composting can take anywhere from 3-18 months. Chopping or shredding compostable materials into smaller pieces and turning the pile regularly (about once per week) will speed up the process.

Q: Will my compost stink?

A: Compost should smell like soil. Always bury food waste in the pile to prevent odor and keep away pests. If your compost is smelly, that's a sign that it needs more air. Turn the pile regularly to promote breakdown and aerate the pile.

Q: How often should I turn my compost?

A: You can turn your compost as often or as little as you would like. Easy compost (see directions on this poster) can be turned often or not at all. Hot piles should be turned about once a week. In general, turning compost on a regular weekly schedule will help produce finished compost more quickly.

Q: How will I know when my compost is ready to be used?

A: Completed compost is dark brown, crumbly, and has an earthy odor. You should not see any of the original materials in completed compost.

Q: What can I do with finished compost?

A: Compost can be added to lawns and gardens as a soil amendment to improve soil structure and health. Compost can also be used as mulch to reduce weeds, prevent erosion and maintain moisture.



DNR FILE PHOTO

Poster content credits: Kathleen Kiefaber, Sarah Murray, Elisabeth Olson, Bridgette Valdez-Kogle, Joe Van Rossum and Brad Wolbert
Artist: Special recognition to Drew Wandschneider, a student from Cedarburg High School, for his winning design in the *Garbage to Gardens: Compost Grows* Poster Design Contest



Wisconsin Department of Natural Resources
Bureau of Waste & Materials Management
PO Box 7921
Madison, WI 53707
(608) 266-2111
DNRWasteMaterials@wisconsin.gov

The Wisconsin Department of Natural Resources provides equal opportunity in its employment, programs, services, and functions under an Affirmative Action Plan. If you have any questions, please write to Equal Opportunity Office, Department of Interior, Washington, D.C. 20240.

This publication is available in alternative format (large print, Braille, audio tape, etc.) upon request. Please call 608-266-2111 for more information.



COMPOSTING IS AS EASY AS

1-2-3

- 1 CHOP MATERIALS** if you want them to break down more quickly.
- 2 MIX** "browns" with "greens."
- 3 KEEP COMPOST AS MOIST** as a wrung-out sponge. Water as needed to maintain moisture balance.

A basic compost pile needs only four ingredients: browns, greens, air and water. Browns are carbon-rich, dry materials like branches, leaves, paper and sawdust. Greens are nitrogen-rich, moist materials like grass clippings, fruits and vegetables.



ROBERT QUEEN

GREENS

- Fruits and vegetables (cooked or uncooked)
- Breads and grains
- Coffee grounds and filters
- Grass clippings and young weeds
- Paper tea bags (staple removed)

BROWNS

- Cotton or wool rags
- Dryer and vacuum lint
- Eggshells
- Nut shells
- Fireplace ashes
- Sawdust
- Hay and straw
- Chopped yard trimmings (leaves, branches, twigs)
- Houseplants
- Used potting soil
- Wood chips
- Leaves
- Shredded newspaper
- Cardboard rolls
- Clean paper, including lightly used paper towels and napkins

WHAT NOT TO ADD:

- Metal, glass or plastic
- Meat, fish or bones
- Dairy products, grease, lard or oils
- Pet wastes, including cat litter
- Soiled diapers
- Black walnut tree leaves or twigs
- Yard trimmings treated with chemical pesticides
- Treated or painted wood

CHOOSE A COMPOSTING SYSTEM:

You don't need many materials to start composting. Choose a composting system—bin, pile, or wire or wood enclosure—and add your compostable materials. Choose which system is best for you. See below:

COVERED BINS

- For fruit, vegetable and yard trimmings
- Require a lid and no holes bigger than 1/4"

OPEN PILES AND WIRE OR WOOD ENCLOSURES

- Easy to construct, no lid necessary
- Require active composting (chopping and weekly turning) to keep animals away

EASY COMPOSTING

For yard trimmings only

INGREDIENTS: yard trimmings (greens and browns), water

DIRECTIONS: Feed chipped or unchipped yard trimmings into the bin or pile as you generate them.

Maintain compost by keeping it as moist as a wrung out sponge.

Harvest rich, brown compost from the bottom and center of the pile after 12-18 months.



DNR FILE PHOTO

MIXED COMPOSTING

For fruit and vegetable waste and yard trimmings

INGREDIENTS: fruit, vegetable and yard trimmings (greens and browns), water

DIRECTIONS: Put yard trimmings in your pile as you generate them. Chop materials into pieces 6" or smaller for faster composting. Bury food scraps in the middle of the pile to avoid rodents or pests. Layer browns and greens together.

Maintain compost by watering as needed to keep the pile as moist as a wrung-out sponge. Turning the pile about once a week will speed up the process, but it is not necessary to produce compost.

Harvest rich, brown finished compost by sifting out coarse, unfinished material after three to eight months. Use the unfinished material to continue your pile.



ROBERT QUEEN

WHAT IS VERMICOMPOSTING?

Vermicomposting uses worms to process organic material. Because vermicomposting can be done inside, it's a great option for those living in apartments, or school groups.

To start your own vermicomposting process you need only a few simple materials:

1. Bin for worms
2. Biodegradable bedding (shredded paper or cardboard)
3. Worms
4. Food waste

THE BIN:

Choose a bin for your worms that is less than 18" deep and has a large surface area. The bin can be metal, untreated wood or plastic. Choose a bin size depending on how much food waste your home or classroom produces. A general rule is to allow two square feet of bin space for every person in your household or classroom. Drill 1/4" wide drainage holes in the bottom of your container.



ROBERT QUEEN

THE BEDDING:

Bedding gives your worms a place to work and rest and helps maintain moisture balance in the worm bin. Use light, fluffy, biodegradable materials free from pesticides or chemicals. Good choices for bedding are thinly shredded newsprint or computer paper or shredded cardboard. Plan on 5-8 pounds of bedding for a 2'x2' box; 9-13 pounds for a 2'x3' box. Pour in three pints of water per pound of dry bedding and mix well.

THE WORMS:

Vermicomposting uses a special kind of worm called redworms, which eat a large amount of food waste and live well in captivity. Do not use nightcrawlers or other garden worms.

Redworms can be purchased from growers, bait shops, some garden centers or online. One pound of worms can process up to a half pound of organic material per day. For a 2'x2' bin, use one pound of worms.

THE FOOD:

Worms are not picky eaters; they will munch happily on most organic waste you would put in your compost pile. To get started, feed your worms peels and other vegetable waste, coffee grounds and tea leaves, plate scraps, egg shells and spoiled foods (not dairy). DO NOT feed your worms meat or bones as these smell rotten quickly. Kitty litter, cat or dog feces, or any non-biodegradable materials should also not be put in the worm bin.

To begin vermicomposting, bury organic materials into the bedding and sprinkle worms on top. Add food waste as you create it, but be careful to not put in more than your worms can eat. After three to four months your worms will be thriving and you will be able to harvest castings for use on your lawn or houseplants.

For more information about vermicomposting, see the DNR's webpage: dnr.wi.gov/org/caer/ce/eeek/earth/recycle/compost2.htm