



# Composting at Home



## What is Compost?

Referred to as "black gold," Compost is decomposed organic matter. Organic matter refers to any material that was originally created by living organisms (plants and animals).

You'll need 4 components to make compost: air, water, greens, and browns.

Greens are rich in nitrogen and are usually fresh, containing more moisture. They include coffee grounds, food scraps, and fresh grass clippings. Browns are drier and rich in carbon. They include dried leaves, straw, and wood chips.

Healthy compost contains an equal mix between greens and browns.

## Benefits of Composting

### Enrich the Soil

Adding compost to your garden enriches the soil, helps retain moisture (less watering for you!) and can help keep away pests and plant diseases.

### Reduce Use of Artificial Fertilizers

Compost is a natural fertilizer, meaning you won't need to use chemical fertilizers to restore nutrients like carbon and nitrogen to your garden (chemical fertilizers are often made from fossil fuels).

### Restore Nutrients to the Soil

Beneficial bacteria and fungi love compost! These organisms can help break down organic matter to return nutrients to the topsoil.

### Reduce Greenhouse Gas Emissions

Food scraps need oxygen to break down, otherwise they'll release methane (a greenhouse gas more potent than carbon dioxide). Reduce your carbon footprint and help reduce methane emissions in landfills by composting your food scraps instead of throwing them away!

## 3 Primary Methods

- **Aerobic:** Air (oxygen) helps break down organic matter. The most common type of home compost.
- **Anaerobic:** This is what happens in landfills. Waste is sealed off from air to decompose. This can attract bad bacteria and produce methane, a greenhouse gas (not recommended for home use).
- **Vermicompost:** Worms, air, and moisture decompose organic materials. A vermicompost can be set up outside or in your kitchen.

## How to Start Composting

### Backyard Composting (Aerobic)

Pick a dry, shady spot with access to water for your compost pile. Add browns & greens as you collect them over time. If your compost is in direct sunlight, cover it to help it from drying out & getting too hot (over 160° F), which can kill good bacteria.

To speed up decomposition, water your compost once a week or so in the warmer months. Turn your compost pile every two weeks: remove the top layer and set it to the side, then the middle layer will become the new bottom layer, the top layer will become the new middle layer, and the bottom layer will become the new top layer.

It can be helpful to have more than one compost pile to rotate use; this way, you can keep adding to one pile while you stop adding to the other to give all the organic matter a chance to break down so that you can use the compost in your garden.

Compost will break down faster in the summer when it's warm and wet, and slower in the winter when it's cold and dry. It can take anywhere from two months to two years to break down, depending on the climate and how hands-on you want to be.

If you'd rather not water or turn your compost, that's okay! Your compost will just take longer to break down.

### Indoor Composting

No space to compost outdoors? No worries! You can compost indoors with a **vermicompost**. See the other side of this sheet for our handy how-to guide!



## Sources

- <http://www.lazycomposter.com/basic-composting>
- <http://www.fao.org/3/a0100e/a0100e04.htm>
- <https://www.epa.gov/recycle/composting-home>
- <https://unclejimswormfarm.com/different-kinds-composting/>
- <https://www.instructables.com/how-to-make-vermicompost/>
- <https://blog.thermoworks.com/thermometer/temperature-essential-ingredient-quality-compost-pile/>



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## Compost THIS

Fruits and vegetables  
Eggshells  
Coffee grounds and filters  
Loose leaf tea  
Nut shells  
Shredded newspaper  
Cardboard  
Paper  
Yard trimmings  
Grass clippings  
Houseplants  
Hay and straw  
Leaves  
Sawdust  
Wood chips  
Cotton and wool rags  
Clothing made from 100% natural fibers  
(cotton, wool, linen, silk)  
Hair and fur  
Wood ashes

## NOT that

**Black walnut tree leaves or twigs**  
(releases substances that might be harmful to plants)

**Coal or charcoal ash**  
(might contain substances harmful to plants)

**Dairy products (e.g., butter, milk, sour cream, yogurt),  
eggs, fats, grease, lard, oils, meat & fish bones or  
scraps**  
(create odor problems and attract pests such as rodents  
and flies)

**Diseased or insect-ridden plants**  
(diseases or insects might survive and be transferred  
back to other plants)

**Pet wastes (e.g., dog or cat feces, soiled cat litter)**  
(might contain parasites, bacteria, germs, pathogens,  
and viruses harmful to humans)

**Yard trimmings treated with chemical pesticides**  
(might kill beneficial composting organisms)

**Dryer & vacuum cleaner lint, tea bags, clothing made  
from synthetic fibers (polyester, nylon, viscose,  
acrylic)**  
can release micro plastics into the environment

## Composting with Worms: How to Build a Vermicompost System for Your Kitchen

You will need:

- 3 plastic tubs (same size)
- 1 lid
- Drill

Optional

- Cooler drain
- spacers (Tupperware, cans, yogurt containers, wood, etc.)

Step 1: Drill 1/4 inch holes 2 inches apart & evenly spaced, forming a grid, across the bottom of two of the tubs. This will allow water to drain into the bottom tub, and worm castings (poop, the composted material) to fall into the middle tub to use in your garden.

Step 2: Drill 1/4 holes (evenly spaced) all the way around the top of the same two tubs you drilled holes into the bottom of. This is to allow air to enter the tubs so the worms can breath.

Step 3 (optional): Drill a hole into lowest part of the bottom the tub that does not have drainage holes to install the drain, which will let you drain liquid without unstacking the tubs. Alternatively, you can unstack the tubs to pour the compost tea out of the bottom tub for use in your garden.

Step 4 (optional): Place spacers inside the bottom and middle tubs (upside down Tupperware, wood, etc.) for the middle and top tubs to rest on, to allow space for water and worm castings to collect.

Step 5: Stack the tubs, with the tub without 1/4 inch drainage holes on the bottom. Add starter material (browns and greens).

Step 6: Add worms. You can either forage worms, or purchase worms online to add to your vermicompost. Continue to add kitchen scraps (and yard waste as needed). The mixture should be moist, but not as wet as a sponge.

Step 7: Make sure to keep feeding your worms, and in a few short months you'll have compost in the middle tub for your garden!