1 Bin Compost System Overview

What is a 1 bin composting system?

Composting is the controlled decomposition of organic matter. Organisms, specifically microorganisms, break down food and yard waste and turn it into compost that can be used to enrich our soil and plants. ***Compost*** is a dark, crumbly, living soil amendment.

Why compost?

Composting has **benefits to soil, plants, and society**. Compost enhances soil health and fertility which improves the growth of our plants. Composting at home also reduces the amount of food waste that ends up in our landfills and allows us to recycle organic material locally!

What can be added to your compost bin?

The composting process requires four key ingredients: **greens**, **browns**, **water**, and **oxygen**. ***Browns*** refer to material that is high in carbon. ***Greens*** refer to material that is high in nitrogen. The microorganisms that break down organic material require ***oxygen*** to breathe and a thin layer of ***water*** around each compost particle to move around.

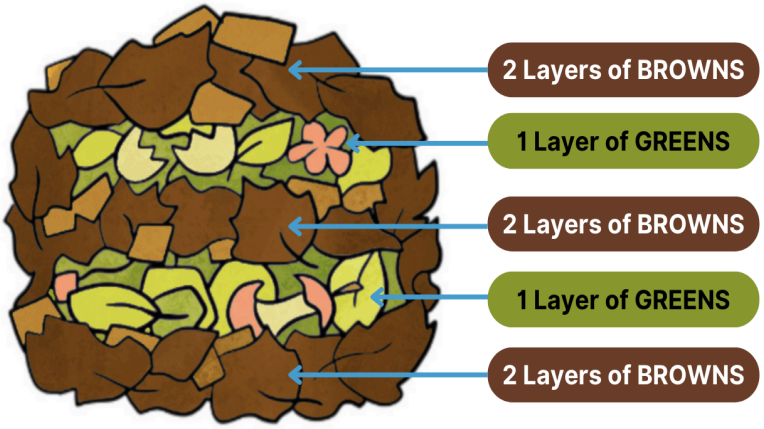
DO NOT ADD: Meat, fish, bones, oily foods, dairy products, eggs, weeds with seeds, “compostable” utensils and bags, glossy paper, or pest-infested plants

Helpful Tips

- **Store brown material in a bin (or open pile) near your compost bin for easy access**
- **Store extra food scraps in a plastic bag in your freezer until you are ready to add them to your compost pile**
- **Chop up large feedstocks as needed --- increasing the surface area of your material helps it break down faster**
  - **Examples: Thick stems, corn cobs, pineapple tops**
  - **2-6 inches is ideal**
- **Cover your green material with a layer of browns. *No food scraps should ever be visible!* - this can help prevent odors and pests**

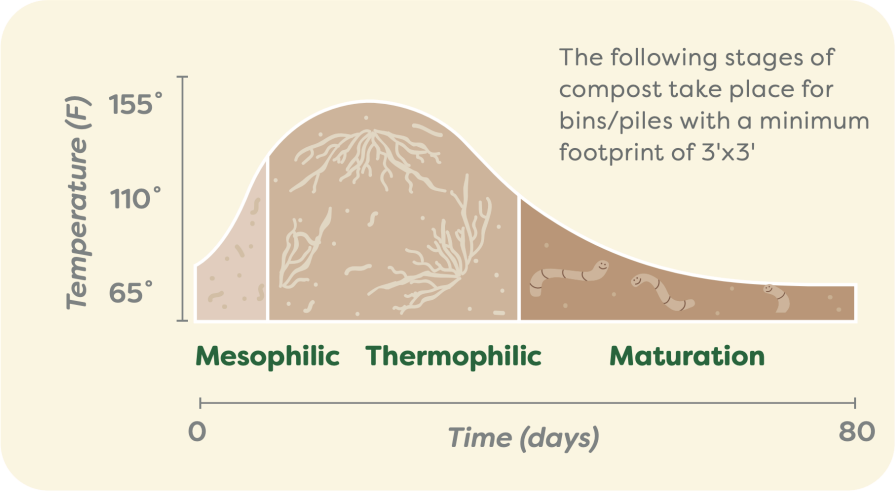
Set-up Information

1. **Step 1**: Identify a dry, shady spot outside of your home
2. **Step 2**: Place your compost bin directly on top of exposed soil so microorganisms can access your compost pile
3. **Step 3**: Add a layer of coarse brown materials at the bottom of your pile to help with aeration
4. **Step 4**: Add alternating layers of green and brown material to your compost pile - this is called the “lasagna” method
   a. Ensure that it follows the **ideal composting ratio** *of **1 part green material to 2-3 parts brown material***



Phases of Decomposition

Organic material is broken down in phases by ***microorganisms***.



Source: LA Compost

Mesophilic Stage *First few days*	**Thermophilic Stage** *2 - 3 weeks*	**Maturation Stage** *6 - 8+ weeks*
➔ Microorganisms begin to breakdown easy-to-digest organic material ➔ Moderate Temperature: **65˚ - 100˚F**	➔ As the material is being digested, the pile heats up, and difficult-to-digest material gets broken down ➔ Temperature: **130˚ - 155˚F**	➔ Microbial activity and decomposition slow down ➔ Temperature: **80˚ - 110˚F** ➔ Mature compost is dark brown in color

Optimal Conditions

1. **Carbon to nitrogen ratio**: **1 part GREENS to 2-3 parts BROWNS**
2. **Moisture Level**: Squeeze compost in your hand, your compost should feel as moist as a wrung-out sponge and form a ball in your hand.
3. **Aeration**: Your pile should be properly aerated. Mix or turn your pile regularly to promote airflow. *Turning your pile*
    a. Provides oxygen to the microbes in your compost
    b. Releases trapped heat and moisture
    c. Helps break apart clumps and “fluffs” material