

LEARN HOW TO COMPOST



WHAT IS COMPOSTING?

You have probably heard of composting before, but what is it exactly? Composting is a natural way to recycle decomposed organic materials. This process of decomposition creates compost, or rich soil.

Once-living organisms will decompose into compost. Composting organic waste at home will return nutrients directly back to the soil to support the “circle of life,” as nature intended.

CA.GOV DEFINES COMPOST AS,

“The product resulting from the controlled biological decomposition of organic material.”

WHEN YOU CHOOSE TO COMPOST YOUR WASTE, YOU CULTIVATE A NATURAL, CONTROLLED PROCESS THAT CONVERTS ORGANIC MINERALS INTO MICROORGANISMS.

Statistics estimate that regular composting at home can remove roughly 500 pounds of organic matter, a.k.a. household waste, each year. This simple act directly benefits the environment by redirecting and repurposing waste once sent to landfills or incinerators.

How do you know if composting is right for you?

THERE ARE SEVERAL BENEFITS TO CONSIDER:



Recycle household waste

If you already put your recyclables in the recycling bin, you're on the right track. Composting organic waste can reduce garbage waste by up to 30%.



Condition soil

Composting directly conditions soil by creating nutrient-rich humus for lawn and garden use; these nutrients feed grass and plants and help retain soil moisture.



Support healthy soil

Composting provides micro-scopic, beneficial microor-ganisms that help aerate soil, decompose organic materials used by plants, and safeguard against plant disease.



Protect the environment

Natural composting can enrich household landscaping without the use of harmful chemical fertilizers.



Save money by reducing water loss

One direct benefit of composting is its ability to improve soil's water-holding capacity; this reduces soil water loss and costly water bills



Conserve natural resources

Composting at home keeps excess garbage out of landfills, which cuts down on fuel needed to transport, process, and compress waste.



Enjoy the fruits of your labors

Once you get started in the process, composting can be satisfying as you make environmentally-friendly choices to reduce household waste and enrich garden soil.

IF YOU'RE NEW TO THE COMPOSTING GAME, here are a few fun facts you may not know about repurposing waste

THE AVERAGE PERSON GENERATES 4.5 POUNDS OF TRASH PER DAY, OR 1.5 TONS OF SOLID WASTE PER YEAR.

According to the EPA, up to 75% of solid waste is recyclable; 60% of landfill waste is organic and compostable.

The average American household generates roughly 650 pounds of compostable materials each year.

If the 21.5 million annual tons of food waste were composted, it could reduce greenhouse gas emissions equivalent to taking over 2 million cars off the road.

Composting can reduce yard waste by 50% to 75%.

Composting can take as little as 10 minutes a week, on average.

Composting cuts down on chemical pesticide and fertilizer use.

Composting can reduce outdoor water expenses by up to 30%.

Composting can bind heavy metals and contaminants to reduce their absorption through plants.

Compost decreases landfill waste, thus reducing one of the most harmful greenhouse gases on the planet—methane gas.

WHY WASTE GOOD THINGS? FOOD AND YARD WASTE

PUT THESE ITEMS IN YOUR FOOD AND YARD WASTE CART

FOOD SCRAPS



fruits

coffee grounds

tea bags

vegetables

bread & grains

nutshells

pasta & rice

eggshells

coffee filters

**paper bags, towels
& napkins**

**greasy pizza
boxes**

**uncoated
food-soiled paper**

**shredded paper (mix
with yard waste)**

FOOD-SOILED PAPER



PLANT & YARD WASTE



**leaves, branches &
grass clippings**

flowers & houseplants

Source:urblivn.com

IT'S TIME TO ROLL UP YOUR SLEEVES AND GET DIRTY!

HERE ARE A FEW IMPORTANT FREQUENTLY ASKED QUESTIONS ABOUT COMPOSTING TO GET YOU STARTED:

Q: Do you need to buy a bin to compost?



How you compost often depends on preference. If you are composting kitchen waste, you can purchase a commercial-quality metal or plastic bin, roughly the size of a washing machine. Other composters recommend convenient, see-through mesh wire bins to hold waste and keep animals out; if you are handy, you can fashion your own mesh bin with chicken wire.

Q: What should I put in my compost pile?

Always add compostable household waste, like lawn and garden clippings, fruit and vegetable scraps, coffee grounds and filters, and horse, cow, and rabbit manure.



Q: What should I NOT put in my compost pile?

Never add oily fish, meats, milk products, non-herbivore animal manure, and diseased plants. Meat products are likely to attract unwanted wildlife & pests.

Q: How long does composting take?

With regular care and maintenance in the right conditions, waste can compost in as little as 1 to 2 months. An unmanaged pile could take from six months to two years to compost thoroughly.



Q: How do you know when the compost is done?

Finished compost is entirely broken down and similar to rich, organic soil; the initial waste ingredients will no longer be recognizable, and the compost pile will not heat up, even after mixing.

PLEASE **DO** PUT IN

Fruit scraps

Tea bags

Vegetable scraps

Nut shells

Non-greasy food scraps (rice, pasta, bread, etc)

Cut or dried flowers

Coffee grounds & filters



PLEASE **DO NOT** PUT IN

Meat

Greasy food scraps

Chicken

Fat or oil

Fish

Dairy products

These foods can cause odor problems and attract pests such as rodents and flies



Source: [GrowNYC.org/compost](https://www.grownyc.org/compost)

10 THINGS TO KNOW ABOUT COMPOSTING BEFORE YOU BEGIN

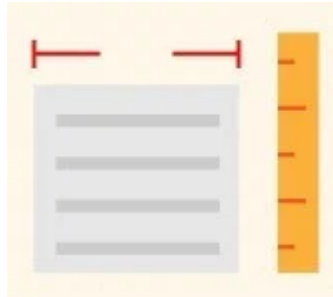
Now that you understand the basics of composting, let's dig a little deeper. Here are 10 essential guidelines to consider before you start

your compost pile:



NEVER COMPOST MEAT OR PET DROPPINGS.

This has been said once, but it is worth saying again. Compost only yard waste, food scraps, and herbivore animal manure (a rich source of nitrogen), if available.



CHOOSE THE TYPE OF COMPOSTING THAT WORKS BEST FOR YOU.

Compost “styles” come in all shapes and sizes and may include standard backyard composting, aerated window composting, aerated static pile composting, vermicomposting, and in-vessel composting.



START COMPOSTING IN THE SUMMER.

Compost fares better at temperatures between 110° and 160°, making summer the prime time to tend your compost pile.



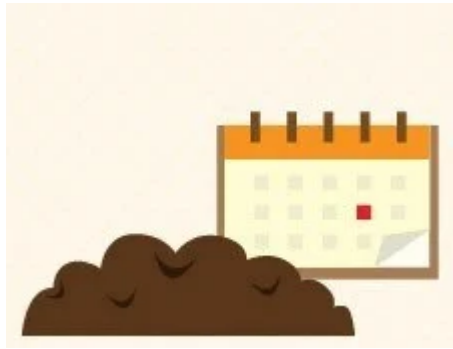
MAKE SURE YOUR COMPOST PILE HAS PLENTY OF SPACE.

In order for organic matter to decompose, it needs air and “porosity,” or airflow, within the pile.



PREPARE WASTE BEFORE PUTTING IT IN THE COMPOST PILE.

Particle size matters to support decomposition and porosity; chipping, grinding, or shredding waste materials will provide more surface area for microorganisms to feed on. “Brown” materials can be shredded, including leaves, paper, and cardboard, to better distribute moisture and air to breakdown matter.



USE FRESH COMPOST A FEW WEEKS BEFORE PLANTING YOUR GARDEN.

Once compost is ready, it will need several weeks to work into garden soil; mix and allow the organic nutrients to settle before planting.

YOUR COMPOST PILE NEEDS NITROGEN

Microbes that break down organic matter also need nitrogen to support their proteins; green ingredients like kitchen scraps, plant clippings, leaves, and manure are recommended.

YOUR COMPOST PILE NEEDS THE RIGHT CARBON-NITROGEN RATIO

Experts recommend a 30:1 C/N (Carbon/Nitrogen) compost pile ratio; one part "green" to two parts "brown" should provide a balanced mix

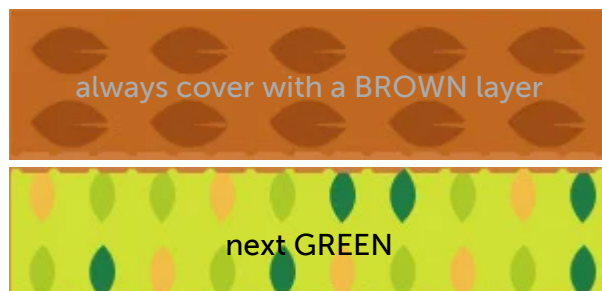
MAKE SURE YOUR COMPOST PILE HAS THE RIGHT BALANCE OF WATER

Connecticut Agriculture Experiment Station agricultural scientist Abigail Maynard, Ph.D., likens the ideal compost pile to a “wrung-out sponge.” Too little water can slow decomposition; too much water can reduce airflow.

YOUR COMPOST PILE NEEDS CARBON

Feed your pile with carbon ingredients to provide the microbes that break down organic matter with an energy source; brown matter like cornstalks, straw, and leaves are recommended.

A Compost Recipe to Feed Your Soil





MIX UP ALL THE INGREDIENTS MAINTANING THE BROWN TO GREEN RECIPE

-  **KEEP MOIST:** As wet as a wrung out sponge.
-  **AERATE:** Air helps to speed up decomposition. Aeration should be done throught the entire composting process.
-  **KEEP COVERED:** Use a compost lid, cardboard or canvas over top of your pile.

HOW TO COMPOST AT HOME

COMPOSTING CAN BE EASY, CHEAP, AND SATISFYING.

Composting enthusiasts call compost “one of nature’s best mulches and soil amendments.” Once you get the knack of composting, it can be used inexpensively and safely instead of chemical fertilizers. Composting is eco-friendly, and it also gives back; using compost on a lawn or garden can help to enhance soil fertility and support healthy plant root development. Clearly, composting is Mother Nature’s friend.

WE’VE ALREADY PROVIDED YOU WITH AN INTRODUCTION TO COMPOSTING IN PREVIOUS SECTIONS.

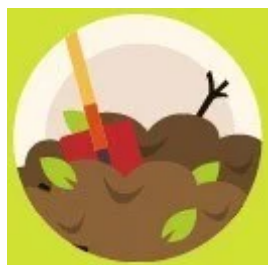
Here is what you need to create the perfect compost pile



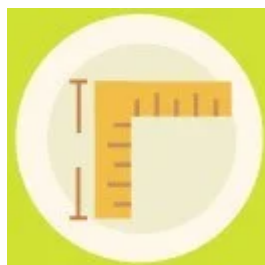
Brown materials (containing carbon)—dead leaves or flowers, straw, or shredded newspaper



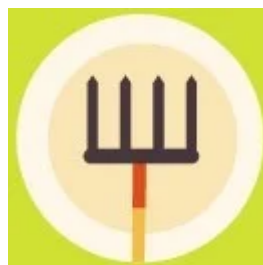
Green materials (containing nitrogen)—herbivore animal manure, vegetable or fruit kitchen waste, or grass clippings



1-2 shovels of garden soil



3' x 3' x 3'
composting area,
up to 5' x 5' x 5'



4-tined pitchfork



Compost
thermometer

COMPOSTING IS ALL ABOUT LOCATION, LOCATION, LOCATION

While creating a compost pile can be straightforward and easy, you should take care in the location you choose. Brown matter found in your yard, like leaves, will compost on their own; however, the goal of a well-maintained compost pile is to speed up this decomposition.

BEFORE YOU PLOT YOUR COMPOST SPOT, CHECK YOUR LOCAL COMMUNITY REGULATIONS.

Some areas may have setback ordinances that dictate how far compost bins must be located from lot lines. Once the red tape is out of the way, look for a compost location that is level with adequate drainage. Composting works best in semi-shaded areas, outside of direct sunlight and wind. Keep your compost pile away from trees, which can root into the pile to seek out water and nutrients.

AS YOU TURN THE COMPOST PILE, THIS CAN CAUSE ROOT DAMAGE

As a bottom line, it is best to choose a compost location that is convenient to you, yet out of direct sight so that it does not bother your family or neighbors.

Compost piles should be covered or kept out of reach of dogs and wildlife. A compost pile should not be placed next to any wooden materials, such as fences, as decomposition will cause decay.

**Keep your home compost pile no smaller than 3' x 3' x 3',
up to 5' x 5' x 5' at a maximum.**

A pile within this range will cultivate the ideal anaerobic environment for compost breakdown.

Now it's time to make your compost pile, step-by-step



Choose a compost pile or bin location.

Remember, a dry, shady spot is best.

1



Spread your first brown layer in the allotted area or bin. Use dry straw, leaves, or cornstalks as a foundation.

2



Add a layer of "green," like fruit and vegetable scraps or plant clippings.

3



Spread a layer of garden soil.

4



Add water to moisten all three layers.

5



Continue with the same layer pattern of brown, green, and a small amount of soil to create a pile 3 feet high.

Layer in a carbon/nitrogen ratio of one part "green" to two parts "brown," as recommended above. This means that you will add more brown than green in the layers you create.

6



Use a pitchfork to turn the compost pile every few weeks, from the center out.

Make sure that the pile stays moist but not damp. It is normal to see steam rise from the pile as you turn, a heat byproduct of decomposition.

7



Optional but recommended:

Use a compost thermometer to check decomposition temperature between 110° and 160°F, normally met within two weeks.

8



Once composting begins, it is up to you whether you would like to add to or maintain your current pile. You can add fresh materials and turn and water regularly during the warmer season, while monitoring temperature with your compost thermometer. Keeping temperatures above 110°F will ensure that your pile remains active with efficient breakdown. Turning the pile weekly will help meet this temperature goal, compared to average compost pile turnover at every 4 to 5 weeks.

Composting is both an art and science that takes practice. Here are several key composting mistakes that you don't want to make:

Putting animal products into the pile.

Putting non-herbivore animal waste into the pile.

Adding only one type of waste to the pile, instead of a variety.

Letting the pile dry out without watering in warmer weather.

Piling compost too densely without room to breathe.

Not meeting the recommended carbon-nitrogen ratio.

Neglecting the pile until it starts to smell or rot.

**Composting is most often considered a backyard job,
but it can also be done
IN AN APARTMENT**

Use these helpful composting hacks to cut down on urban waste



Purchase a sturdy plastic or ceramic container with two lids.



Poke holes in one top lid and the bottom of the container; place the extra lid under the container for water drainage.



Shred newspaper or used paper into 1 inch strips.

Soak paper in water and wring out until moist.



Line the bottom of your container with half of the moist, shredded paper – fill container roughly one third of the way.



Add red wiggler worms and a small amount of garden soil; place container in sunlight.



Add food scraps and bury them into the moist paper strips; always mix in new food scraps when adding to the pile. Add more paper if/when the bin gets too wet.



Place container in a cool place with ample sunshine.



Add and mix food scraps regularly—allow compost pile to sit until scraps have decomposed and then add again.



Use your “black gold” compost to fertilize houseplants or an outdoor garden.

Sources:

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