How to Compost

D o you throw away food scraps or bags of grass clippings? While they may be trash to you now, after reading this guide you'll learn how those leftovers could be saving you money by using them in compost piles!

Composting is the natural transformation of decomposed organic matter into rich, fertile soil. In its completed form, compost looks and feels very much like the soil you might find on your own property but it's rich in nutrients that plants, trees and grass need to grow.

The actual process of composting is relatively simple you can do it yourself with a minimum amount of equipment. You'll also be using ingredients you probably already have around your property that would otherwise be discarded. This means that effective composting doesn't require a major financial investment.

> This eBook is intended to provide useful, easy-to-follow information on how to make compost. Use it as a roadmap to learn how to build a DIY compost bin, start a compost pile, and how to avoid the common composter pitfalls.

Different Types of Composting?

Composting can be classified into several different types based on the materials that are used to prepare the compost and the methods employed to complete the process. These types include:

BACKYARD COMPOSTING

This form of composting makes use of a mixture consisting of two types of materials: carbon-rich "browns," which can include items that may already be readily available in your yard such as leaves, dead flowers, and straw; and nitrogenrich "greens," which can include grass clippings, plantbased kitchen waste, food scraps and the manure from herbivorous barnyard animals. Avoid using manure that is produced by meat-eating animals such as dogs and cats.

WORM COMPOSTING

Apartment dwellers and other individuals who do not have a sizeable yard can make use of worm composting, also known as vermicomposting. This method involves setting up a bin containing worms and shredded bits of newspaper. Raw fruit and vegetable scraps are placed in the bin and consumed by the worms. These materials become compost as they are passed through the worms' bodies.

GRASS-CYCLING

This composting method involves allowing grass clippings to remain on the lawn after mowing. As the clippings decompose, they become nitrogen-rich green compost.

Composting can be further categorized as active (hot) or passive (cold). Active composting is a relatively highmaintenance process that requires regular turning of the compost pile. However, this method tends to yield the fastest results. Passive composting involves placing the materials into a compost bin and leaving it alone. The periodic adding of materials to the pile is the only maintenance required.



COMPOSTING CAN BE FURTHER CATEGORIZED AS

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10 Benefits of Compositing

Composting can be a lot of work, so why put up with all the fuss? The answer is simple: composting can offer a number of valuable benefits for your garden, lawn and the environment in general. It can also lead to better health for you and your family. A few of the many composting benefits include:



Improved soil moisture retention — Organic compost can increase the soil's ability to retain moisture, which can greatly improve your gardening results. You may also need to water your soil less frequently.



Added nutrients to the soil — You'll be adding much-needed nutrients that will improve overall soil health. The nutrients are released slowly over a period of time, allowing your plants to make full use of them.



Reduced waste in landfills — Did you know that approximately one-third of the materials that end up in North American landfills are actually compostable? By making composting a part of your organic gardening practices, you'll help to relieve the burden placed on our limited landfill space.



Reduced pollutants — Limiting waste in landfills decreases the amount of harmful methane that's released into our environment. Organic compost also helps prevent other environmental concerns such as embankment erosion and turf loss.

Beneficial microorganisms – Compost contains microscopic organisms that help to aerate the soil and ward off many types of plant diseases.



No need for chemical fertilizers – A cornerstone of organic gardeners and farmers is avoiding the use of any products containing man-made chemicals. Compost serves as an effective natural fertilizer that can eliminate the need for any chemical-based products.



Pest control — Soil containing organic materials include natural "checks" that make it less hospitable to harmful insects than more "sterile" soil. This can reduce your dependency on pest control products to protect your plants.



Less contaminated soil — Organic compost can absorb harmful volatile organic compounds (VOCs) that may already be in your soil. Examples of VOCs include heating fuels, polyaromoatic hydrocarbons and explosives. This can significantly improve overall plant health.



Health benefits – As composting can reduce your dependency on chemical fertilizers, fungicides, herbicides and insecticides, you'll also avoid introducing these potentially harmful substances into your family's food supply. By improving soil health, composting will increase the nutrient value of your fruits and vegetables.

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The "natural way" — By getting your kids involved in the composting process at an early age, you'll be able to teach them valuable life lessons regarding organic growing and natural living.

What Materials Can Be Composted?

Using the right ingredients is essential for ensuring that your compost is truly organic. When choosing your composting materials, ask yourself the following questions:

- Is it biodegradable?
- Is it free of chemicals or harmful toxins?
- Was it cultivated from a chemical-free lawn that doesn't contain synthetic pesticides or herbicides?

If the answer to any of these questions is "no," then you shouldn't include the ingredient in your compost.

A large number of organic materials commonly found in a home or around a property contain carbon or nitrogen, making them amenable to the composting process.

Here are the most popular materials to add to your compost pile:



PINE NEEDLES



CHICKEN/DUCK MANURE



TABLE SCRAPS

How to Make Your Own Compost

Ready-made compost can be purchased at commercial greenhouses, home & garden centers, landscape supply depots, from farmers or even from commercial compost "manufacturers." However, you can't always be sure of what you're getting or whether the compost is truly organic. You'll also have to bear the additional expense, and you won't enjoy the satisfaction that comes from making your own organic compost.

Assuming you have access to some of the ingredients listed earlier, you can save money and help the environment by learning how to make your own organic compost. Let's take a closer look at how to make active backyard compost.

How to Start a Compost Pile

Backyard compost typically requires constructing a pile of material, so you'll need a place to build and store it. Choose a flat, well-drained area that receives ample sunshine throughout the year. If you live in an extremely hot, dry region, a shady spot is preferable, as it will prevent the compost from drying out. Pick a spot that is over lawn or soil, as this will give earthworms and beneficial decomposing microorganisms easy access to the pile.

USING A COMPOST BIN

Another option is to use a compost bin. A bin is a simple structure that surrounds your compost and helps you keep your pile organized and neat, while preventing nosy neighborhood animals from getting in. It can also improve heat and moisture retention. You can purchase a compost bin or build your own using materials you might already have around your property. Typical compost bin types include:

> **Stationary** – A stationary bin can consist of a cage made from wire fencing, wood or another sturdy material that provides sufficient ventilation. The bin is enclosed on the sides and top, and open on the bottom to allow the compost pile to maintain contact with the ground.



SOURCE: MOTHER EARTH NEWS

Rotating — Rotating bins provide the additional benefit of easy material turning, which is an important component of the active composting process. A variation of the rotating bin is the tumbler, which is enclosed on all sides. The bin is suspended above the ground on a frame, which allows it to be manually rotated. The tumbling action turns the compost, while generating heat and providing an infusion of oxygen. This can significantly decrease composting times.

Tumbling bins are available in various sizes, allowing you to choose the one that is best-suited to the size of your yard, the amount of materials you plan to compost, and the speed in which you wish to complete the compositing process.



SOURCE: INTERNET GARDENER



DIY Compost Bin

If you're handy or don't want to incur the cost of a purchasing a bin, you can construct your own. A DIY compost bin can range from basic to elaborate. Here's an example of how to build a simple stationary wooden compost bin:

MATERIAL - Seven lengths of 2×6 lumber, each cut to 3' in length; four lengths of 2×2 lumber, each cut to 3' in length; 28 galvanized nails, $2\frac{3}{4}$ " long.

ASSEMBLY - Sharpen one end of each of the 2×2 pieces, which will enable them to serve as stakes. Nail each of the 2×6 boards to the 2×2 s, making sure you leave gaps between the boards to allow for filtration. Install the assembled bin by driving the stakes into the ground.

How to Compost One Layer at a Time

Once you have selected your site and placed your bin, if applicable, you're ready to begin building your compost pile. Your compost should include roughly equal amounts of green (nitrogen-rich) and brown (carbon-rich) materials. To get the most from your compost pile, use Safer Brand Ringer® Compost Plus Organic Compost Starter. This organic compost starter contains microorganisms that can boost the compositing cycle and reduce your overall composting time. This natural product targets both green materials such as grass clippings and brown materials such as wood chips and dead leaves.

A layered approach is best when building your compost pile. Begin by spreading an approximately six-inch-thick layer of brown material to serve as the base, and then add a layer of green material on top. Add a thin layer of Compost Plus followed by another layer of brown material. Moisten your accumulation of materials by adding water. Your pile should be damp, but not completely soaked through.

Continue alternating layers until your pile reaches three feet in height, maintaining a ratio of roughly three parts brown material to one part green. Don't make your pile too big or pack down the material too tightly. It needs room to drain and breathe. If you don't have enough materials on hand to reach the three-foot level, just do the best with what you have. You can always add more ingredients as they become available. Add fresh grass clippings each time you mow your lawn and toss your food scraps onto the pile instead of throwing them out.



Maintaining Your Organic Compost Pile

A key difference between active and passive composting is that active composting requires a little extra effort throughout the process. You'll need to periodically turn the pile. Insert a pitchfork or shovel into the center of the pile and move the material to the outside, while moving the outer ingredients to the middle. Turning the pile will hasten the decomposition process by causing the microorganisms to feed on the ingredients.

Turning the pile every 7 to 10 days will shave several months off the decomposition time. You'll also need to keep the pile moist – think of a damp sponge as the appropriate level of moisture. Your compost should be ready in about three months, depending on the size of the pile, how often you turn it and temperature. Passive composting could take a year or two to decompose.

When you insert your pitchfork or shovel into the center of the pile on a chilly day, you'll probably notice steam rising into the air. This is a common characteristic of active or "hot" composting. This indicates that the pile is heating up and the decomposition process is moving forward. You'll be able to tell that your compost is ready to use when all of the ingredients are no longer identifiable. The finished product will be dark brown in color and feel crumbly to the touch.

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TIPS TO CREATE GREAT COMPOST

There are a number of obstacles that could prevent you from having the compost pile you desire. Let's take a look at some of the more common composting issues and how to avoid them:

Insect Infestation — While insects such as earthworms can contribute to a healthy compost pile, there are also certain flying pests that can feed on compost ingredients. In particular, fruit flies can be attracted to exposed fruit and vegetable matter. Keep fruit flies away by covering food scraps with grass clippings whenever you add them to your pile. Ammonia Smell — Healthy compost should have an earthy aroma. If you detect an ammonia smell coming from your pile, it could be a sign that you're not using enough brown ingredients. Try adding more carbon-rich materials such as leaves or straw. Adding lime or calcium can also neutralize any unpleasant odors. Soggy Compost — Excess moisture is a common composting issue during winter and early spring. A wet, soggy compost pile will take longer to decompose. Combining brown materials and adding more carbon-rich materials can usually remedy this problem. If you're using a compost bin, make sure that a drainage channel has been provided to allow excess moisture to drain properly.

Clumping — Materials such as leaves and grass clippings tend to clump when wet, which could slow the composting process. Eliminate clumping by separating these materials before adding them to your pile. Another option is to place them along the outer edge of the pile or bin until they dry, and then mix them in with the rest of the materials. Critter Invasions – Some animals, especially curious raccoons, will be attracted to your compost pile. If you have a heavy raccoon population in your area, you might have to resort to using a covered compost bin to keep them out. If you prefer to keep your pile uncovered, consider applying an organic pest control product around your pile.

Dry Center – While turning your compost, you might notice that the center is excessively dry. This can be a sign that you're not watering it frequently enough. You may need to water each time you aerate to ensure appropriate dampness throughout.

How to Use Compost

In addition to knowing how to make organic compost, here are a few ideas of how to use compost in your garden and lawn.

Seed booster — Kick-start your seeds by creating a mixture of two parts soilless seed mix with one part compost. This will supply your seeds with a steady stream of nutrients, without having to apply a synthetic fertilizing product.

Planting — Make organic compost a part of your planting preparation process. Adding compost with soil in each planting hole will provide essential nutrients to your young plants. It will also enable the timely release of moisture to prevent plant roots from dehydrating.

Bed turning – Add a four-inch layer of compost when turning over a new planting bed for the first time. This introduces additional organic matter that has already passed through the initial stages of breaking down. The compost is already in a form that can be easily absorbed by the plants' root system.



Season-long protection against pathogens – Compost contains beneficial microbes that will often attack and eliminate the pathogens that lead to plant disease. You can activate these microbes by using a rake to scratch a half-inch depression into the soil and add a top layer of compost. Do this approximately every 3-4 weeks during the growing season.

Mulching trees and shrubbery – Compost can be used as mulch that is placed around your trees and shrubs. The compost will improve soil condition in these less-tended areas, while also increasing moisture retention.

Lawn dressing — Applying a layer of compost across the top of a lawn with a clay-based soil will increase soil porosity, which will aid drainage. If your lawn has sand-based soil, compost can increase water retention. You can also apply compost on lawn problem areas to facilitate new grass growth. **Organic liquid fertilizer** — Steeping compost in a bucket of water for several days will yield a concoction known as "compost tea." This is a mild organic fertilizer that can work wonders on the health of the soil in your garden or flower bed.

Potting mix — You can use fully decomposed compost as a potting mix for your smaller container plants. This will help to provide a healthy balance between moisture retention and drainage. For best results, combine the compost with sand, perlite or vermiculite.



What About Using Unfinished Compost?

Using unfinished compost in gardens or flower beds is generally not recommended. This is because unfinished mulch still contains living microorganisms that are likely to compete with the plant roots for nitrogen. This can inhibit growth or cause the plant to yellow. If using unfinished compost around plants, consider adding a nitrogen-based organic fertilizer to the soil. Unfinished compost can be used safely as mulch for lawns and around trees and shrubs.

Get Started on Your Organic Compost Pile

Now that you have an understanding of how to start a compost pile, you can begin reaping the benefits of your own organic compost! As you gain experience, you'll probably develop your own composting process using your favorite ingredients. Remember to think of composting as a form of recycling that can also be an important component of a healthy, organic lifestyle. TO LEARN MORE ABOUT SOIL & HOW IT CAN POSITIVELY AFFECT YOUR GARDENING, DOWNLOAD OUR FREE EBOOK!