

## Home Composting

By Earl Hockin, Master Gardener

Home composting is a sustainable and environmentally friendly practice that allows you to recycle organic waste from your kitchen and garden, turning it into nutrient-rich compost. Many organic materials are suitable for composting. Yard wastes such as leaves, grass clippings, straw, and plant trimmings can be composted. Branches and twigs greater than 1-inch in diameter should be ground up in a shredder or chipper. Kitchen wastes such as vegetable scraps, coffee grounds, and eggshells may also be added.

There are several reasons and benefits from composting your organic waste. First, you are reducing the amount of organic waste that is going to your local landfill. At landfills the decomposition occurs anaerobically which produces methane gas which is more than 20 times more powerful at trapping heat than carbon dioxide. By composting at home, you are reducing the greenhouse gas emissions associated with transportation and decomposition of organic matter in landfills. Second, your compost adds nutrients to feed the microbes that create the nutrients that plants depend upon. It also enhances the soil structure and water retention of your soil. Third, if you add compost to your garden soil and containers, you reduce the need for store-bought fertilizers and soil amendments saving you money. In fact, consistently adding compost to garden soil will, in time, eliminate the need for any commercial fertilizers. Think about the fact that natural forests and fields aren't fertilized. They are supported by naturally composted leaves and plants that decay over time.

For many the common way of composting at home is building a backyard bin. This may be made using pallets or other sources of wood, or concrete blocks. It can even be done by simply creating a pile of kitchen scraps, yard waste and other organic materials and ideally turning it regularly and ensuring it is moist, but not so soaked that it drips if you pick it up. Another option is vermicomposting using redworms, not common earthworms. Fill a bin with bedding like peat moss or coconut coir and food scraps, then add redworms. A third option is using a tumbling compost bin which creates compost faster and keeps pests out.

In-ground or trench composting is a fourth option. In this method organic waste is directly buried in the soil. This is an option for those who do not have a designated compost bin or want a simpler way to recycle kitchen scraps and yard waste. Dig a trench or individual holes about 12 to 18 inches deep. Layer the trench or holes with a mix of green (nitrogen-rich) and brown (carbon-rich) materials. Green materials include kitchen scraps (fruit and vegetable peels, coffee grounds) and fresh yard waste. Brown materials can include dry leaves, straw, and shredded newspaper. You can also compost cardboard, which is best shredded or torn into small pieces. Avoid using cardboard that has tape attached or has printed information. Some of the inks, unlike ink on newspapers, are inorganic. Then cover the materials with a layer of soil to speed up the decomposition, prevent odors and deter pests. If the area becomes dry, then water it as adequate moisture is needed for decomposition. This method is slower than the others, so you need to be patient to see the enrichment of the soil. This type of compost production requires less maintenance than the other options. However, it is definitely slower. Further you have less control compared to actively managed compost bins. Temperature build-up and aeration by shoveling are not possible and you cannot directly monitor the moisture content. It is suitable for woody materials which will break down faster the smaller they are and for kitchen scraps. Be sure to exclude meat, dairy products, diseased plants, and pet waste.

This does take up space in your garden. Personally, I do it only in perennial flower beds or near shrubs and trees. I don't do it where I will be growing vegetables or annuals as it takes a long period for the materials to completely compost. However, in other areas it does offer long-term benefits for soil health and plant growth.

### Resources

North Carolina Extension Gardener Handbook, Part 2, "Composting",  
<https://content.ces.ncsu.edu/extension-gardener-handbook/2-composting>

Backyard Composting of Yard, Garden, and Food Discards

<https://content.ces.ncsu.edu/backyard-composting-of-yard-garden-and-food-discards>

Garden Compost

<https://extensionpublications.unl.edu/assets/html/g2222/build/g2222.htm>

**NEW CLASS:** The next University of Tennessee Master Gardener class at the Sullivan County Extension Office located at 140 Spurgeon Ln, Blountville, TN. starts on **January 30, 2024** and continues every Tuesday for 14 weeks from **10AM – 12noon**

**Call the Extension Office for information and application form.**

**423-574-1919**

**How do I ask a question?**

If you have a question for the Master Gardeners, submit them to us on our website at [www.netmga.net](http://www.netmga.net). Click the link at the top of the page, “ASK A MASTER GARDENER” to send in your question. Questions that are not answered in this column will receive a response from a Master Gardener to the contact information you provide.