

## Leaves and Backyard Composting

One of the most spectacular sites of the fall season is watching the leaves change from green to a myriad of colors as nature's pallet transforms the landscape. From a distance all is wonderful but as the term defines, the leaves must "fall". Those once beautiful colors all meld into a general brown which isn't so bad except that they need to be removed from our lawns, driveways, patios and streets. Although this necessary chore can offer an opportunity for good exercise and fresh air, there is usually an abundance of leaves that we would like to just "go away". Many will be stuffed into bags, twisted, tied and hauled to the curb. They will not go to the landfill because leaves are banned from all landfills in New Jersey. Residential leaf programs, either curbside or dropoff, are provided by many municipalities. Some of those send their leaves to farms approved to accept leaves for mulching and the others utilize special Class C facilities located within the County. A few rural municipalities do not offer leaf collection and homeowners are required to contract privately for leaf removal or manage a backyard composting system for their own leaves. Whether a homeowner bags and hauls leaves to the curb or contracts privately for this service, there is time and money involved in the process, both of which can be saved by using those leaves in a backyard composting system. With nature's help, you can produce your own "black gold", a rich organic matter to improve your soil.

If you have no experience with composting and would like to get started, the fall season is a good time. The most common compost recipe includes fifty percent dry "brown" carbon-rich material and fifty percent moist "green" nitrogen-rich material in alternate layers. However, leaves alone will compost naturally, over a period of time. Inspect the layers of a forest floor to find an example of natural leaf decomposition in the environment.

Find an area of your yard that is well drained and fairly level. A sunny area is fine but may dry the pile requiring you to add water to keep the process active. The microorganisms decomposing the material need moisture. You can begin with a pile of leaves at least 3 feet high and 4 feet in diameter, but no higher than 5 feet by 10 feet in diameter. If the pile is too large, the center will be without oxygen. The microorganisms that are decomposing the material need air. Depending on the volume of leaves the length of the pile could be extended but maintain 5 by 10 feet for height and diameter. As you are constructing the piles keep in mind that as leaves decompose the volume should shrink by almost half.

If you prefer the look and organization of a bin for your compost process there are many styles from which to choose. Bins can be purchased commercially or you can build your own. All bins have a minimum capacity of three to five cubic feet and must be vented to allow air circulation. Most designs are bottomless so the material sits directly on the soil for easy access by necessary microorganisms. Bins can be constructed from common materials such as wire fencing, wooden pallets, cinder blocks or a combination of these materials which will just corral the natural process.

All leaves can be composted, including tough or waxy leaves and pine needles. They just take longer because dead leaves are mostly carbon and lack nitrogen. Water should be added if the leaves are dry so the pile is slightly moist. Shredding will speed up the process. It is not necessary to add any chemicals, activators or soil since leaves already contain a multitude of

organisms. Composting neutralizes the pH of leaves that are naturally acidic or alkaline. Turn the pile once a month to move the outside leaves closer to the center where decomposition is active. In cool weather don't disturb the pile to maintain heat in the center where the process is active. The finished compost is normally ready in 6-12 months. To harvest the composted material, remove the top portion to a new pile. The compost is the dark, crumbly material at the bottom. Screening will remove larger particles which can be added back to the active pile.

Although leaf compost is not considered a fertilizer because it is low in nutrients, it is a wonderful organic amendment serving to improve the texture and moisture retention for all soil types. Adding organic material to the soil will increase microbial and earthworm activity further improving the soil. Leaf compost makes excellent surface mulch in layers of about three inches to protect roots from extreme temperatures, prevent evaporation, erosion and runoff, and prevent soil splatter on leaves and control weeds. Leaves are also the perfect source of "browns" for a compost system that includes kitchen scraps (minus meats, dairy, grease and fats) and other "green" nitrogen-rich materials. A layer of leaves added after every addition of wet, green material will provide the necessary air space and source of carbon needed for decomposition. Layering with leaves can also reduce the need to turn the material since the coarse leaf layer provides air space. A proper compost pile does not have unpleasant odors. Most odor problems are the result of too much wet green material like grass clippings or kitchen scraps. Adding leaves will fix that problem. Stockpile enough leaves in a separate bin or vented bags to last through to the next season. Leaves can also be shredded or used directly as mulch to protect roots from extreme temperatures and moisture loss. Instead of raking, in some cases it is possible "cut it and leave it" using a mulching mower. The small leaf particles can remain on the lawn if not too thick.