

More On Leaves

The leaves of one large shade tree can be worth as much as \$15 (if not more in today's economy) in terms of plant food and humus. Pound for pound, the leaves of most trees contain twice as many minerals as manure. For example, the mineral content of a sugar maple leaf is over five percent, while even common pine needles have 2.5 percent of their weight in calcium, magnesium, nitrogen and phosphorus, plus other trace elements. Since most trees are deep-rooted, they absorb minerals from deep in the soil and a good portion of these minerals go into the leaves.

Actually, these multi-colored gifts from above are most valuable for the large amounts of fibrous organic matter they supply. Their humus-building qualities mean improved structure for all soil types. They aerate heavy clay soils, prevent sandy soils from drying out too fast, soak up rain and check evaporation.

A lawn sweeper is a good machine to use for collecting leaves. Using a sweeper is much faster than hand raking, and a better picking-up job is done. Neighbors will be happy to have you sweep up their leaves-and you will add to your supply of leaves.

You have several options for using leaves at home include:

- Spreading them as a mulch around trees, shrubs, and in planting beds
- Adding them to your compost pile
- Leaving some of them where they fall

Leaves make an excellent mulch for use around trees and shrubs, or in flower and vegetable gardens. They help retard the growth of weeds, help retain soil moisture, help maintain lower soil temperatures in the summer, and protect against temperature fluctuations and some types of low temperature injury during winter. They eventually decompose, adding their nutrients to the soil and improving soil structure.

Leaves make a good addition to your compost pile. Shredding is not required, but it may speed their rate of decomposition. Leaves are difficult to compost alone and will require extra nitrogen in the form of a commercial fertilizer (no weed 'n' feed products), or materials high in nitrogen such as grass clippings. If you have room, you can save leaves to mix with green materials next summer. As a general rule, grass clippings should be left on the lawn, but for those times when you need to collect clippings, it is useful to have leaves to mix with the grass for better composting results.

If you plan to allow leaves to remain on the lawn, it must be done cautiously and should be confined to lawns with only a light covering of leaves. (Grass blades should still be visible through leaves before shredding.) Shredding is recommended; several passes using a mower with or without a leaf shredding attachment will improve your chances for success. Even when shredded, it does not take a very heavy layer of leaves to smother the grass, causing partial die-back, or making it more susceptible to diseases. It is often necessary to remove at least some of the fallen leaves from the lawn.

Leaves from trees with leaf diseases such as apple scab, anthracnose, or leaf spot should be removed or destroyed to prevent over-wintering of the disease organisms in the debris and possible re-infection of new leaves next year. Oak leaves decompose more slowly than other types of leaves and it is best to use them for mulch or compost. In fact, their slower rate of decomposition makes them well suited for use as mulch.

The decision to shred or not shred leaves for composting or mulching is a matter of personal preference and is related to the homeowner's willingness to spend money for the purchase or rental of appropriate equipment. The ability and willingness to perform physical labor and to accept the potential physical risks may also be a factor in this decision. It is best in some cases to hire a landscape maintenance company to do your shredding.

Another shredding option, which may be less effective but is more readily available to homeowners, is using a lawn mower to chop leaves. Most unmodified rotary mowers will at least partially shred leaves. Use of a mulching blade may improve results. Special leaf shredding attachments are available for some major brands of mowers. Some are more effective than others and may include a screen that helps reduce particle size. Always follow the manufacturer's recommendations when using this equipment in order to avoid damage to your mower. Use good safety practices since debris may be thrown from the mower with considerable force and could cause serious injury.

Composting leaves is an excellent way to use leaves but it does require some work to make good compost unless you have room to let nature take its course. Below are some tips on composting.

Building the Compost Pile

You can build a freestanding compost pile, or create an aerated compost enclosure using chicken wire, snow fence, wooden pallets, or lumber. Using these systems you need to maintain enough heat in the center for rapid decomposition. It is recommended that the pile be at least one cubic meter. Some people build two piles, one for active compost and the other as a holding area for new materials. If you're concerned about animal pests or odors, you can purchase a ready-made, enclosed compost system, but properly aerated compost piles free of meat scraps and other animal products shouldn't have those problems. If you purchase a ready-made, enclosed compost system follow the manufacturer's directions for proper use. Acceptable household items for composting include: Apples and peels, cabbage, carrots, celery, coffee grounds, egg shells, grapefruit, lettuce onion peels, pears, pineapple, potatoes, pumpkin shell, squash, tea leaves, tomatoes, turnip leaves. Unacceptable household items (items not to put in your compost): Butter, cheese, chicken, fish scraps, lard, mayonnaise, meat scraps, milk, peanut butter, salad dressing, sour cream, vegetable oil, and yogurt

It is also desirable to omit cooked kitchen waste, grease, meat, bones, and fat unless the bin is rodent, fly, and dog-proof. There should be no problem with odors, but if your pile smells bad, make sure it has enough nitrogen and oxygen (turn it and add more nitrogen). Earthworms, sowbugs, pill bugs, centipedes, mites, ground beetles and many other kinds of small living things will find homes in the finished compost and in the garden soil to which compost is added. They help with the decomposition process and add value to the soil.

To create an environment that encourages efficient decomposition, your compost pile should contain a mixture of carbon materials, fresh nitrogen materials, soil, air, and water. Microorganisms digest carbon as an energy source and take in nitrogen to make proteins. The smaller the material, the more surface area is exposed and the more rapidly they will break down. Examples of carbon sources (Browns) are; cornstalks and corncobs, dry leaves, newsprint, straw and hay, sawdust and wood chips, shrub trimmings, shredded telephone books, wood chips, and shredded uncoated copier paper. Examples of nitrogen sources are; alfalfa, coffee grounds, fruit and vegetable waste, grass clippings, fresh hay, manure (cow, horse, poultry, sheep, rabbit) and Seaweed.

Never include greasy foods; human, dog, or cat feces; meat; bones; or toxic materials. Also avoid adding noxious weeds or diseased plants (although a well-heated compost pile will kill many diseases and weeds).

Other additives sometimes recommended for compost piles are: layers of garden soil (to add additional decomposers), nitrogen fertilizer (if the pile has an abundance of dry materials), and compost inoculants or activators.

Compost is most efficiently made by "aerobic" decomposers that require oxygen. If your pile is too dense or wet, thus poorly aerated, "anaerobic" decomposers will create a foul-smelling mixture. To keep a pile well aerated, place a dry, airy layer at the bottom, and periodically mix in coarse materials like hay. But be sure to water it occasionally: a compost pile should be kept about as moist as a wrung-out sponge.

Maintaining the Pile

During the first few weeks of composting, the center of an active pile may reach about 140 degrees F. The heat produced as decomposition occurs further speeds up the process. Although a pile will eventually compost if left alone, you can drastically increase the rate at which materials compost by turning the pile inside out. By turning the pile, you aerate and mix the materials so they all benefit from the rapid decomposition that takes place in the hot center.

A pile with the right balance of materials and moisture, if turned every day, can completely compost in just a few weeks. A pile left to sit without turning could take many months. Turning the pile even once or twice will greatly decrease the time it takes to finish. Compost is finished when it cools off and decreases to about a third of its original volume. Compost is ready to use when it is dark brown in color, easy to crumble and breaks up readily when turned over. A good practice is to screen the compost through a 1/2-inch screen and return the unfinished material to the bin for further decomposition.

Compost can be used as mulch or worked into the soil to improve its structure. If used as mulch, it should be applied to a depth of two or three inches. The same amount or more should be worked into heavy clay soils. When used in this fashion, compost is valuable to the home owner and gardener. In short, compost is a valuable soil conditioner available to every West Virginian who is willing to invest a little time and effort in working with nature.

If you would like to learn more about composting here are a few websites:

- http://www.hgic.umd.edu/_media/documents/hg35_005.pdf
- <http://ohioline.osu.edu/hyg-fact/1000/1189.html>
- http://compost.css.cornell.edu/Composting_homepage.html

MGT-332: Agriculture and Food Vulnerability Assessment Training

The U.S. Department of Homeland Security (DHS), WV Department of Military Affairs and Public Safety (DMAPS), WV Department of Agriculture, and the Jefferson County Development Authority are offering free Agriculture and Food Vulnerability Assessment Training through the DHS Direct Delivery Program. This training, which has been certified and approved by DHS/FEMA, will strengthen the ability of state and local communities and industry to improve intelligence and operational capabilities for prevention and deterrence of terrorist acts that target the agriculture and food sector.

This is a one and one-half day class that is open to the agriculture and food industry, federal, state, county, and local officials, extension and crop specialists, agriculture crime units, food processors, food transportation, food wholesalers and retailers, food distributors, health department officials, emergency managements agencies, meat and poultry inspection and all others involved with food and agriculture security planning.

When: November 10-11, 2009-- Beginning at 8:00 a.m. on November 10 and conclude at approximately 4:30 p.m. Class will resume at 8:00 on November 11 and conclude at approximately 12:00 p.m.

Where: West Virginia University Tree Fruit Research and Education Center, 67 Apple Harvest Lane (Located On WV Route 9 in Jefferson County), Kearneysville, West Virginia 25403.

Cost: No program fee. Lunch will be provided. WV Law Enforcement Training Committee has approved for 12 hours law enforcement in service hours. Travel and Lodging will be the responsibility of the attendee with NO reimbursement. Registration Deadline is Wednesday November 4, 2009. If you have any questions or require any assistance please contact Roy McCallister or Matt Blackwood, (304)-558-2214 or rmccallister@ag.state.wv.us

Master Gardener to meet November 10 at 7 PM

The Berkeley/Jefferson Master Gardeners will hold a meeting on Tuesday November 10 at 7 PM at the WVU Kearneysville Tree Fruit Research and Education Center. The program for the evening will be Tool Care and Sharpening with Kay Byers, BJMGA. This meeting is open to the public and an excellent opportunity to learn from our Master Gardeners. Hope to see you there.

Berkeley County Extension Office Temporary Move

Just in case you are looking for us we will be temporarily relocated in the County Commission Office on the second floor of our building at 400 West Stephen St. We are still in the same building just located on the second floor while they are putting a new roof on the building.

Garden Tips

- Turn compost
- Remove diseased plant debris
- Apply lime and fertilizer according to soil test results

Until next time ...Happy Gardening and Farming! Happy Veterans Day to all our Veterans and Thank you for serving our country and protecting our freedoms!