Gardening Basics

Leaves for Mulch and Compost

Fallen leaves that accumulate in our landscape are a terrific, free resource! Their benefits include conserving moisture, modifying the temperature of the soil, preventing soil erosion, and reducing weed growth, and when composted, they supply a slow release of nutrients to plants.

There are various ways fallen leaves can be managed, according to Texas A&M AgriLife Extension Earth-Kind® Landscaping.

- Mow a light covering of fallen leaves and leave them in place on your lawn. It's helpful to use a mulching blade to shred the leaves.
- Use the fallen leaves as mulch in ornamental beds, vegetable gardens, and around trees and shrubs. Mowing over them and capturing them in the mower's bag attachment will shred them and is an effective way to distribute them where wanted. Apply 3" to 6" around trees and shrubs leaving a 4" to 6" gap around the plant's trunk or stem (like a donut). In ornamental and vegetable gardens, apply 2" to 4". Shredded leaves are also great to use in garden paths.
- Improve the soil by working 6" to 8" of shredded leaves into clay soil to improve aeration and drainage. Doing this in sandy soil will improve water and nutrient retention in the soil. A light broadcast of high nitrogen fertilizer over the area and keeping the area moist will help decompose the shredded leaves.
- Compost dry leaves along with other yard waste such as grass clippings, small shredded/chipped-up plants, and weeds. Leaves can also be decomposed by themselves into leaf mold that can be used as a soil amendment.

Leaf compost bin, Nate Steiner, CC0 1.0, via flickr

Leaf mold is super easy for homeowners to make and has lots of beneficial uses in your garden. Here's an amazing fact: Leaf mold holds 300% to 500% of its weight in moisture. In addition, when worked into the soil, it improves the soil structure and provides a habitat for good soil organisms like earthworms and beneficial bacteria.

Leaf mold is produced through fungal decomposition, which is cooler and slower than heat-generating composting. Here are some simple ways to make leaf mold:

- Rake the leaves into a pile, moisten them a little, and leave them alone.
- Put the leaves into black plastic bags, wet them down and shake the bags to distribute the moisture, and poke a few holes in the bags. Put the bags in a shady spot and check them every few months to add water if needed.
- Speed up the decomposition process by shredding the leaves and adding a little high nitrogen fertilizer to the pile or bags. Turning the pile with a garden fork and turning over the bags also helps them decompose more quickly.
- Leaf mold is ready to use when it is soft and crumbly, resembling chocolate cake.

Fine ground compost, uacescomm, CC BY-SA 2.0, via flickr

Learn more about leaf mold online via these research-based sources:

- University of Wisconsin Extension https://hort.extension.wisc.edu/2023/09/08/leave-the-leaves-to-rake-or-not-to-rake/
- University of Missouri: https://ipm.missouri.edu/meg/2021/11/autumnLeaves-DT/

There is some question as to whether using leaves as mulch will add too much phosphorus to the soil. According to the University of Massachusetts-Amherst, "Heavy continuous use of compost, manures or other materials as a source of organic matter can lead to imbalances or excess levels of some nutrients after a number of years. As with any soil amendment, it is advisable to periodically test your soil for nutrient levels, pH, and organic matter and adjust your fertilizer and organic matter applications accordingly."

Learn more about soil testing at http://soiltesting.tamu.edu/

Resources

"Autumn Leaves: From Trash to Treasure,", 2 Nov. 2021, Integrated Pest Management, University of Missouri, (accessed 30 Sept. 2025), https://ipm.missouri.edu/meg/2021/11/autumnLeaves-DT/

"Leave the Leaves. To rake or not to rake?," 8 September 2023, Wisconsin Horticulture, Division of Extension, University of Wisconsin-Madison, (accessed 30 Sept. 2025), https://hort.extension.wisc.edu/2023/09/08/leave-the-leaves-to-rake-or-not-to-rake/

Mannino, Vince, Robert Richter, Doug Welsh, and Sam Cotner, "Don't Bag It – Leaf Management Plan", Texas A&M AgriLife Extension Earth-Kind® Landscaping, (accessed 30 Sept. 2025), https://aggie-horticulture.tamu.edu/earthkind/landscape/leaf-management-plan/

"Soil, Water, and Forage Testing Laboratory", Texas A&M AgriLife Extension Service, (accessed 30 Sept. 2025), http://soiltesting.tamu.edu/

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