

Improve Your Soil by Raking Less

by Terry Ettinger

If you dread the annual fall leaf-raking marathon, I have good news for you: Raking and collecting leaves every autumn is a tradition without scientific basis. Research has proven that mowing leaves into your lawn can improve its vigor, and observation shows that unraked leaves in planting beds don't smother shade-tolerant perennials.



Based upon research at several universities, the organic matter and nutrients from leaves mown into lawn areas has been proven to improve turf quality. At Michigan State, researchers set a rotary mower to cut at a height of 3 inches and then mowed an 18-inch-deep layer of leaves into test plots. That's the equivalent of 450 pounds of leaves per 1,000 square feet. The tests resulted in improved soil and healthy lawns with few remnant leaves visible the following spring.

You can achieve similar results if you set your mower to cut at the same height as in the Michigan State study, and mow at least once a week during peak leaf fall when your lawn reaches a height of 4 inches. Leaves shred most efficiently when slightly damp, so mow after a light dew. If you follow these simple guidelines, you will never rake another leaf and improve the quality of your soil.

Build planting beds with leaves

Under trees or in other shady spots where a lawn won't grow, you can create planting beds from fallen leaves as a source of soil-building organic matter. Shredded leaves applied as mulch protect tree roots from heat and cold and retain soil moisture during dry spells. Some gardeners believe that excess leaves can harbor insects or disease, but I have experienced no such problems in my garden.

After we bought our property, I created planting beds where the leaves would naturally collect on our densely shaded and sparse front lawn. It's been 15 years since I've raked a single leaf dropped by these trees. Instead, the leaves settle among the hellebores, epimediums, Japanese forest grass, hostas, and spring-flowering bulbs, where they decompose over time, just like on the forest floor.

Easy, ecological, and fiscally responsible

To treat leaves as trash is both environmentally foolish and financially ruinous. Currently, many municipalities encourage residents to rake leaves to the curb for collection, but before they are collected, heavy rains often wash the leaves into catch basins. There, they decompose and release phosphorus and nitrogen into streams and rivers that flow through the community. These excess nutrients contribute to algae blooms during the summer, which result in lower oxygen levels, making it difficult for fish and other aquatic species to survive.

Rake your leaves into the empty beds, and shred them with a lawn mower. Sprinkle the leaves with a 1-pound coffee can's worth of 5-10-5 fertilizer per 100 square feet of garden. Turn the leaves, and water thoroughly to disperse the fertilizer, which speeds decay. Turn the leaves again in spring, and plant right through the remaining clumps, which will provide nutrients as they decompose.

(Continued on page 8.)



Municipalities, both large and small, spend thousands, even millions, of dollars each year to collect, transport, and process autumn leaves, tying up resources that could be used elsewhere in our communities. If we all keep our leaves on our properties, we will improve our gardens, save money, and enhance the environment we all share.

Your own source of free fertilizer

A little effort can supply an organic source of nutrients for your plants. Here are two ways to use your leaves.

1. Pile composting for mixed borders

- Rake the leaves into loose piles or in wire bins about 4 feet square within your borders.
- Mix in a few shovelfuls of soil, and add 20 to 30 gallons of water to aid decomposition.
- Pull the piles or bins apart in the spring, and spread the decayed leaves throughout the border
- Cover the decayed leaves with a 1-inch-deep layer of fresh mulch.

2. Sheet composting for annual beds

- Rake your leaves into the empty beds, and shred them with a lawn mower.
- Sprinkle the leaves with a 1-pound coffee can's worth of 5-10-5 fertilizer per 100 square feet of garden.
- Turn the leaves, and water thoroughly to disperse the fertilizer, which speeds decay.
- Turn the leaves again in spring, and plant right through the remaining clumps, which will provide nutrients as they decompose.

