UNIVERSITY OF DELAWARE
COOPERATIVE EXTENSION

Recycling Leaves

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Introduction

What organic material is full of nutrients, essential for the natural processes of soil rejuvenation, and arrives absolutely free of cost to millions of homeowners every autumn? You guessed it— the colorful liberated leaves of deciduous trees. Recycling leaves offers a great alternative to the environmental and economic expense of removing this resource from your property.

Here, leaves raked into a garden bed provide an attractive background for the autumn colors of oakleaf hydrandgea (Hydrandgea quercifolia)

Benefits of recycling leaves

- Reduces waste going to landfills. In areas where yard waste is not permitted in landfills, recycling leaves reduces the difficulty and expense of finding an alternative disposal site.
- Encourages improvement of soil through natural processes. In one acre of temperate forest, it is estimated that over 2 tons of leaves are deposited each autumn. The resulting leaf litter hosts myriads of beneficial organisms that break down the plant material and return nutrients to the soil—beginning the cycle in which those nutrients are taken up by the trees to manufacture a new crop of leaves the following spring.
- Provides habitat for wildlife. Aside from beneficial organisms, many other creatures use the leaf litter for habitat and as a place to forage—insects, spiders, slugs, turtles, toads, and small mammals, to name a few. These, in turn provide food for other animals, such as birds.
- Reduces economic and environmental impacts of fertilizer use. With free nutrients provided by leaf litter, you won't need to use as much commercial fertilizer. Reducing fertilizer use not only saves money but also provides ecological benefits by reducing the energy consumed during production as well as decreasing the potential nutrient load in runoff stormwater.

How to recycle leaves

- Mow them and leave them where they lie. If your leaf layer is less than one inch, wait for it to dry out as much as possible and simply run over the leaves with a lawn mower. (If the leaves are somewhat damp, you may need to mow them again at a right angle to your original path.) The resulting small particles will decompose quickly without suffocating your grass, adding their organic bounty of nutrients. If your leaf layer is greater than one inch, recycle using one of the methods below.
- Shred them and use as mulch. Shredding can be accomplished in a few ways. You can use a bag attachment on your lawn mower and

simply run over them as they lay. Or, you can first rake them into a pile and then run over them several times. Empty the bag frequently in a wheelbarrow, on a cart, or onto a tarp. You can also purchase a vacuum shredder to collect and shred leaves; this will make a fine mulch but can only be used with dry leaves. A string trimmer dipped into a sturdy garbage can full of dry leaves also works as an effective shredder. Shredded leaf litter makes fantastic natural mulch that will suppress weeds, regulate soil temperature, conserve moisture, reduce soil erosion and compaction, and decompose over time to provide nutrients. For best results, add 3–4 inches of leaf litter mulch around shrubs or trees and 2–3 inches over perennial beds.

- Shred them and till them into the soil. In addition to using shredded leaves as mulch, you can spread them over fall planting beds and till them in to the soil, improving drainage as well as adding nutrients. You can also spread them over annual and vegetable beds and till them in prior to planting in the spring.
- Compost them, shredding them first for best results. Leaf litter makes fabulously rich compost. For quickest results, shred the leaves first and turn the pile often. For more information about home composting methods, consult the fact sheet "Yard Waste and Composting." https://www.udel.edu/academics/colleges/canr/cooperative-extension/fact-sheets/yard-waste-composting/