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## **Turning a New Leaf: Rethinking Leaves.**

Kathy Connolly

Many people have changed their landscape practices in recent years. For instance, we plant for pollinators, choose native plants, reduce lawn sizes, and use electric equipment instead of gas-powered.

Most of those changes can take place within the confines of our properties without attracting much negative attention. The same is not true for autumn leaves.

Our society has followed a “neat-and-tidy” rule for leaves for so long, the leaf-free lawn ethic is a formal part of some land care codes along with grass heights. And it is certainly part of many people’s expectations. The stray leaf, blowing in the wind on a dry fall day, has pushed more than a few neighbors into standoffs behind their rakes and leaf-blowers.

That’s a shame, because fear of conflict or judgment can hold us back from practices that make more earth-sense. It’s no secret that we live in a post-wild world where the ecology of lawns, gardens, and streetscapes is meaningful to the survival of regional species.

Consider, for instance, the role of fallen leaves in the life cycles of fireflies, as well as some bees, butterflies, and moths.

“Fireflies benefit from leaf litter in woods and along woody edges, as well as mulched areas of garden beds,” says Pamm Cooper, public service specialist at UConn Extension’s Home and Garden Education Center. ([www.ladybug.uconn.edu](http://www.ladybug.uconn.edu)) “Females lay eggs there.

“Moths often overwinter as pupa directly on the ground, under leaves, on tree bark, or on twigs,” she says. (Pupa refers to an intermediate stage in the life cycles of many insects.)

“Most butterflies overwinter as a chrysalis on twigs, small trees, or on tall perennial stalks, not directly in leaf litter,” she says. “Some even pupate on lawns.”

Leaf blowers, mulching mowers, and rakes can harm their odds of survival.

### **What About Bees?**

Many people are concerned about native bees and bumblebees. According to the Xerces Society for Invertebrate Conservation, the vast majority of these natives nest or overwinter in the ground. Winter survival rates improve when we leave ground surfaces undisturbed, with a even a bit of lawn duff and leaf litter. (See [xerces.org/2018/10/30/creating-fall-bee-habitat/](http://xerces.org/2018/10/30/creating-fall-bee-habitat/))

Other animals live in or rely on leaves, including chipmunks, turtles, birds, and amphibians. Each of them plays a role in landscape ecology.

Leaves are a free source of winter insulation for veggie and flower gardens, too, and for trees and shrubs year-round. As they decompose, they offer organic matter—food for soil microbes—and traces of essential nutrients.

Despite the common myth about leaves and soil acidity, “Leaves and needles do not make soil acidic,” says Cooper. “As they break down, microbial activity turns them to a relatively neutral pH, around 6 to 7.”

That pH is good, she says, for most flowers, lawns, or veggies.

“Leaves can slightly lower pH when they are mixed into soil before decay is complete,” she adds.

To use them, layer on the soil surface up to four inches deep. (Pine needles work as well.)

But which is best, shredded or whole?

The Xerces Society runs a “Leave the Leaves” campaign, in which it offers this advice: “We suggest that leaves in garden beds and lawn edges be left whole. Where space allows, consider allowing the leaf pile to break down naturally, or add the unshredded leaves gradually to your compost pile over time.”

([xerces.org/2017/10/06/leave-the-leaves/](http://xerces.org/2017/10/06/leave-the-leaves/))

### **Calculating Decay Time**

Lawns, on the other hand, need different treatment.

“Leaves can be finely shredded with a mower and left on the surface, but they should not cover the grass blades,” says UConn’s Cooper.

For lawns, she recommends a shredded leaf layer less than one-half inch.

The decay time difference between whole and shredded leaves is smaller than you might think.

“Shredded leaves break down faster than whole leaves, in about eight months,” according to Cooper. “But lower winter temperatures slow the decomposition of all organic materials.”

Shredded or not, different species have different breakdown rates.

“Oak leaves become compost in about 12 months, while maple leaves and birch leaves break down in as few as six months,” she says.

Leaves can even help suppress weeds, especially along woodland edges. Place unshredded leaves in a 12-inch layer. Whole leaves, piled high, can deprive weeds of light and, to some extent, water. They can discourage spring weed germination.

Cooper doesn’t recommend placing leaf piles in natural woodlands, though it may seem harmless.

“Forests have a natural ecological system that manages the leaf cover from the existing trees, including their breakdown. If you add leaves from a lawn or garden and create too deep a layer, this will change the natural process of the wooded area,” she says.

Bottom line: When we leave even some of our leaves on-site, we support insect species, improve soil, reduce trips to the leaf dump, and reduce pressure on public waste disposal systems. Depending on how the leaves are managed, we may even reduce the use of gas-powered equipment, including the dreaded high-decibel leaf-blower.

Like the journey of a thousand miles, perhaps now is the time to consider a journey to a new relationship with the gift of leaves. Begin with the first leaf.

Kathy Connolly writes and speaks on landscape design, land care, and horticulture. Reach her through her website, [www.SpeakingofLandscapes.com](http://www.SpeakingofLandscapes.com).