

## Leave the leaves! Why raking leaves can be damaging to the environment...and your lawn

The transition to winter means lots of leaves and debris from trees cluttering your lawn. While some enjoy the colourful variety of leaves on their lawn, others view it as messy and degrading to the aesthetic of their lawn. Leaf litter is composed of twigs, fallen leaves and pieces of bark shed from nearby shrubs and trees. Despite the unsightly look of leaf litter to some, leaves provide important ecological services that help to increase biodiversity...and improve lawns while removing unwanted weeds too.

In terms of biodiversity, for example, leaf layers provide habitat and food for small critters like chipmunks, salamanders, birds and thousands of insects. Insects feed on leaf litter and help to speed up decomposition processes by converting litter into beneficial minerals that can be absorbed by plants. This means, that in addition to habitat, leaves provide hold nutrients and sediments within them that act as fertilizers to your lawn and garden, keeping soils healthy and moist throughout the winter season. In this way, leaf litter can act as a natural mulch to hold nutrients and moisture in your garden over the cold months, making it more suitable for new growth in the spring and helping both lawn and garden stay productive all summer! The nutrients and mulching effects are also what keep unwanted weeds such as crab grass and dandelions at bay. Finally, keeping leaves on your lawn and garden beds, keeps them out of local dumps and landfills, where the collective volume is too large to properly decompose and results in the unnecessary and speedy filling of these limited areas.

Ecologists are revolutionizing how we view leaf litter by publicizing the ecological benefits that it provides. For example, *Life in the Leaf Litter* by Elizabeth A. Johnson and Kefyn M. Catley of the American Museum of Natural History provides a glimpse into life of animals and insects benefiting from fallen leaves. The [free booklet](#) provides examples of different bacteria, fungi, mammals, birds and insects that utilize leaf litter for food and habitat. According to Richard H. Yahner in *Eastern Deciduous Forest: Ecology and Wildlife Conservation*, the trees in a hectare (more than 2 acres) of temperate woodland can produce between 1,500 and 5,000 kilograms (more than 5 tons!) of leaves, twigs, insect frass (excrement) and other debris every year. Without the help of insects, and other decomposers the accumulation of leaves and debris on forest floors would be overwhelmingly large and it would be difficult for soils to get the nutrients they need to encourage growth. Insects also provide food for many other animals, such as birds, frogs, rodents, and then other birds and fish and mammals that depend on them.

How to manage leaves if you don't like the sludge effect: Here are a few tips & tricks:



- Mulch the leaves using an open ended lawn mower, which removes the sludge effect and speeds the decomposition
- Rake leaves into specific garden beds or areas where your lawn does not grow well- to help these areas thrive
- Rake trails through the leaves to direct traffic of people and utility vehicles rather than the entire area
- If you must remove the leaf litter from your lawn, avoid bagging and discarding yard waste, or sending it to the landfill. Instead, recognize the important ecological features it provides by utilizing it for compost or raking excess leaves to an unseen area of the yard

What can you do to increase biodiversity within your property? Here are a few tips & tricks:

- One of the most obvious and helpful ways to increase biodiversity is to leave the leaves! Leave the organic materials on your lawn undisturbed and let other animals do the work
- Plant native species in your own garden to encourage native leaf litter invertebrates
- Tell others what you have learned and spread the word about leaving the leaves
- Minimize or eliminate the use of pesticides and chemicals on your lawn (as it can negatively impact species around you)

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