TREE NEWS
YOU CAN USE
OCTOBER 2026

LEAVE THOSE LEAVES: LEAF LITTER AS HABITAT AND MULCH

Deciduous trees drop their leaves each fall to conserve energy, and every fallen leaf returns organic matter and nutrients to the soil. Yet many homeowners rake, bag, and discard this free resource — even though most leaves could stay right where they fell, feeding the soil and sheltering overwintering insects.



Leaves as habitat. Most butterflies and moths spend the winter as eggs, caterpillars, or chrysalises hidden in leaf litter — woolly bears, fritillaries, luna moths, and swallowtails among them. Fireflies spend most of their lives as larvae under fallen leaves, and beneficial predators like syrphid fly larvae and lady beetles overwinter there too, ready to eat garden pests in spring. Birds like robins and towhees forage through the leaf layer for food.

Leaves as mulch. In planting beds and under trees, leaves suppress weeds and hold soil moisture as well as wood mulch — and cost nothing. On lawns, a thick mat of whole leaves can smother grass, but mowed-in maple and oak leaves caused no harm to established grass, improved spring greening, and reduced dandelions by up to 84% (Kowalewski et al., 2009). The tradeoff: mowing can destroy sheltering insects, so keep whole leaves in beds where possible and mow only what lands on turf.

Where leaves don't belong. Keep leaves out of streets and storm drains — a U.S. Geological Survey study found that removing street leaves before rains cut stormwater phosphorus by 84% (Selbig, 2016). Bag and remove leaves only from plants with heavy fungal infections like leaf spot or scab.

What you can do in your yard:

- Rake whole leaves into beds and under trees, a few inches deep, keeping them off trunks and stems.
- Mow leaves on the lawn until grass shows through.
- Keep leaves out of streets and drains.
- Bag leaves from diseased plants.

References

Kowalewski, A. R., et al. (2009). Mulched maple and oak leaves associated with a reduction in common dandelion populations in established Kentucky bluegrass. *HortTechnology*, 19(2), 297–304.

Selbig, W. R. (2016). Evaluation of leaf removal as a means to reduce nutrient concentrations and loads in urban stormwater. *Science of the Total Environment*, 571, 124–133.

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