



Leaves are truly one of the urban gardener's greatest resources. According to *The Rodale Book of Composting*: "...the leaves of most trees contain twice the mineral content of manure." This is because the extensive root system of trees allows them to draw minerals from deep in the soil. They are also high in fibre which "aids in improving the aeration and crumb structure of most soils." Leaves, along with other yard and garden waste, are banned from going into the Hartland Landfill. They cannot be put out with the garbage and in many municipalities leaf burning is prohibited. However, leaves have many uses for the home gardener and when used properly can greatly improve a garden's soil. Leaves can be used for composting, mulch, soil building, worm bedding, and chicken coop bedding. In most cities leaves are plentiful in the autumn and can easily be collected from yards, parks, and streets.

Collection and storage of urban leaves

Autumn is the best time for urban gardeners to stock up on valuable leaves. Leaves can be easily collected and stored, to ensure gardeners have a supply that will last them the full year.

Leaves are best collected from yards and parks, where they are less likely to contain contaminants such as litter, oils, or other vehicle fluids. Leaves can also be collected from streets, but these leaves should be composted to break down potential liquid contaminants. When collecting leaves, you can use a wheelbarrow, a tarp, or even a truck if you would like a larger volume.



Hoop bin for leaf storage.

When storing the leaves, try to compact them so they take up less space. Wet leaves can be difficult to work with; spreading them out and fluffing them up to allow them to dry makes them more user friendly. Leaves can be stored in strong plastic garbage bags. Larger amounts of leaves can be stored in a hoop bin (see picture).

This simple hoop bin is made with ½" (1.2cm) hardware cloth held together by 2 1x4 pieces of cedar and four wing nuts. It has a simple plywood lid. A four foot (1.2m) diameter bin will hold almost one cubic yard (0.76 cubic meters) of leaves. Most materials can be purchased at your local hardware store. See Fact Sheet #7 for how to build your own hoop bin.



What to do with leaves

Composting

Composting is a great way of utilizing the nutrients and qualities of leaves. The composting process neutralizes the acidic nature of leaves. Some common leaves found here in the CRD are: maple, alder, oak, birch, poplar, and those from fruit trees.



Composting with leaves is easy and quick. However, they cannot be composted on their own as they do not have quite enough nitrogen. Therefore, they should be mixed with a high nitrogen material like fresh manure, grass clippings, or food scraps. Shredding the leaves will accelerate the process. This can be done with a leaf shredder or a common rotary lawnmower.

To compost leaves, use 1 to 3 parts (by volume) of high nitrogen materials for every five parts of leaves. If you are hot composting the leaves, in order to break them down quicker, make sure your compost pile is at least one cubic metre (3 cubic feet). If you are composting in a backyard bin, be sure to mix the leaves thoroughly with food scraps and other materials in the bin.

See Fact Sheet #1 (Back Yard Composting) and #4 (Hot Composting) for more detailed information on how to effectively compost your leaves and other materials.

Mulching

As a mulch, leaves help keep the soil cool and moist in summer and protected from the rain in winter. As the leaves break down they also add nutrients to the soil and provide a perfect environment for earthworms to thrive.

However, most leaves are slightly acidic so keep this in mind when using them. Your soil pH may need to be raised by applying dolomite lime. For plants that prefer acidic soil, pine needles and oak leaves work well as a mulch.

Because leaves are so small, they are easy to work with and can easily be shaped to fit around the trunks of trees and stems of perennial plants. Remember to keep the leaves a few inches away from trunks and stems as continued contact with leaves could cause stems and trunks to rot. See Fact Sheet #7 for more information on mulching.

Leaf Mold

For the busy gardener, leaf mold can be a very handy resource. By simply keeping leaves in a plastic bag, a covered pile, or a hoop bin, they will slowly break down over the course of a year or two, resulting in leaf mold.

One of leaf mold's best qualities is its ability to hold water. According to *The Rodale Book of Composting*: "Leaf mold's ability to retain moisture is amazing... leaf mold can retain 300 to 500 percent of its weight (in water)." Compare that to "rich topsoil, [which holds] 60 percent." Thus, applications of leaf mold will significantly help reduce the likelihood of plant stress in drought situations.

Leaf mold is also a great soil amendment, decomposing slowly to release nutrients to the soil over time. You can use leaf mold wherever you would use compost or use as a fine mulch.

Other Uses for Leaves

For gardeners who do worm composting, leaves can be mixed 50/50 with finely shredded newspaper to make a

perfect bedding for the worms. See Fact Sheet #2 for more information on worm composting.

Leaves can also be used as bedding for urban chickens. They can be used alone or mixed with hay, straw, or sawdust. Once the bedding is well-soiled with chicken manure, it can be used directly in the garden or added to a compost pile to further decompose.

Common leaves and their properties

Maple: Maple leaves are high in calcium and potassium and their wide leaf is a great mulch that breaks down quickly.

Oak: Oak leaves are abundant in the CRD. Though many people believe they should not be used, oak leaves are beneficial for the garden. Very acidic in nature, they are good for acid loving plants like strawberries and native plants. As a mulch they are long-lasting and thus require less work to maintain.

Pine Needles: Pine needles and other conifer leaves and needles are very acidic. With the exception of cedar leaves (which inhibit growth) conifer leaves can be used to mulch acid-loving plants such as strawberries, blueberries, or rhododendrons.

Cherry: Though not very high in nutrients, cherry leaves are abundant in some areas of the CRD. They make long lasting, effective mulch.

More Leaf Advice...

Though most leaves are fine for use in the home garden, there are a few that should be avoided. Through a unique process called allelopathy, these plants, through their roots and their leaves, suppress the growth of other plants.

Cedar leaves are known to prevent the germination and growth of plants around them. And although much of this inability of plants to grow under cedar comes from the lack of light available under these

massive trees, cedar leaves should not be used as mulch.

Black Walnut is one of the best known allelopathic plants. The tree's roots produce a substance called juglone, which is also found in the leaves. Although juglone levels decrease significantly when leaves decompose, they are best left out of the garden and the compost.

Some other tree leaves to avoid include pecan, eucalyptus, arbutus, and holly.

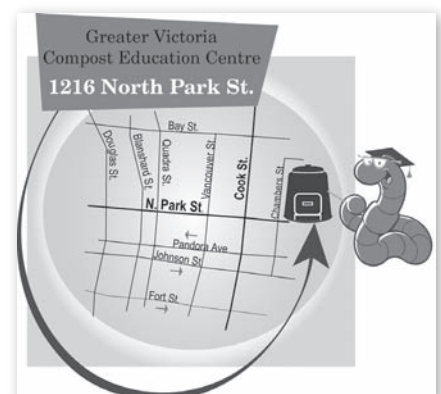


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