Setting up a leaf mould composting system

Introduction:

Making leaf mould is a simple process, just requiring space and a little bit of management.

After 6 months to 1 year, you will have a valuable mulch.

After 2 years, you will have a fully composted product that can be used as a growing medium for plants, as part of a seed or potting mix, or for propagating seeds in a tree nursery.

The volume of the leaves decreases to about ¼ of its original bulk during this time.

All types of deciduous leaves are suitable, as are pine needles (though these are more acidic and will give an acidic leaf mould that will suit certain plants). Small leaves break down quicker, and they do not clump together as much as larger leaves. Glossy leaves such as laurel are very slow to compost, and can be put in a separate pile.

Planning and Preparing:

Space available is an important factor. You can make leaf mould in a square metre or less, but if you have more space then you can process larger quantities and have more room for the physical work of turning the leaves.

An area of 10-15 m^2 will allow you to process several tonnes of leaves.

You may want to plan enough capacity for 2 years of leaves to allow for this year's newly fallen leaves and the previous year's half-finished leaf mould.

Remove as many as possible of perennial roots, such as briar, thistle, bracken etc.

You can line the ground with silage plastic if you wish. This helps to suppress weeds from coming up through the leaf mould. However it will reduce the airflow and drainage at the bottom of the pile.

The holding bin or bay can be made very simply. Wire mesh and some fence posts are the simple option, or you can get more adventurous and creative…

For turning the leaf mould, it helps to have good access to all parts of the pile.

You can use signage to explain what you're doing and why, and to illustrate the various tiny creatures that live in the leaf mould habitat that you have created.

Getting the leaves:

If possible, let leaves remain where they fall in parks, gardens etc. They provide vital winter habitat for many species of flying insects, decomposing organisms, hedgehogs and much more, as well as foraging for hungry insect-eating birds during the colder months. Also, as they decompose, they improve the soil and provide fertiliser for the plants.

Council staff may be cleaning up fallen leaves from roads and footpaths and might be happy to deliver them to you. If these are from a busy and polluted area, they should be treated with care.

A good strategy may be to use local news and social media to advertise that, if people have bagged leaves that they want to dispose of, you will collect them. It is worthwhile to specify no litter, waste, weeds etc. to ensure that the yield will be as clean as possible.

Local gardening contractors will also be cleaning up gardens during the autumn.

If you are expecting large quantities, it may be worthwhile getting some builder's tonne bags such as those used to hold sand and stone. Note that wet leaves can be very heavy, so smaller builder's bags might be preferable to larger ones.

Managing the leaves

Have your bays set up in advance.

Empty the bags of leaves into the available space. If possible, use a fork to shake up the leaves as they will have become compressed into the bags. Try to spread the pile out as much as possible, to maximise access to air and moisture. This also gives you a chance to pick out sticks and rubbish at the start.

You can shred the leaves using a shredder or lawnmower to speed up the process or if your space is limited. This is not necessary but it will reduce the composting time to one year instead of two.

Do not cover the leaves, especially at the beginning. It is important to have them exposed to the rain until they break down and become more absorbent.

It will benefit the process if the pile is turned once or twice a year, to break up the clumps of leaves that can form and to allow air and moisture to get to every part of the pile. A wide fork, like a beet or potato fork with 6-10 tines, will allow you to do the work much quicker than you would with a 4-tine garden fork.

If you don't turn the leaves, the process will still work but you may have to wait longer for finished leaf mould and you may need to sieve out the unfinished clumps.

The process can be speeded up by adding nitrogen in the form of grass cuttings, nettle tea, coffee grounds etc. However this also changes the chemistry of the compost – it will not be bad but it will be different. It will contain more nutrients and a different microbial population compared to pure leaf mould.

The summer after setting up your leaf mould system, you can cover the pile with windbreak fabric. This helps to keep the top and sides of the pile from drying out, and will prevent windblown weed seeds from taking root.

Nothing added but time…

When the leaf mould is ready, you will have a very valuable asset on your hands.

It retains moisture well, and can be mixed with soil, peat-free compost, sand etc. to make various seed and potting mixes.

It is high in beneficial microorganisms that will improve soil and plant health.

You can sieve the leaf mould if you are using it for finer applications like seeds and potting.

Leaf mould is low in macro nutrients such as nitrogen, so it is suitable for seed germination. It should contain very few weed seeds.

It is also a perfect medium in which to grow trees, which would naturally germinate in the leaf litter of the forest floor.

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