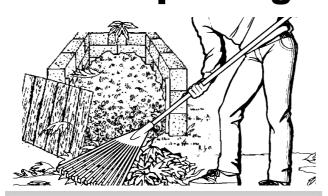
# Project Ideas & Information Composting



Before purchasing tools, timber and materials, read every step thoroughly then talk to one of our experts

## What Is Composting?

Composting is the common name for the decomposition of organic matter such as leaves, grass, and food scraps, by micro organisms, under aerobic conditions. This decomposition occurs naturally in all but the most hostile environments, such as within landfills or in extremely arid deserts, and the result of this decomposition process is compost, a crumbly, earthysmelling, soil-like material that is an excellent source of organic matter for garden soils.

Although you can buy commercially prepared compost, making your own is personally rewarding and by joining the thousands of individuals across the country who compost in their own backyards you can help greatly reduce the amount of waste that ends up in landfills or incinerators.



# **Choosing A Location**

Before starting, determine an appropriate location for the compost pile. Choose an easily accessible spot on a grass or soil base. Although gardeners in hot, dry climates often favour a shaded location to prevent the pile from drying out during summer months, a pile can be built in either sun or shade with equal success.

Avoid placing your compost pile directly on a property line or next to a neighbour's patio or window

Composting can begin any time of the year, but many people start in the Autumn when leaves are abundant

## **Getting Started**

Composting can be as simple or as involved as you would like and depends on how much yard waste you have, how fast you want results, and the effort you are willing to invest.

A simple compost heap at the bottom of the garden can work well but most gardeners opt for a purpose built structure. This can be as simply as a moveable bin formed by wire mesh or you can build your own backyard compost bin from timber or concrete blocks. At the base level, all you need is a box shape that provides lots of air circulation and is lined with 12mm wire mesh to prevent rats, mice, possums and the neighbour's dog from getting in.

Alternatively you can purchase one of the many commercially available composters, these include turning units, hoops, cones, and stacking bins.

#### **Hot Or Cold?**

### **Cold Composting**

Cold composting is slow but it's easy. It is ideal if you are short on time, have little yard waste, and are not in a hurry to use the compost. With cold or slow composting, you can just pile grass clippings, dry leaves or other vegetable matter on the ground or in a bin and leave it until it decomposes. You need not turn the cold compost pile at all, but the decomposition process will take longer. A cold compost pile will take about six months to a year or more to be ready for use.

Shredding or chopping up material speeds up the process as does covering the pile with a thin layer of soil because the composting work will be done by the thousands of microorganisms that live naturally in the soil.



Cold Compost Pile

As the temperatures reached with cold composting are quiet low compared to 'hot composting' they are generally not high enough to kill weed seeds or disease-causing organisms, so these should be excluded from the mix

#### **Hot Composting**

Hot composting will yield the fastest rate of composting and best control of weed seed and plant pathogens. Hot composting is also the most labour intensive method.

While a multitude of organisms, fungus and bacteria are involved in the overall composting process, a hot compost pile needs the correct mix of the following four basic ingredients: nitrogen, carbon, water and air.

**Nitrogen:** Green materials such as grass clippings and landscape trimmings are ideal sources of nitrogen for composting. Vegetable and fruit trimmings and peels can also provide nitrogen.

**Carbon :** Brown (dry) yard and garden material such as dry leaves, twigs, or hay can provide the carbon balance for a compost pile.

**Water:** Your compost pile should be as moist as a wrung-out sponge. A moisture content of 40 to 60 percent is preferable. A properly constructed compost pile will drain excess water and not become soggy.

**Air**: Lack of oxygen will slow down the composting process and cause odours. The bacteria and fungus that are in your compost pile need oxygen to live and work.

Hot piles do best when high-carbon material (brown) and high-nitrogen material (green) are mixed in a 1 to 1 ratio. For efficient heating your compost pile should measure at least 1 metre x 1 metre x 1 metre.

If you don't have this amount of material at one time, simply stockpile your materials until a sufficient quantity is available to start.

The finer the pieces, the faster the compost process, so chop or shred as much of the material as possible. Dry materials such as leaves and

sticks can be run through a shredder or run the mower over them a few times.

To build your pile, either use alternating 150mm layers of well-watered high-carbon and high-nitrogen material mixing the two layers together.

Alternate and mix layers of each type of material, adding water as needed, until the pile is at least one metre high.



If you are low on high-nitrogen material, you can add a small amount of commercial fertilizer containing nitrogen. Apply at a rate 1/2 cup of fertilizer for each 300mm layer of material.

Soil contains commonly found decomposing organisms, so adding a few shovels full now and again will also help get the pile off to a good start

Adding the material in layers simply helps you judge the right proportions of "brown" and "green." But everything should then be thoroughly combined to compost efficiently.

Cover the pile to protect it from heavy rain, and wait.

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The pile will heat up within hours and then begin to cool. Start turning when the pile's internal temperature peaks

at about 50 to 65 degrees, this can occur anytime between 24 hours and one week later.

If you want precise temperature readings, you can track this with a compost

thermometer, or you can mount a meat thermometer at the end of a stick or simply reach into the pile to determine if it is uncomfortably hot to the touch.

Once the compost is turned, the temperature should peak again in about another week. As soon as it begins to cool, turn the pile again. Throughout the process you should ensure that the pile does not dry out, it should be as moist as a damp sponge

If everything is functioning well your compost will be ready in another couple of weeks. The best indicator of the completed process is when the temperature won't rise above 43 degrees no matter how often you turn it.

Finished compost will smell sweet and be cool and crumbly to the touch.

# What Can I Compost?

The general rule of thumb is that, if it's been alive  $\dots$  you can compost it.

Because speedy composting relies heavily on an equal mix of high-carbon and high-nitrogen material pick from the lists below to ensure that you maintain the right ratio.

#### High Nitrogen "Green" Ingredients

Grass clippings, weeds, fruit & vegetables, coffee grounds, tea bags, egg shells, manure (cow, horse, chicken, rabbit), seaweed, alfalfa hay/meal, blood meal.

#### **High Carbon "Brown" Ingredients**

Brown leaves, straw, paper towels, napkins, bags, plates, coffee filters, tissue and newspaper, cornstalks, wood chips, saw dust, pine needles,

Vacuum dust and hair are also suitable for composting.

## What Can't I Compost

It is very important to put clean things into your compost, and avoid things that could pollute the ground of your garden. You should avoid things that could attract flies or animals.

Use the list below as a guide.

Dairy products, fats, oils (including peanut butter and mayonnaise), fish scraps, bones, meat scraps, grease, pet manure, cat litter, dead animals, diseased plant material, or noxious weeds, coal and coke ash, disposable nappies, used tissues, glossy magazines.

Consider avoiding pesticide-treated plants, including grass clippings and pressure-treated wood scraps and sawdust,

## **Common Problems**

The beauty of composting is that when things go wrong, nothing happens ... the whole process just stops.

If you notice that nothing is happening, you may need to add more nitrogen, water, or air. If things are too hot, you probably have too much nitrogen, just add some more carbon materials to reduce the heating.

An ammonia smell may indicate too much nitrogen, adding brown leaves will help.

Other bad smells indicate that the pile is too wet, has no air, or contains food or pet waste. Turning the pile will improve air circulation and help it dry out. Remove or bury food scraps.

## Is It Ready Yet?



Compost is ready to be used when it is dark in colour, crumbly and has an "earthy" smell.

You can sift the compost to eliminate material which has not yet finished composting and return this back to the pile to complete its transformation into humus

# **Using Compost**

You can use compost as soon as it becomes ready. It is best to mix compost with soil for gardening. Pure compost does not drain well, and may encourage excessive growth and pest or disease problems. Clean, sandy fill soil (not heavy clay) and compost mixed in roughly equal amounts provide a good growing medium.

Use compost as a mulch around tree and shrubs or in the preparation for new lawns or garden beds.

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