

Home Composting



Introduction to Composting

Composting is the natural process by which animal and plant matter is broken down into a rich dark soil like material under controlled conditions. It is an easy way to return the nutrients of kitchen and garden waste to the soil and can be used as a soil conditioner, fertiliser or surface mulch. Composting is an inexpensive, hygienic and a natural way of taking care of waste.

There are many reasons why we should compost:

- **Reduce Waste** – Kitchen and garden waste (organic) amounts to one third of household waste. Instead of sending this waste to a landfill, why not make use of it in your garden.
- **Save Money** – No need to buy bags of compost if you make your own. No extra ingredients needed! Bin charges will also decrease as composting reduces the amount of waste you are dumping by up to one third!
- **Good for the Garden** – Home composting improves soil fertility, plant health, soil aeration, drainage on heavy soils and the water holding capacity of lighter soils. It adds trace elements to the soil and can increase the pH of the soil.

How does it work?

The composting process works when waste from the kitchen and garden is piled together, this creates ideal conditions for a host of micro-organisms to break down waste. Decomposition causes the compost pile to heat up helping the material to break down. Once it cools down, it attracts worms and insects that transform the waste into rich compost.



Getting Started

- **Choose a site** – place the bin close to the house with easy access. This makes it quick and easy to add waste to the heap regularly. It should be placed in an area of bare soil or grass. This allows micro-organisms and worms to enter the bin and excess water to drain away. Ensure the bin receives enough (but not too much) sun to maximise the breakdown of the material.
- **Choose a compost container** – When choosing a container, consider how much waste you are producing. This may vary depending on the size of your garden and the size of your household. Dún Laoghaire-Rathdown County Council supply a limited range of bins. Alternatively you can make your own compost bin.
- **Layer your compost** – When starting off layer the bottom of your compost heap with twigs and coarse material. This allows air in the base. Alternate layers of grass and kitchen organic waste should then be put on top. Small amounts of paper can be added to provide carbon and also soil can be added from time to time to provide micro-organisms. Adding manure occasionally will provide nitrogen needed by the organisms.



How to use your Compost

When your compost is ready, it will be dark brown/black in colour. You may be required to dry it out by laying it onto plastic sheets to air and then packing it into plastic bags punctured with holes until it has a crumbly texture. Don't worry if there are small pieces of twigs or eggshells that have not fully broken down, the garden itself and the worms will look after this. Compost is best used in the spring or summer, before planting.

Once the compost is ready there are a number of ways it may be used:

- Flower/vegetable beds – use a layer of about 8 cm of compost and dig in to mix with the soil.
- To improve soil – use an 8-10 cm layer and mix in to help improve consistency and drainage.
- Houseplants – use a mixture of compost, soil and sand in equal measures.
- Future Use – You can store compost in bags to use in the future.



What can be Composted?

More than one third of your household rubbish can be composted as well as garden waste such as leaves and grass cuttings. This waste can be divided into Green and Brown categories depending on its chemical make-up. Green waste contains a high percentage of Nitrogen while Brown waste contains a high percentage of Carbon. Equal amounts of each type of waste should be used.

YES	COMMENTS
Vegetable peelings	Excellent when mixed with fruit peelings and high in nitrogen
Tealeaves	
Grass cuttings	High in nitrogen and a good activator
Weeds	As the compost temperature will rise to about 66°C, most weed seeds will be killed
Seaweed	If from saltwater, hose down or leave out in rain before adding to compost
Animal manure	Use manure from vegetarian pets only and mix with straw
Mushroom Compost	
Cut/dead flowers	

YES	COMMENTS
Pet hair & human hair	
Coffee grounds	
Paper, Cardboard & Egg boxes	Should be shredded
Fruit peelings	
Crushed eggshells	
Leaves and prunings	Leaves contain lignin so decompose slowly while prunings should be finely chopped or shredded
Straw and Hay	Add when old & chopped, soak well if it is dry
Vacuum dust	Excellent if from woollen carpets. Do not compost material vacuumed from synthetic carpets

NO	COMMENTS
Disposable nappies	Disease carrying pathogens may not be destroyed
Excrement	Human, cat, dog excrement cannot be composted for the same reason as disposable nappies
Shiny card/bright coloured paper	
Hard objects	Such as stone, metal, glass, plastic
Chemicals	Should not be added, or any household or garden chemicals
Meat	Either cooked or raw, this will attract animals
Fish scraps	May attract vermin
Pernicious weeds	E.g. couch grass, creeping buttercups & bindweed
Dairy products	Do not compost effectively, may attract vermin
Textiles	

Frequently Asked Questions

Q: Should I purchase a compost activator?

A: It is not necessary to purchase an activator. If you want to encourage the composting process simply add some old compost or garden soil from time to time.

Q: Are slugs good or bad for compost bins?

A: Slugs help the breakdown of material but should be picked out manually before you spread the compost on your garden. Do not use pesticides in the bin.

Q: Will the compost have to be turned?

A: It is not necessary to do this but if the contents are turned on a regular basis then decomposition is faster.

Q: I think I have a rodent getting into my bin. What can I do?

A: You may occasionally find animals near your bin. To prevent any rats or mice getting into your bin place the composter on a layer of bird cage wire and turn up the edges or use a layer of builder's mesh at the bottom. If you live near rivers, streams or old hedgerows, there may be a larger population of rodents. Mice in a compost bin are not harmful, but be sure to wash your hands after using the composter.

Q: My bin is damp, sweet smelling and quite cool. What's causing this?

A: You may need to add more nitrogen to the bin. By adding lots of green material your problem will be solved. Or if the material is breaking down well, you may have a vermicomposter or worm rich bin.

Q: The material in the composter looks very dry and seems to be doing nothing.

A: You need to use the composter more often. Make sure you have a good mix of fresh vegetables, fruit skins, tea bags and damp paper in your composter. This will help increase the moisture content of the compost. If you add too much dried grass or prunings and not enough fresh materials it may dry out. Water the surface; add a layer of grass and a layer of fresh material and leave for a week. Mix the top half of the container once a week for a couple of weeks.

Q: Why is there a bad smell coming from my compost?

A: If your compost is too wet, too compacted or receiving a little amount of air then it may give off an offensive smell. To solve this aerate your compost often by loosening it with a fork or emptying the bin and turning the compost while adding extra layers of brown material. Do not add too much green material as this can lead to a rotten odour.

Q: There are a lot of weed seedlings when I spread out the compost. Why?

A: The bin needs to be hot enough to kill weed seeds. You can make the bin hotter by shredding the ingredients finely or making sure you don't add seeds in the first place. Also, instead of spreading the compost you should dig it into the garden beds, reducing the amount of weeds growing. By leaving the compost in the open air for a couple of weeks, the seeds will spout allowing you to pick them out before using the compost.

Q: How long will the process take?

A: This all depends on weather conditions and where your bin is placed. It may take from 2 months to a year. Once the contents of the bin are no longer recognisable and looks like damp soil, the compost is ready to use.

Q: Why does my composting seem to stop altogether in the winter?

A: You may have a very cold garden or the area around the composter may have a cold microclimate. Place a layer of used bubble wrap or straw around it to insulate it.

Q: Why is my bin hot and strong smelling?

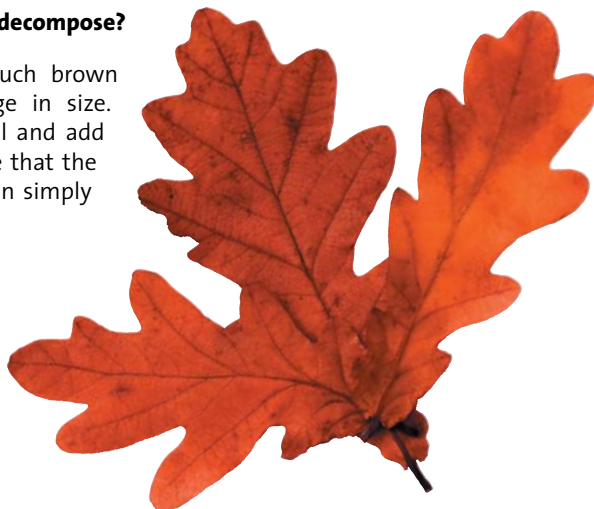
A: A very hot bin may start to give off ammonia fumes. You can reduce the heat by not shredding everything finely and leaving larger chunks of woody material. Leaving the lid open overnight or in the light rain will cool the bin down. Try turning the compost in the bin.

Q: How do I prevent flies from getting into my bin?

A: To avoid flies from breeding under your bin lid, simply leave the lid open for a few days and add a layer of grass or torn paper to the top.

Q: Why is my compost taking a long time to decompose?

A: This may be caused by adding too much brown material or material which is too large in size. To solve this problem, shred the material and add more green waste. Another cause may be that the compost is too dry, if this is the case then simply add some water.



Alternatives to a Compost Bin

There are several alternatives to the conventional compost heap or bin:

- **Mulching:** This is a simple process of placing organic matter such as grass clippings, leaves and pruning material in thin layers on the surface of the ground and leaving it to decompose. Humus is gradually created over time and the nutrients go back into the soil.
- **Grass Cycling:** By leaving fine grass cuttings in the lawn they decompose naturally and feed the nutrients back into the soil helping to aerate the ground through the action of worms and preventing it from drying out in the warm and windy weather.
- **Trenching Garden Waste:** Dig a trench up to 60cm deep and 60cm wide. Fill in with garden waste and lightly cover with soil. After a few months, the trench will be ideal for planting in.
- **Community Composting:** If you feel you don't have enough material to compost on your own get together with your neighbours and compost on a communal green space.
- **Leaf Mould:** If you have lots of trees and leaves, stack the leaves in a pile in the corner of the garden and cover with an old piece of carpet or place them in black plastic sacks. Make sure they are damp and leave them for about a year to decompose resulting in a soil nourisher.



Vermicomposting – An Introduction to Worm Composting

Vermicomposting uses worms to break down organic waste such as fruit and vegetable scraps in a container called a wormery. This is a cheap, simple way to cut down on organic waste. The worms produce a wonderful garden fertiliser, which is richer than ordinary compost. Wormeries also produce a rich liquid fertiliser, which will be of great benefit to garden soil. Wormeries are totally enclosed; therefore they are suitable for both indoor and outdoor use. They consist of a number of layers or containers placed on top of each other. The worms eat the food at the top and the resulting compost, which is known as worm castings, is at the bottom. As the conditions in the wormery are too rich, ordinary earthworms cannot be used. It is necessary to purchase compost worms as they eat much more food than ordinary worms and are best suited to the rich, moist conditions of a wormery. Tiger worms are the most common compost worms available from Irish suppliers.

How to Build Your Own Wormery

- Take a plastic or wooden container about 30 cm high x 40 cm deep x 60 cm wide.
- Drill holes in the bottom and sides to allow aeration and provide for drainage.
- Place a plastic drip tray under the worm bin.
- Fill the container three-quarters full with suitable bedding. This can include shredded paper or other biodegradable bedding (food scraps, straw and leaves).
- Add 1 lb of vermicomposting worms.
- Keep the lid on the wormery.
- Once you have built your wormery, feed the worms about once a week.
- Add some water every few days or when necessary to prevent the compost from drying out. It is important to keep the wormery moist to prevent the worms from dying. However, being too wet will have the same results as being too dry.



Using Your Wormery

Worms eat about half of their own body weight a day. Do not over feed the worms as you may end up with rotting food. Give them the same amount of food all the time. Occasionally Pot worms, which are white in colour, may appear in your wormery. Don't worry these worms are harmless. They occur when there is a lot of acidic food in the wormery. You can reduce the acidity by adding eggshells. You can observe your wormery and find out what your worms like or dislike.

The worms will stop breeding if there are too many of them in the wormery and they do not breed in organic waste so provide them with a bedding mix by using well rotted compost placed over a layer of newspaper and cardboard.

What Materials can be put in the Wormery

YES

- | | |
|---|---|
| ✓ Kitchen & household scraps | Old fruit and vegetables, cut flowers, tea leaves, coffee grounds, crushed eggshells |
| ✓ Paper & Cardboard | Small amounts, torn up. Mix well with other items |
| ✓ Wood Ash | Provides potassium and lime |
| ✓ Grass cuttings | High in nitrogen and a good activator, but be careful not to overwhelm the compost bin as it can turn slimy. Mix well with other material |
| ✓ Hair | Pet hair or human hair, moistened |
| ✓ Leaves | Add a little at a time |

NO

- | | |
|--|--|
| ✗ Dog & Cat droppings | This type of animal manure may carry parasites |
| ✗ Man-Made fibres | This will not rot |
| ✗ Material infected with diseases | Composting may not kill these diseases |
| ✗ Materials sprayed with weed killers | The residues may remain in the heap |
| ✗ Meat bones & scraps of meat | May attract rats and disease-carrying insects |

When will the Compost be ready?

The compost will be ready to be harvested in approximately three months. It is necessary at this stage to remove the first 6 inches or so. This layer contains most of the worms and can be stored temporarily so the finished compost underneath can be removed. When the compost is removed, transfer the fresh organic material into the wormery and start again.

How to use the Compost from your Wormery

The resulting compost from your wormery is known as worm castings. These castings are found at the bottom of the wormery and can be used in many ways.

- It can be used to enrich the soil in the garden.
- The liquid produced can be used as a plant feed but dilute it with water first.
- It can be used for potting new plants when it is mixed with soil or commercial potting compost.
- You can put your compost in a bag until it matures further.



Where to get Worms and Wormeries

Irish Earthworm Company

Mr. Michael Lynch
Farnivarne
Bandon
Co. Cork
Phone: 023 52343
Email: iew@eircom.net
www.compass.ie/gap/3iearthworm_co.html

Wrigglers Worm Farm

Ardvoley
Leitrim
Phone: 071 64880

Wiggly Wigglers

C/O Waste Solutions
Cork
Phone: 021 382 9000
www.wigglywigglers.co.uk

Grow Green Solutions

Killiskey Cross
Ashford
Co. Wicklow
Phone: 01 458 2261
www.growgreensolutions.com/index.htm

Element Green

Can-O-Worms (worm bin complete with worms, bedding, container)
Phone: 021 432 6153
Email: info@elementgreen.com
www.elementgreen.com

Worms Express

"The Griffins"
Ballyhaunis
Co. Mayo
Phone: 0902 329 47

Alternatively, check locally for local suppliers

Websites on Worms

www.ipcc.ie

Irish Peatland Conversation Council Website. Excellent section on worm composting and tells you all you need to know about gardening without peat.

www.compostireland.ie

Composting Association of Ireland with good composting instructions and useful links to other sites.

www.gardenorganic.org.uk

Organic gardening website of the Henry Doubleday organisation.

www.wigglywigglers.co.uk

Suppliers of mixed species worms and bedding to start your own worm bin.

Green Waste

Ballyogan Recycling Park accepts green waste from a household e.g. grass, hedge cuttings, leaves.

Green waste is a chargeable item.

Ballyogan Recycling Park, Ballyogan Road, Dublin 18

Opening hours: Monday to Friday: 8.30am to 5.30pm
Saturday: 9.30am to 5.30pm
Sunday: 10.30am to 5.30pm

Telephone: 01 291 3600

For further information, please contact

Infrastructure and Climate Change Department,
County Hall,
Marine Road,
Dún Laoghaire,
Co. Dublin.

Phone: (01) 205 4700

Email: info@dlrcoco.ie

Web: www.dlrcoco.ie

Notes



