

Turn Spoil into SOIL



A guide to Household Composting



LAOIS COUNTY COUNCIL



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Why Compost?

Composting is an easy way to recycle your garden and kitchen rubbish.

It provides a useful means of transforming biodegradable waste, such as fruit, vegetables, teabags and garden waste, into a product that can improve soil structure and nutrient levels. Even if you are not into gardening, you are reducing the amount of waste that goes to landfill so you are still helping the environment as well as your pocket! It is very easy to learn how to compost – read on to find out more...

The Science Bit...

Composting is a natural process, so natural, it happens everyday around you. Organic materials rot or biodegrade naturally into a brown/black crumbly material that can be used in your garden as a soil improver or natural fertiliser. This change occurs thanks to the 'breakdown gang' of insects, worms ('chompers'), fungi and bacteria. Then other microorganisms ('heaters'), which the human eye cannot see but live in the soil, start their work. Their combined efforts help turn spoil into soil.

How to start composting

To Build or to Buy - that is the Question!

Compost bins are available to purchase from Laois County Council or at your local garden centre/hardware store. The price can vary depending on the size of the compost bin required.

Laois County Council stock compost bins which are large enough for a family of 4-5 people (approximately 240 litres) and are made from 100% recycled plastic.



Then fold up the excess bird cage wire around the base of the compost bin – this will ensure the area around the compost bin is know proof and you should not have a problem with rodents around your bin. Try to use straw or torn cardboard at the base of your compost bin – this will be a good activator and will help to start your materials breaking down immediately.

Depending on the size of your garden and the amount of time you want to invest in your DIY project, compost bins have been successfully built using pallets, wire and wooden posts etc. If you are keen to build your own, simply contact the Environment Section of Laois County Council who will provide you with further details (contact details are on the back cover). Alternatively, gardening books now have information on how to build your own compost bin – the majority of this information is also available on-line.

Location, Location, Location – where to install your compost bin?

Locate the compost bin (or heap) in a position that is convenient to your house – make using it easy for yourself!

Try to choose a sunny spot and the soil should be free draining. This will ensure your compost will be moist but well aerated and will encourage insect activity and ultimately better compost. (In hot countries, compost bins can overheat and dry out – something that we do not have to worry about!) Loosen up the soil first and place bird cage wire on the ground (this is available from most hardware and DIY stores) and locate the compost bin on top of this.

Then it's all in the Mix!

Get the balance right between 'green waste' and 'brown waste' i.e. (nitrogen and carbon rich materials).

Brown materials are usually dry and include eggshells, sawdust and wood shavings, cardboard, dry leaves, straw and hair. Brown materials are slow to rot and are rich in carbon.

Green materials are usually moist and include green leaves, grass cuttings, vegetable and fruit peelings, tea bags, and flowers. Green materials act as a natural activator and help to speed up the composting process.

A good mix of browns and greens achieves the best balance and also helps with the aeration and amount of water in the pile. Too much of one or the other and you won't make good compost. For best results place the 'greens' and 'browns' in alternate layers about ten inches thick.

It is important to get the mix right – usually 1/3 nitrogen (green) material and 2/3 carbon (brown) material gives the best results.



What's Good & What's Bad?



What can you compost

GREEN WASTE	BROWN WASTE
Fruit & Vegetables	Kitchen Paper
Tea Leaves/Bags & Coffee Grounds	Straw
Garden Waste	Wood, Twigs & Branches (in small pieces)
Leaves (Green & Brown ones)	
Some Weeds	Crushed Egg Shells
Dead Plants and Flowers	Cardboard Egg Boxes
Grass & Hedge Cuttings	



What not to compost and why

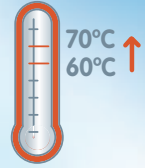
Raw & Cooked Meat, Bones	May attract pests
Poultry & Fish	May attract pests
Dairy Produce	May attract pests
Greasy Oily Food (eg: butter mayonnaise)	May attract pests
Dog & Cat Litter	May contain pathogens which are disease causing organisms
Plastics, Glass, Cans etc.	Will not decompose/biodegrade
Glossy Papers/Magazines	The glossy coating will not decompose
Weed Seeds	Some may thrive in heated conditions
Diseased Plants	Danger of spreading diseases to other plants
Disposable Nappies	Could contain pathogens

Stages of composting

The compost process can take anything from 2 months to 2 years and depends largely on what materials are being placed in the compost bin and how much time you devote to it! Generally, the more effort that you put in, the quicker you will get compost. The composting process occurs in 3 stages:

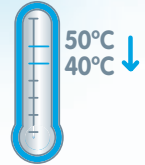
Stage 1: Degradation

The 'breakdown gang' feed on the materials placed in the compost bin. As they continually feed and multiply they raise the temperature to between 60 – 70°C. This process continues every time when a new batch of materials is added to the compost bin.



Stage 2: Conversion

As the materials are beginning to biodegrade, temperature within the compost bin begins to drop (at the end of the degradation phase). Other micro-organisms, which work at lower temperatures, move in to complete the job. This generally occurs at the bottom of the bin as it works predominantly on the materials left the longest.



Stage 3: Maturation

This is the final stage in the compost process. The compost that is produced should be a brown colour. Home produced compost differs slightly in appearance from shop/garden centre purchased compost and is ready for use when there are hardly any traces of the original materials left.

A garden sieve may be used at this stage to separate larger compost from smaller size compost. Remember to place the larger pieces back into compost bin to continue composting.



The finished product

The brown/green mix previously mentioned usually gives the best results. But as with most things, getting the correct mix comes with experience! When compost is ready to use you will not be able to recognise any of the original ingredients – this usually takes approximately 1-2 years (although it may take shorter or longer depending on the 'mix' of materials going in the compost bin). It should be dark brown/black and feel like topsoil in your own garden. To harvest your finished compost, simply open the lid at the base of the compost bin and shovel it out. Replace the lid when you are finished. Use your compost as mulch around plants, as a top dressing over your lawn to fertilise the soil or as a soil improver in vegetable or flower beds.



Questions for Dr. Compost

Q: Which compost bin is the right one to use?

A: Laois County Council sell compost bins at a reduced price to the public. When purchasing a bin, it is important to consider the amount of waste that your household produces (depends upon the size of your family, garden size/type). Compost containers vary in shape, size and even colour. Generally an average sized family (4 to 5 people) may use a 240ltr compost bin successfully. However, if you have a larger garden/or a large volume of grass and are interested in getting ideas on how to build your own bin contact the Environment Awareness Officer of Laois County Council.

Q: Why is my compost too wet?

A: Sometimes, especially if you are new to the composting process, you might not get the mix right the first time. If your compost appears too wet or a liquid may leak out from the bottom of your compost container it means that you are adding in too many 'green' materials that are rich in nitrogen. It is simple to overcome this, simply add more 'brown' materials that are rich in carbon (refer to page 3 for examples).

Q: Why is my compost smelly?

A: Smells may occur due to the lack of air in your compost bin (caused by the compost being too wet or too compacted). To overcome this, loosen your compost with a fork or stick. Alternatively, crumple up some newspaper sheets to introduce air pockets into your compost bin.

Q: I have a problem with flies in my compost bin?

A: When using your compost bin during fine weather or summer months, little flies may greet you as soon as you open the lid. These are generally fruit flies and are present to feed on the top layer of fruit or vegetables in your compost bin. All you have to do is either put a layer of newspaper or some grass over the fruit / vegetables and your fly problem should disappear, as they do not want to dig for food.



Tips for better composting

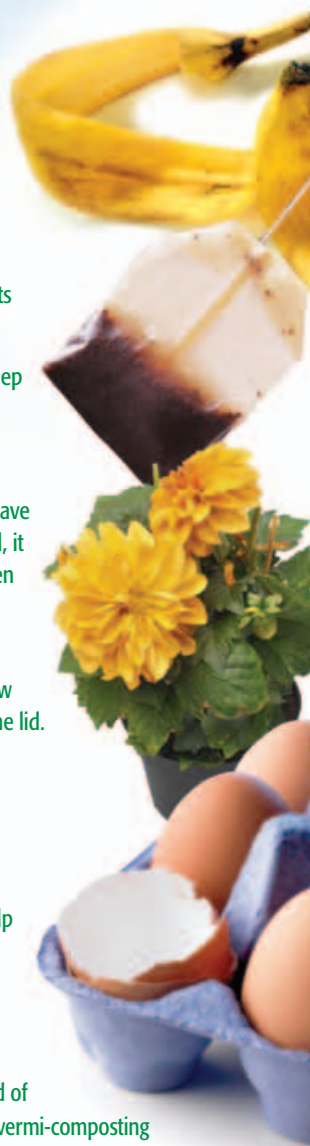
1. Don't throw away your kitchen scraps – add them to the compost pile. Kitchen scraps are typically high in nitrogen, which helps heat up the compost pile and speed up the composting process.
2. If you're composting with a compost pile, bigger is often better. Heat builds up with a big pile. You don't want to get much bigger than about 3 feet by 3 feet.
3. Keep your compost aerated – be sure to mix up the contents so that the pile gets oxygen and can break down effectively.
4. Don't let the compost completely dry out. A compost pile needs moisture to keep the composting process active.
5. Don't have compost that is too wet/soggy – it will start to smell.
6. Too much of any one material will slow down the composting process. If you have all leaves, all grass clippings or an overload of any other single type of material, it can throw off the balance of the pile. In general, it's good to keep a mix of green and brown material.
7. During colder weather, place an old piece of carpet or blanket on top of the materials inside the bin. Simply lift up the carpet every time you want to add new materials in the compost bin and then place it back over them prior to closing the lid. This will maintain the high temperature needed in the composting process.
8. Alternatively wrap plastic around the bin or compost heap, this will act as an insulation material and help the materials biodegrade quickly in the compost bin/heap as the required temperature will be sustained for a longer period.
9. Remember to keep the lid on your compost bin closed at all times – this will help to keep the heat in and maintain the composting process.

Interested in taking it a step further?

Lots of gardeners are taking composting a step further by using worms to 'eat' their food scraps. This is called vermi-composting – 'vermi' is the Latin word for worm. This method of composting is much quicker as finished compost can be produced in 2 to 3 months **but** vermi-composting can be very demanding on your time – as the worms used can be very sensitive to temperature changes (they hate extreme heat and extreme cold conditions) and the type of food you give them to eat.

The liquid fertiliser produced is called worm tea. This is a very nutrient rich fertiliser and will need to be diluted prior to placing it on plants/vegetables.

If you are interested in finding out more please contact the Environment Awareness Officer or log onto www.laois.ie



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**For further information on composting,
wormeries and waste management facilities
in County Laois, please contact:**

Environment Awareness Officer

Laois County Council

Áras an Chontae

Portlaoise

Co Laois

Tel: 057 8674322

www.laois.ie



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www.raceagainstwaste.ie

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