



compost toilets



what are they?

A compost toilet is a dry or waterless toilet, i.e. one that doesn't use water to take the waste somewhere else; it also allows natural processes to produce useful compost, after a resting period depending on the type of toilet.

DIY compost loos

There are usually two chambers – one in use and one resting. A typical toilet would use one chamber for a year, then change to the second chamber and allow the first to decompose for a year before emptying.

They don't smell, as long as there is a vent pipe, and a drain to take away excess liquid. A handful of a soak (straw or sawdust etc.) is dropped into the toilet after each use. This is because bacteria like to eat a balanced diet of carbon and nitrogen, and as human waste contains a lot of nitrogen, if they don't get enough carboniferous material (like sawdust, straw, hay, shredded paper) they will give off excess nitrogen in the form of ammonia,



indoors or outdoors? many people imagine that a compost toilet must be situated outdoors, but a vent and a lid closer will ensure that there are no smells, and an indoor toilet will be much more comfortable.

which makes the loo smelly. Also, the soak allows oxygen into the pile, and absorbs liquid. This allows the pile to decompose aerobically to produce nitrates, phosphates and sulphates. Without a soak, the pile will decompose anaerobically and produce methane, ammonia and hydrogen sulphide – all smelly and not very useful.

Human pathogens don't like conditions outside the human body, so almost all will be dead after a few hours. Only one type of roundworm egg can survive a year-long decomposition period, but even though it is a tiny risk, we recommend using the compost on fruit trees and bushes, not the vegetable garden.

off-the-shelf compost loos

You can also buy off-the-shelf toilets with one chamber - for inside or outside use.

what are the benefits?

main benefits

- the solid waste is dealt with on site, and doesn't have to be treated with chemicals in sewage farms, or end up in waterways
- saves water – you don't have to use one resource (pure drinking water) to flush away another (fertilizer)
- organic matter is allowed to go back to the soil where it belongs, improving soil structure and nutrition

other benefits

- no chemical cleaners or bleaches are used in the toilet
- they don't contribute to the sewage sludge that is often dumped in landfill, or more controversially, put on to agricultural land
- as long as the decomposition is aerobic, there will be no greenhouse gas emissions
- no electricity needed
- very low resource use – no pipes are needed to transport waste to a sewage farm, and no truck needed to remove solid waste



what can I do?

installing a compost loo: there are many different types that you can buy:

- **Seperett or AirHead** - eco-toilets.co.uk: the Seperett looks like an ordinary loo, and the Air Head is small enough to be used in a camper van or boat
- **Rota-loo** - plastic chambers on a turntable; fan; distributed in UK by Jonathan Cooke - jcooke@dragonbc.f9.co.uk / 01799 598086
- **Biolet** - small toilets, some models electric, some not; distributed in UK by wpc.uk.net
- **Clivus Multrum** - one large chamber; vent with fan, clivusmultrum.eu
- **Sun-Mar** (01502 478165): small; electricity used to evaporate liquids
- **Natsol** - natsol.co.uk, make their own twin-vault loos with stainless steel urine separator

or you can build your own. This will work out cheaper, and there is no need for electricity in a basic unit. The components of a basic unit are two chambers, platform, vent, hatch, and removable seat. Our book explains how to do it. Going on a course might be a good idea too.



emptying the chamber on a DIY loo: after using the chamber for a year, then allowing it to rest for a further year, it can be emptied via a hatch. The texture and smell is the same as bag compost bought from a garden centre.



AirHead: the AirHead is perfect for campervans, caravans and boats because it's tiny and self-contained.

using a compost loo: compost loos aren't flush-and-forget - a DIY loo should be checked daily to see that no problems are developing. If necessary, a fly-catcher can be made from a glass jar and a little perspex cone. Ensure that there's a bucket with 'soak' (e.g. sawdust) next to the loo. To stop a 'peak' developing, it may have to be 'knocked' every couple of months with a rake or hoe either via the hatch or seat - this may not be necessary though. After the toilet has been used for a year, remove the seat and blank off the hole. Move the seat to the 2nd chamber. A year later, empty the first chamber and move the seat back.

The procedure is different for various kinds of manufactured toilets. See our step-by-step guide for detailed on getting and using a compost loo.

resources

- see lowimpact.org/compost_toilets for more info, a step-by-step guide, courses, advice and books, including:
- D Darby, *Compost Toilets* (LILI)
- P Harper and L Halestrap, *Lifting the Lid*
- J C Jenkins, *The Humanure Handbook*
- thunderboxes2go.co.uk - outdoor compost loos for sale or hire

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