

various types of basic compost toilet

The simplest way to deal with your waste is to compost it directly. Have a bucket with a toilet seat over it, throw in a handful of soak (e.g. sawdust or straw) when you use it, and when it's full, tip it onto a heap, and add straw, hay, garden waste and kitchen waste.

The advantage of this system is that it is very cheap and easy, with all the benefits of compost toilets – you keep all your nutrients, and don't use water to flush them away.

The main disadvantage is that you have to handle it before it's composted, when you are transporting it in the bucket from the toilet to the heap. Most people would not like to do this, although it works well, and if you're up for it, there's no reason why not. Well, except that you'd probably have to live quite remotely as neighbours wouldn't like it, and it's labour intensive, and uncomposted human waste can contain pathogens, and these can be transported back to humans via flies. Also, you wouldn't want kiddies to play anywhere near the heap, in case they came into contact with pathogens. Apart from that, it's fine! See *The Humanure Handbook* - https://www.lowimpact.org/books/books_compost_toilets/.

wheelie bin loo

The DIY guide below is for a compost toilet inside the main house at Redfield Community. But we also built a different compost toilet system in the visitor centre – one based on wheelie bins. We built a straw-bale extension at the back of the centre (in a converted stable block), and as there is a drop in the ground level at the front and back of the centre, we were able to support the extension on 4x2 timbers so that there was a drop of around 5ft (1.5m) to the ground, under which a wheelie bin could fit.



Wheelie-bin compost loo underneath a straw-bale extension (clad with tongue-and-groove).

Inside the extension we fitted a washbasin and a toilet seat over a chute made from a 25-litre plastic bucket with the bottom cut off. The wheelie bin fits underneath this, and is sealed all round with thick black plastic sheet and gaffer tape. The toilet is used for a year, and then the gaffer tape is removed, the bin is wheeled out, the lid is put on (with some bricks on top so that no-one is tempted to open it too soon). This bin is allowed to rest for a year for its contents to decompose, and another wheelie bin is wheeled into place to replace it. This way you don't need two rooms / two seats – you continue to use the same seat, and alternate the chambers.



The drain pipe at the bottom of the wheelie bin slopes gently to a sewer drain.

After the first wheelie bin has rested for a year, it can be emptied, its contents used on fruit trees etc, and then swapped with the second, and so on.

Some adjustments were needed to this system though:

1. Because there is a chute, which is smaller than a box on a platform, it can pick up deposits on its sides – so it needs to be cleaned occasionally, using eco-cleaners and a toilet brush.
2. The chute was made from white plastic buckets. This needs to be painted with black bituminous paint – white is not a good colour for a compost toilet chute, for obvious reasons. Black camouflages things a lot better

3. There has to be a drain at the bottom of any chamber, and the original drain on the wheelie bins was a tap, which we opened around once a month or so into a container which we then tipped into a sewer drain or in the woods. This liquid surprisingly didn't smell too badly - it was a bit like the 'worm tea' that drains from a worm bin (or a bit like 'baby bio' or compost liquid fertilizer with a slightly earthy smell). So not as unpleasant a job as you would think; however, having a tap allowed the very bottom of the pile to turn anaerobic, meaning that even after a year, the bottom wasn't composted properly. We've now installed a permanent drain (a copper pipe falling gently to a sewer drain) and it's working much better.



A different fly-trap on our wheelie bin, consisting of a plastic bottle containing some water.

4. The wheelie bins don't have a vent. We thought that this might mean they would begin to smell – especially in summer. This hasn't been the case though, but if they do, we can install a piece of drainpipe on the side of the building, with a cowl above the roof line, cut a hole into the side of the wheelie bin, near the top, and insert the end of the pipe (there would need to be an elbow on the pipe to take it into the wheelie bin, and we would need to apply silicon sealant around the hole).



The chute into the wheelie-bin from the room above is secured with 'gaffer' tape to keep out flies.



The previous year's wheelie-bin 'resting' in an out-of-the-way place to allow the waste to decompose.



The seat above our wheelie-bin loo, with bucket of sawdust, and instructions on the wall.

temporary oil drum loo

We had a mini-festival here for a weekend, a few years ago. We had around 150 people camping, and so we set up a little temporary compost toilet in the sheep-shed, based on an oil drum. We fixed a seat on top, installed a vent, but no drain on the bottom. After the event, we removed the oil drum to an out-of-the-way place to allow its contents to decompose anaerobically over three years (anaerobic decomposition is slower than aerobic). Make sure the top is covered so that no water gets in while it's resting.

Alternatively we could have installed some sort of drain, or even a tap from which liquids could have been drained into the sewer or the woods after the event, and then the contents could have decomposed aerobically.



Temporary 'oil-drum' compost toilet, with vent pipe, and straw-bale steps.

straw-bale compost loo

'Green and Away', an outdoor environmental conference centre in Gloucestershire, have lots of environmental facilities, including a type of compost loo I'd never heard of before. It comprises a portable cabin on stilts, over a chamber made of straw bales. It's used over the course of several conferences or festivals (in the normal way, throwing in a handful of soak - usually sawdust - after use), then the cabin is removed, and the straw bales are pushed in to cover the pile. The floor of the chamber is the earth, which easily absorbs any excess liquid, and the pile is left to compost for one or two years. Grass grows over it, and it's pretty much hidden, and not at all an eyesore. The portable toilet room can then be positioned in a new location over another straw bale chamber. Apparently local environmental health inspectors visited and were happy with it.

This system is obviously only suitable for rural locations, and only then if you're sure that children won't be able to play on the pile.



Another temporary compost loo, this time with biodegradable walls!

compost toilet extension or outbuilding

You could have a room housing a compost toilet as an extension to an existing building. However, if the building is of natural materials such as straw bales, timber, rammed earth etc, then you have to remember that the walls of the chamber will still have to be brick / concrete block / plastic etc, and the floor concrete. You can then clad the chamber in natural materials.