Composting Toilets - The Facts

Having a toilet on your allotment site can be invaluable and makes being 'caught short' a thing of the past.

The composting toilet is a cheap alternative when mains toilets are not an option and when looked after and maintained properly can provide an environmentally friendly and odour free option. They work by turning human waste into an organic composting material which can safely be used to fertilise the soil, this happens using biological processes.

There are different types of toilet available and they can be built from scratch with some help from a few dedicated and enthusiastic volunteers. The most popular toilet is built from timber and raised off the ground with a chamber underneath to collect the waste, you could use a good sized garden shed to house the toilet. A good way is to have two chambers next to each other, when one is full it can be closed off and left to rot down and you then switch over to the other.

Each chamber has its own opening for removal of mature odour free compost. Some types of compost toilet catch the waste in movable containers whilst others generate the compost more slowly. Some compost toilets combine the urine and faeces whilst others separate them. Compost made from a mixture of both is generally better but is more likely to smell if not treated properly and requires larger quantities of the covering materials (straw, sawdust etc.).

CONSTRUCTION - Building it yourself

The toilet is best constructed by laying a concrete slab base with blockwork walls and being divided into two separate chambers. The chambers should then be cement plastered internally to give them a waterproof lining. The chambers should have an access panel or doorway built from marine ply or they can be blocked up with bricks and mortar which can be knocked down and rebuilt after the chamber has been emptied. Alternatively, you can place removable containers inside the chambers.

The next stage would be to place the floor of your toilet over the chambers making sure it is of strong sturdy construction you can then build the toilet block on top of this. For the seating area inside the toilet you can use thick ply, planed, sanded and varnished with two holes cut to the size of the toilet seats. You may also need some heavy duty plastic tubing attached to the underside of the hole to direct the waste. into the chambers below. The two chambers are used alternately with rotting down continuing in the full one. This is emptied just before the other chamber becomes full. When the chamber is full the lid

should be shut down securely and users made aware that the other chamber is now in use.

Before you start to use the composting toilet place a good layer of straw in the chamber, this will help the composting process along and stops the waste in the chamber becoming too wet. You can also add more straw to the chamber if it starts to become too smelly. After each use a covering of straw, sawdust or potash should be added which helps soak up the liquid and eliminate the pong! Once full it should take up to a year for the waste to rot down to become useable compost which can be used to enrich the soil around fruit trees and shrubs but do not use on vegetable crops. To work properly these toilets must have the right conditions for the waste to rot down. To create safe compost, the waste will need to spend a long time rotting down (about a year). The bacteria needed for this process are found almost everywhere that there is organic matter and will get to work almost immediately so it is essential to add plenty of the covering material to the waste to help speed this process along. Don't forget that you can add the toilet paper and empty cardboard tubes too!

Any steps or ramps leading up to the toilet should be sturdy and slip proofed. (A good way to do this is by tacking on chicken wire). Doorways can be a standard type shed door with latch but it's probably best not to fit a bolt to avoid any trapped children, a good visible vacant/engaged sign should suffice. It is also a good idea to provide clear laminated instructions on how to use the composting toilet. It is also ideal to have hand washing facilities in your toilet. A simple rainwater collection system can be sited on top of or next to the toilet and connected to a sink with a tap. along with paper towels which can be put down the loo! The waste from the sink can empty into a recycled water tank outside and can be used to water crops. Alternatively, a good hand sanitizer could be provided. Lighting for your toilet could be provided by a small solar panel or small battery powered lighting units.

Alternatively there are companies that can provide an eco-friendly alternative to the above and to chemical loos - check out their information HERE

Other Composting Toilets

TREE BOGS

Unlike a conventional toilet, tree bogs are another useful idea and should never need emptying. These have an outdoor chamber and are surrounded by plants such as willow and nettles and other nutrient hungry plants. The faeces are held in an open air chamber which allows rapid decomposition and feeds the plants around it. This is an effective way for converting human waste into a biomass. These types of toilet

are not ideal if the ground water level is high as it can lead to contamination.

REED BEDS
These are artificially created wetlands that are planted with reeds. The reed beds are designed so that liquid flows through the bed where the roots are and not over the top and the waste is turned into clean groundwater. The reeds, once grown do not require cutting as they will control their own growth. The main problem with reed beds is that they will require quite a large area of land. However, if this land is available the system can work well as the beds are cheap to install and efficient to run.

Helpful tips
Site your composting toilet as far away from food growing areas possible. An overgrown unused patch of ground or abandoned allotment is ideal. Try to build the loo on level ground and not where the area is prone to flooding or standing water. Make sure you don't need planning by checking with the council and that you have the approval of surrounding plot holders and householders before sighting your toilet and try to screen it off to make it less conspicuous and more private for users.

Try to make your toilet accessible to all including those with disabilities.

Cover it up! Always thoroughly cover the waste. Keep buckets of sawdust, potash or straw next to the loo. This should be added after each use and helps soak up liquid and helps with the decomposition process. There should be enough cover material inside the toilet at all times to completely eliminate unpleasant odours. Make sure people close the loo seat after use as this prevents infestations of flies. Provide clear information and instructions on how the toilet works and how to use it.

FUNDING
This type of project would be eligible for grant funding and there are many organisations that could help. Local councils often offer grants for local projects so it is worth getting in touch. Associations or groups with a constitution can apply for most types of grant funding. For other organisations that can help please see below.

Big Lottery Fund - Changing Spaces
Fund community groups who want to improve local green spaces such as play areas, community gardens, parks, wildlife areas and village greens, kick-about areas and pathway improvements. www.biglotteryfund.org.uk

Awards for All - **Lottery Grants for Local Groups** Supports projects which involve people in their local community, bringing them together to take part in and enjoy a wide range of arts, sport, heritage, charitable and other community activities. **Grants:** From £300 to £10,000 Tel: 0845 600 2040 www.awardsforall.org.uk Awards for All, 2 St James' Gate, Newcastle Upon Tyne, NE1 4BE.

Co-op Community Dividend
Supports local voluntary community and self-help groups by the provision of equipment. Projects must have a charitable purpose and be concerned with the environment, protection of heritage sites or promoting racial harmony. **Grants:** between £100 and £5,000.

An application form is available from Community Dividend, New Century House, Manchester, M60 4ES. Tel: (0161) 827 5879 or www.co-op.co.uk/membership

DOWNLOAD THE PDF HERE