self build compost toilet

in a few easy steps
www.composttoilets.co.nz

email James, Lydia or Lisa
info@composttoilets.co.nz
for advice, support, or workshops
Compost toilets (loos for # 2s)

These compost toilets are easy to construct, but there are some simple steps to ensure that the composting process works well. The process has to work well to eliminate health and water table contamination risks.

The most important thing is to keep moisture levels as low as possible and cover the poos with lots of carbon material (dry leaves, dry lawn clippings, shredded news paper or untreated woodchips). Most importantly, try not to pee into the compost toilet. See section below on how to deal with the pee. Just like regular compost, it needs air, moisture, and a balance of carbon and nitrogen to work well.
Using the compost toilet

*Important note:* Try not to pee into the compost loo bucket. This is really important but it is understandable that this isn’t always possible. The pee is the component that will produce the bad smells, explained below is an option for urine.

1. Scratch your head and decide if its pees or poos that are pushing.

2. Sit down and do your business as per usual, but trying not to pee in the poo bucket. Toilet paper can be dropped into the poo bucket, this adds more dry carbon material.

3. After your poos, place a large handful of dry carbon material over your poos (e.g small untreated woodchips, dried leaves, untreated sawdust, shredded newspaper or even dry soil) and ensure it covers the deposit. This will eliminate the odors and ensure flies don’t make themselves at home. A good suggestion is to use the 3rd bucket with this material beside the toilet. Timber mills and firewood suppliers are good places to pick up sawdust and woodchips.

4. Put the toilet seat back down.

Using the pee bucket

1. Each day ¼ fill the bucket with water
2. Pee into the bucket

   - Once a day pour this onto the garden. A good idea is to pour it into a watering can and distribute wherever you want fertilizer on the garden. It is important to empty the pee bucket daily as the nitrogen evaporates and it becomes smelly.

   - Pee is mostly nitrogen, which is really good for the garden, but plants can absorb it easier when it is diluted and this also makes it easier to manage.

   - If you position the pee bucket beside the compost loo then you can jump between the two to separate the pees from the poo : )

   - After peeing you can throw the toilet paper into the compost loo.
How to build the pee and poo toilet

Materials for the pee and poo toilet
• Plywood, particle board or any type of board.
• Screws
• 3 buckets
• 2 Toilet seats

1. Any material can be used to make a simple box for the buckets to be placed in. Plywood is easy and good.

2. Cut each side of the boxes as wide as the length of the toilet seat and 20-30mm higher than the bucket you are using.

3. Screw the sides together.

4. Measure the top of the boxes and cut a top to fit over them. The boxes can be built together like in the picture or separated. This will depend on the space you have available.

5. Take the top and put the toilet seat over the centre and draw around the inside hole of the toilet seat. Then cut a hole around 15mm larger than what you have drawn.

6. Fix the toilet seat to the plywood

To empty the poo bucket

1. Once the bucket is over half full, remove and take outside and tip it into the wheelie bin that has been set up. Details of this set up are explained overleaf.

2. After tipping the bucket contents into the wheelie bin, place a layer of organic matter on top of the deposits.

3. Flip the lid closed on the wheelie bin and leave in a sunny warm location somewhere in the garden.

4. Rinse the bucket clean, taking care where you put the rinse water. You can put it in your wheelie bin and add more dry organic material to keep the moisture levels down, or put it in fenced off part of your garden where animals and children won’t go.

5. Once the wheelie bin is ¾ fill, place a good layer of organic material on top. Grass clippings are good at this point to get some heat into the system. If you have a worm farm or know someone with one, place a handful of tiger worms in the bin as they love it.

If you have any questions, please contact us info@composttoilets.co.nz

Upload your photos and share your stories and techniques for compost toilets at www.composttoilets.co.nz

How to build the storage container

Materials for storage container:
• Wheelie bin (smaller 140L ones if available)
• Small length of down pipe
• A dividing plate (see details below)
• A hessian sack (see details below)

1. We suggest a small wheelie bin as they are easy to transport and can easily be set aside for composting. The composting process can take up to 2 years, but usually less. If you don’t want to use your wheelie bin, get in touch and we will help you come up with another solution. Many people compost their manure in open compost heaps, but steps have to be taken to ensure that liquid doesn’t leach into the ground.

2. Inside the wheelie bin place something that will keep the deposited material off the bottom. In the past, we have used broken fruit or bread crates or supermarket shopping baskets cut to fit in the bottom, but sticks piled up or anything will work, as long as what you use lifts the deposited material a minimum of 150mm off the bottom of the wheelie bin.

3. Place a hessian sack or alternatively a piece of an old bed sheet, a piece of woven plastic or anything that will stop the deposited material from falling into the 150mm cavity at the bottom. Best to use something natural that will compost, like hessian sack as it will break down opposed to plastic that won’t.

4. Place a piece of pipe up an inside corner of the wheelie bin, which can run from the 150mm cavity that you have created and reaches to about 50mm below the top of the wheelie bin. It is best to drill or cut small holes in the side of the pipe the entire length of it. We have found drain pipe or down pipe to be really good. The purpose of the pipe is to allow air to flow up and down, therefore reducing the overall moisture levels.

5. When the wheelie bin is ¾ fill, sprinkle a good thick layer of any dry organic matter, eg. dry leaves, dry garden soil, small dry wood chips or grass clippings. But generally anything brown and organic will work for this. It is important to have dry organic material going into these compost toilets and the drier the better

• Please email us when the wheelie bin is 3/4 fill so we can help you decide what to do with it. With a household of 3-4 people you should have at least a good 3-4 weeks of use before you 3/4 fill the wheelie bin. Ensure you only 3/4 fill the wheelie bin.

• It will look like fantastic compost after 9 or so months. It is amazing stuff.
• This diagram shows the completed wheelie bin with a dividing plate made from a cut bread crate with a hessian sack on top of it and a layer of dry organic matter. It shows the pipe with holes running up one corner and when there are deposits put in, the excess liquid will drain to the bottom chamber separated from the solids.

• It also shows where to cut out of the bread crate and that when it’s inside the wheelie bin it can be supported by garden pots turned upside down.
A simple short-term composting toilet

Dig a hole about 500mm deep and 400mm diameter in a private spot in the garden. Put a 150mm layer of broken twigs, sticks, leaves etc at the bottom. This will help separate the liquid to let it drain away easily. To make a comfortable seating arrangement, do the following…

1. Cut the bottom out of a 20 lt bucket.

2. Put the bucket upside down on a 700x700mm piece of plywood and draw a line around the inside of the bucket. Screw the bucket on the plywood using the rim of the bucket to screw through.

3. Take a 400x400mm piece of plywood and put the toilet seat over the centre and draw around the inside hole of the toilet seat. Then get the bottom of the bucket which is now cut out, and position it towards the back of the toilet seat shape. Cut this bucket shape circle out and push the bucket into the hole and fix screws from the inside of the bucket into the plywood.

4. Fix the toilet seat to the smaller piece of plywood.

5. Put the whole thing over your newly dug hole and you have an immediate toilet.

- Ensure you cover each and every deposit with mulch/dry grass clippings/leaves/shredded newspaper or what ever organic material you have around. This will eliminate the odors and ensure flies don’t make themselves at home. A good suggestion is to have a bucket with this material beside the toilet.

- When you have nearly filled the hole with deposits, add a layer of organic matter and then fill the rest of the hole in with soil. Leave it for 6 months and watch that space, things will grow well.

- This option is no good if the ground water level is really high.