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Green Product Series: Considering Composting Toilets for Your Green House Plans

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Green House Plans Product Series: Drain Water



Heat Recovery



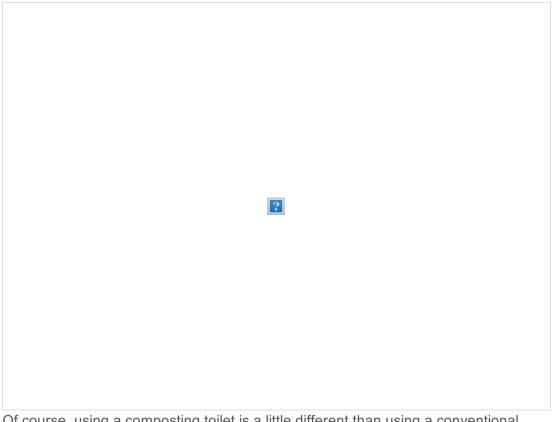
Okay, this may not be the most glamorous concept, but a composting toilet is definitely a feature you'll find in some green house plans. Composting toilets (which are sometimes called dry toilets, waterless toilets, or biological toilets) save water, localize the waste process which saves energy, and lower the strain on municipal wastewater systems which protects water supplies.

Humanure, the word often used to describe the output of a composting toilet, comes out looking similar to dry soil, which can be buried or given to a licensed seepage hauler in the US. Some countries, especially those still developing and without sewage infrastructure, can even use the humus as a soil conditioner.

So how does a composting toilet work, you ask? Here are the basics:

- **Dry:** A composting toilet doesn't use water to flush your waste.
- Aerobic digestion: Friendly bacteria and fungi process your waste via aerobic (with oxygen) decomposition, breaking it down to 10% top 30% of the original volume.

- Exhaust system: Most composting toilets are constructed with an exhaust system (often using a fan) to force any offensive odors away, as well as water vapor, carbon dioxide, and so on.
- Drain and ventilate: The composting toilet usually consists of several components for draining and ventilation – one that allows liquids and leachate to drain, and one that provides ventilation to introduce oxygen into the system.
- Mix-ins: Many compost toilet users will add things like sawdust or coconut coir after each use to introduce air pockets and carbon material. These bulking agents absorb liquid and help control odor as well. Additionally, some users will add a microbial starter culture to speed up the composting process.
- Active vs passive: Passive systems consist only of the collection bin and the additive, and require no mixing or aeration. An active system, on the other hand, has an automatic mixer, fans, pile-leveling devices, tumbling drums, and heaters controlled by thermostats.
- Removal hatch: This allows the user to remove the humus once it has matured.
- **Sanitary:** The good bacteria and fungi will destroy or immobilize disease-causing pathogens, making it non-toxic to the environment.



Of course, using a composting toilet is a little different than using a conventional one, especially since you can't just flush and forget. You won't be flushing, though you can use toilet paper. Instead, after each use, you may sprinkle in some bulking agent or starter culture. Then you're done! Depending on your system, you may need to aerate your humanure and of course you'll need to empty it as part of the regular maintenance.

Rest assured, though this may sound very rustic, composting toilets can actually be very stylish, as you can see from the samples here. So check out composting toilets (wath this video for further information) and see if you can incorporate them into your green house plans.

Images via tuvie and loowatt (this one's made of horse dung, so it's biodegradable!).



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