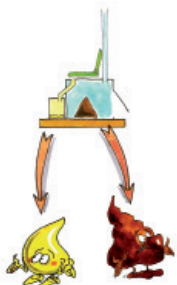


How to separate faecal matter?



Urine diverting toilets do not mix urine and faeces. Urine is collected and stored in a reservoir. Faeces are collected underneath the toilet - which must be then covered by dry materials such as saw dust, soil or ashes or a mixture of toilet and must.

Why should we mix what nature has separated?

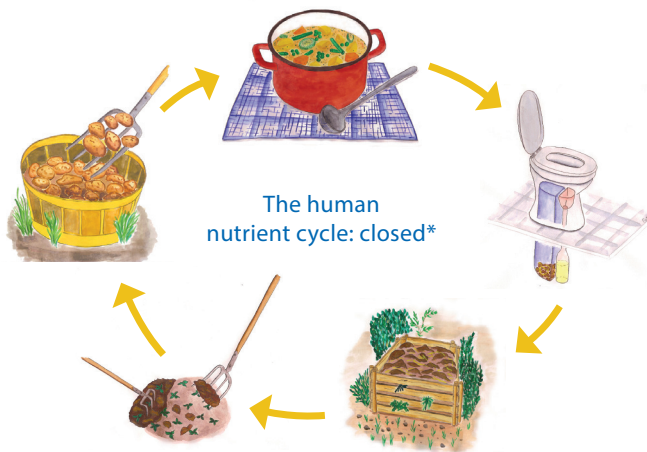


Separation and storage of faecal matter of ecosan toilet

Hygiene: Fresh faeces contain infectious pathogens. Therefore, hand washing after handling of fresh faecal matter and faecal compost is a necessity. Also eating, drinking and smoking when working with these materials should be avoided. Compost can be safely applied after a proper composting process of at least one year if adequate composting temperatures are higher than 50°C have been reached. A withholding time of one month between the moment of application of the compost and the time of crop harvest is recommended.

References:

World Health Organisation, 2006: WHO Guidelines for the safe use of wastewater, excreta and grey water, Volume 4, Use of excreta and grey water in agriculture http://www.who.int/water_sanitation_health/wastewater/gsuww/en/index.html
 Ecosanres, 2004: Guidelines on the safe use of urine and faeces http://www.ecosanres.org/pdf_files/ESR_Publications_2004/ESR1web.pdf
http://www.ecosanres.org/pdf_files/ESR_Publications_2004/ESR2web.pdf



The human nutrient cycle: closed*

*for the re-use of urine see separate flyer "Urine - the yellow gold"

Ecological sanitation does not waste resources, does not pollute the environment and closes the Loop of Nutrients (not like pit latrines or flush toilets without treatment). Composted faecal matter is a valuable soil improver and a Phosphorus and Potassium rich fertiliser.

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RURAL COMMUNITIES DEVELOPMENT AGENCY

Compost – the black gold

Safe re-use of organic waste and faecal matter to increase your yields and improve your soil



Women in Europe for a Common Future | WECF

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Why composting organic waste and faecal matter?

Human faeces and other organic waste are rich in plant nutrients

Through composting, these nutrients become readily available for plants and in the same time faecal matter is sanitised and does not spread in the environment.

The advantages of composting are:

- Increasing soil fertility, ability of the soil to retain moisture
- Increasing harvest and and saves money
- Providing an alternative to burning autumn leaves and weeds
- Avoiding illegal dumping of garden and animal waste
- Protecting the environment and is a safe way to sanitize human and animal excreta



Compost can be used for growing plants, corn, vegetables and fruit

What is compost?

Compost is a natural material of recycled organic waste. Compost is rich in organic matter nutrients, particularly in Phosphorus and Potassium as it enriches the humus content and improves microbiological activity. In the process of composting, organic waste is generated under the influence of living organisms - micro and macro-organism. The active micro and macro-organism produce a hot climate in the compost heap so that the material is sanitised; pathogens and parasite eggs are deactivated.



Compost, ready for fertilisation

Which waste can be composted?

- Leaves, grass clippings, hay, shredded paper, saw dust
- Kitchen and garden leftovers
- Coffee ground and tea leftovers
- Animal dung and human faecal matter
- Human urine (can be added when the pile is too dry)

When and how to apply compost?

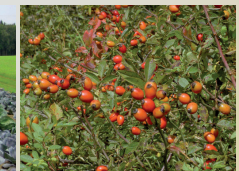
Compost should be applied prior to sowing or planting or at the vegetation stage. The compost should be incorporated into the soil, and not be applied to vegetables eaten raw. The amount of the applied compost can be 4 – 6 liters per m² for vegetables, 1 – 3 liters per m² for fruit trees and beans.



Faecal and other organic matter can be safe re-used for growing crops after an adequate sanitising process



Harvest after 1 month or later



Do's	Dont's
<ul style="list-style-type: none"> • compost a mixture of green and brown (nitrogen rich and poor), wet and dry organic waste • let the compost breath by adding structured organic matter and/or turning it from time to time • make the pile at least with a size of one cubic meter • take care for sufficient aeration • in cold regions compost human faecal matter during 2 years 	<ul style="list-style-type: none"> • adding food (e.g. meat) which attract rats • making the compost too wet or too dry • Allowing children, dogs or rats to enter the compost pile • applying compost directly to raw eaten vegetable and fruits whose eatable parts rest on the soil