Why should we mix what nature has separated?

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



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.

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



\* 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.

#### **About WECF**

WECF is an international network of over 100 women's and environmental organisations in 40 countries, implementing projects and advocating globally for a healthy environment for all. Sustainable sanitation demonstration projects have been implemented in Central and Eastern Europe, Caucasus, and Central Asia by WECF and network.

Contact person: Claudia Wendland, claudia.wendland@wecf.eu

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**WECF The Netherlands** PO Box 13047 3507 LA. Utrecht The Netherlands Tel: +31 - 30 - 23 10 300 Fax: +31 - 30 - 23 40 878

Rekening 1266.45.116 Tenaamstelling: Wecf IBAN: NL96 RABO 0126 6451 16 BIC: RABONL2U

**WECF Germany** Sankt-Jakobs-Platz 10 D - 80331 München Tel: +49 - 89 - 23 23 938 0

Fax: +49 - 89 - 23 23 938 11

Kontonummer: 13 13 90 50 Bankleitzahl: 701 500 00 Stadtsparkasse München IBAN: DE68 7015 0000 0013 1390 50

WECF France BP 100 74103 Annemasse

Crédit Agricole de Savoie -Annemasse Saint André Compte n° 18106 00038 96711941875 56 Code IBAN: FR76 1810 6000 3896 7119 Tel / Fax: +33 450 37 71 98 4187 556 Code BIC: AGRIFRPP881

The Netherlands Ministry of Foreign Affairs





# Compost - the black gold

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



# Human faeces and other organic waste are rich in plant nutrients

Through composting, these nutrients become easier 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

### Do's

- 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 compose human faecal matter during 2 years

#### **Dont's**

- 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

## What is compost?

**Compost is a natural material** of recycled organic waste. Compost is rich in organic matter nutrients, particularly in Phosphorus and Potassium 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









