

recover



How do we recover (P)



While washing your hands you will discover the P-recovery lab behind the glass. Here we safely and hygienically recover Phosphorus and other nutrients from Pee.

We currently use 2 different processes that lead to 3 fertilizer products. These processes are low-tech and only require very common and accessible materials.

Process 1

Stripping

During storage bacteria and enzymes turn the

urea in the Pee into

ammonia.

With air blown into the stripping reactor the ammonia is transferred into the gas phase and led to the gas

scrubbing units.

The ammonia reacts with the sulfuric acid to ammonium sulphate, the first fertilizer product.

The liquid in the stripping reactor flows over hemps strings and Phosphorus precipitates with eg. Potassium and Calcium. This is the second fertilizer product.

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Process 2 Evaporation

Calcium Hydroxide (lime) is added to increase the pH-value and to prevent urea hydrolysis (which is unwanted in this process).

The liquid slowly flows over the Jute sheets. Small ventilators speed up the evaporation process.

During the evaporation, salts containing Phosphorus and Nitrogen stay behind on the shields due to drying.

+ 3

The exiting air is led through an activated carbon filter to prevent unpleasant odours and prevent unwanted emissions.





