

# Translations:Phytoépuration eaux usées/140/en

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The water percolates across the gravel and is collected by a drain at the bottom of the filter, spending between 4 and 8 hours in this first stage. The environment not being flooded with water makes it rich in oxygen, which stimulates the aerobic bacterial activity necessary for the mineralization of the organic particles. Mineralization is a result of complex chemical reactions based on the principle of oxidation of organic compounds. It is this mineralization process that allows the transformation of an element from being non-assimilable by plants to assimilable. The simplification of of the reactions looks like:  $\text{Norg} \Rightarrow \text{NH}_4^+ \Rightarrow \text{NO}_2^- \Rightarrow \text{NO}_3^-$ .