

Phosphorus recycling through fertilizers

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Advances in nutrient recovery from anthropogenic, renewable sources is promising. Technology and processes exist, particularly to recycle phosphorus (P). Over the last years, efforts to recover nutrients have also gained importance in Switzerland. Currently, the waste legislation is being completely revised, in order to respond to the demands of a modern waste policy. For the first time, it will become mandatory to recover P with a transition period of 10 years. This generates new demands on the material and energy utilization of P from secondary sources. Such sources are municipal wastewater, sewage sludge from wastewater treatment plants, sewage sludge ash, or meat and bone meal. Calculations have shown that the recoverable amount of P equals the amount of imported P. This substitution potential can be tapped and used for fertilizer production and application, on consideration of agronomic usefulness and acceptable eco-toxicological risk levels. The presentation gives an outline of the general situation and highlights the regulatory developments.