

## EIP-AGRI practice abstract -

### Short title:

Struvite from digestate and manure by "REVAWASTE" process

### Summary:

REVAWASTE Project is the sustainable management of a broad spectrum of wastes (industrial waste, non-recyclable fraction proceeding from waste treatment plants and agrofood waste) by application of the Multi-Waste Plan. The struvite (magnesium ammonium phosphate) precipitation in REVAWASTE project recovers the P contained in the digestate and manure, in a form of a compound with fertilizing properties. The possibility of reusing the liquid fraction generated in the process for local consumption in the facility and in the vicinity area (irrigation, cleaning, etc.) is also a possibility.

Struvite precipitation is one of the processes to recover phosphorus from wastes, animal manure and digestate. The produced struvite has been found to be a good slow release fertilizer and provides essential nutrients (Mg, N and P) for agriculture and horticulture, with lower environmental risk of leaching, greater efficiency on its action, equal or even better effectivity for P and cheaper compared with regular mineral P fertilizers, without metal or other hazardous compounds, in the meantime reduces the costs of managing livestock waste.

The input materials are pig manure digestate,  $MgCl_2$  and NaOH; and the struvite product has a NPK rate of 5-28-0, with a price at 250-400 €/t.

In the absence of approval of the framework for the new facultative European regulation on fertilising products, in many countries, struvite cannot currently be used as a biofertilizer, as it is classified as waste. It is recommended in conventional farming, overall in permanent grassland and arable land crops. The application dose is recommended to be 0.140 t/ha.

For more information: [https://nutriman.net/farmer-platform/product/id\\_250](https://nutriman.net/farmer-platform/product/id_250)