

## TRAINING MATERIAL

### Title:

Struvite from digested sludge and wastewater by "NuReSys" process (ID:293)

### Training:

#### What is the product?

The produced struvite, Biostru©, is a pure, contaminant free, product ready for direct reuse or by preference as commodity product to be blended in with other nutrients to obtain an equilibrated nutrient ratio.

#### Who is the vendor of the product?

Nutrients Recovery Systems is a Belgian company founded in 2011 which supplies in particular controlled struvite crystallization technology. It should be clearly mentioned that NuReSys is not a fertilizer company with the sole and main purpose to recovery phosphate as a fertilizer. Their approach is customer driven problem solving related to phosphate problems.

#### Which other product are provided by the vendor?

None

#### Which are the advantages of the product and the problems addressed?

Uncontrolled struvite formation is a major cause of high maintenance costs and downtime on municipal sludge processing lines especially when combined with biological phosphate removal. The NuReSys technology wants to tackle these operational problems by controlling the struvite process.

#### Which is the nutrient content of the product?

Nutrient Content (N-P-K %): 5.6 N; 12.6 P; 0 K - 10 Mg (% w/w), slow release of nutrients.

#### Which equipment and methods can be used to apply the product?

Biostru© can be applied directly and is available for domestic use in 1-10 kg package. Biostru© is also available in bulk to use for blending with other fertilizer to optimise nutrient ratio's. It can be applied as other solid chemical fertilizers, best before seeding/planting. Struvite is only soluble in acidic conditions.

#### How to use the product?

It is a pure crystalline product with non-detectable heavy metal content or well below admitted levels (Zn). Struvite has already been recognized for its slow release properties and has as such been incorporated in successful custom-made fertilizers.

It so can be used in conventional farming especially in horticulture. The dose depends on the specific demand of the crop and nutrient availability of the soil.

**Which are the authority permits and in which EU countries?**

End of waste (Belgium / Flanders)

NF U42-001-01 norm as inorganic NP fertilizer (France)

**How much does it cost?**

Price range: 80-120 €/ton depending on the package. For example you can see the bigbag package in Figure 1.

# NuReSys<sup>®</sup>



Figure 1. Big bags of Nuresys' struvite. In the right you can also see an example of the size of the microgranules.

For more information: [https://nutriman.net/farmer-platform/product/id\\_293](https://nutriman.net/farmer-platform/product/id_293)