

## TRAINING MATERIAL

### Title:

Pelletized digestate from mixture of pig manure, poultry manure and straw by "MIX-FERTILIZER" process (ID:267)

### Training:

#### **What is the product?**

Fertilizer in pellet form from the organic composted waste from the solid fraction of the digestate and from the ammonium sulphate obtained from the stripping of the liquid fraction of the digestate

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

Fundación CARTIF.

CARTIF is a horizontal, private and non-profit technology center. Its mission is to offer innovative solutions to companies to improve their processes, systems and products, improving their competitiveness and creating new business opportunities.

CARTIF develops R&D projects, directly funded by companies or public funds raised through competitive calls for national and international level. CARTIF also advises public authorities (municipalities and regional governments) in the planning and development of innovative projects with high economic returns.

#### **Which other products are provided by the vendor?**

Microalgae based biofertilisers from wastewater by heterotrophic microalgae process.

Struvite from digestate and Manure by "REVAWASTE" process.

Digestate from the co-digestion of vegetable oils waste and pig manure by "VALUVOIL" process.

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

Because of their dual nature, the new fertilizers have shown a number of environmental and economic benefits over currently marketed products such as soil quality improvement, minimization of nitrogen losses through nitrate leaching, GHG emissions reduction, agricultural yields increase and cost reduction by a single application. Finally, CARTIF has evaluated the Carbon Footprint of the process and has carried out the Life Cycle Assessment of these new products (Figure 1).

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

N-P-K (%): 10-4-4

Organic carbon content (%): 26.22

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

The product is presented as 4 mm diameter pellets, which can be dosed with the agricultural machinery used for traditional fertilizers. The effluent obtained in the stripping process can be fertirrigated with traditional agricultural machinery.

**How to use the product?**

Dosage: 300-1,000 kg/ha

Cultivation methods: open field or greenhouse

Recommended crops: cereals for the production of grain, root crops and plants harvested green from arable land by area. It is recommended to make only one dosage during sowing.

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

N/A

**How much does it cost?**

The cost of manufacturing the product depend on the amount of digestate to be treated.



Figure 1. MIX-FERTILIZER process pellets

For more information: [https://nutriman.net/farmer-platform/product/id\\_267](https://nutriman.net/farmer-platform/product/id_267)