

TRAINING MATERIAL

Title:

NPK organic fertilizer from poultry droppings with "SECONOV" dehydration process (ID:370)

Training:

What is the product?

The product looks like brown spherical pellets 1.5 cm diameter. The product "Dried poultry droppings" (DPD) is made from poultry effluents of the French agricultural holding "La Vallée", in Charente-Maritime (F), by drying with the SECONOV process.



Product category : PFC 1.A.I – solid organic fertilizer (regulation UE 2019/1009 of 5 june 2019) of the ternary type.

Who is the vendor of the product?

The vendor is Christophe RICHARD from EARL La Vallée.

Which other products and services are provided by the vendor?

None.

Which is the nutrient content of the product?

4.6 % N – 3 % P₂O₅ – 2.9 % K₂O – 1.25 % SO₃ in raw matter.
OM = 65 % RM - C/N = 7,1

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

The dehydrated poultry droppings are a fertilizer obtained with a simple thermal treatment without chemical inputs. The agricultural origin of this product ensures a high ability to be recycled in the soil. As a product with low water content, the dried poultry droppings are an organic fertiliser offering spreading conditions comfortable for the neighbourhood : no odour.

The low C/N ratio indicates a real property to feed the crops and not only the input of organic matter. Its balance between the three major elements allows to cover the main crops needs.

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

Gloves and a mask are recommended for greenhouse handling.

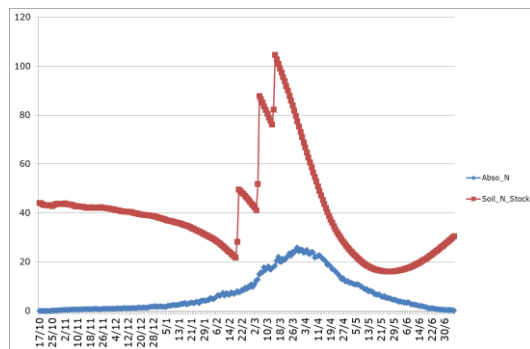
For ground application on arable land, the product can be spread with an universal spreader or with some spreaders with spreading tables.

How to use the product?

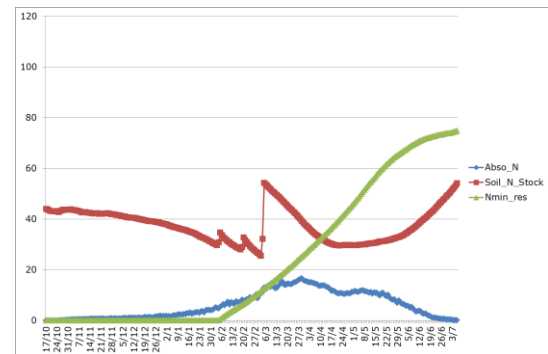
Cultivation : Mainly open field but it can be used in greenhouse.

Using the DPD can ensure a nitrogen release with a better matching with the crop needs :

Example of winter wheat crop

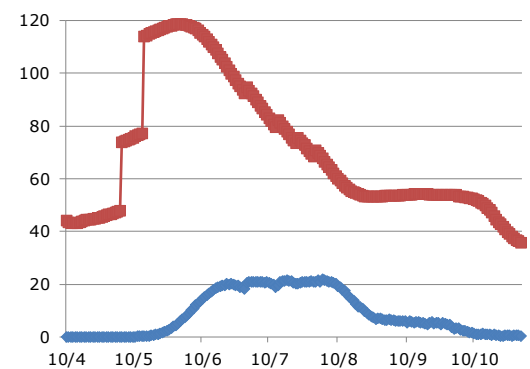


With 3 supplies of mineral N

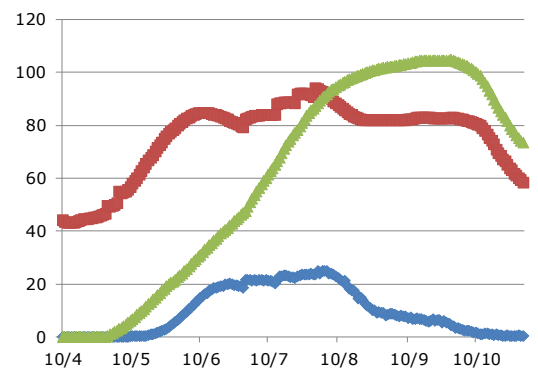


With 2 supplies of DPD and one supply of mineral N

Example of corn crop



With 2 supplies of mineral N



With 2 supplies of DPD

Blue curve : N absorbed by the crop (x100 g N/ha) - Red curve : stock of mineral N in soil (kg N/ha) - Green curve : N released from DPD (kg N/ha)

The stock of N mineral in the soil increases less highly, the N absorption lasts longer; the nitrogen is better allocated during the plant growing and is better valorised by the crop.

Typical doses : from 1 to 4 t/ha according to the harvested objectives. This product can be used as the first fertilizing input.

- Wheat/Barley : 1 up to 2 tons/ha
- Corn : 1 up to 3 tons/ha
- Rapeseed : 1 up to 3 tons/ha
- Sunflower : 1 ton/ha
- Grapes : 1 ton/ha

It is considered that one ton/ha brings to the crop : 32 kg N/ha – 12 kg P₂O₅/ha – 18 kg K₂O/ha. These values have to be specified according to the local conditions with agronomic trials.

Recommended crops: Wheat, Barley, Rape, Corn, Sunflower, Potatoe, Grapes, Fruit trees.

Applying on crops :

- Gloves and a mask are recommended for greenhouse handling.
- For ground application on arable land, the product can be spread with an universal spreader or with some spreaders with spreading tables.

When?

- For winter crop : as soon as vegetation resumes – in case of high nitrogen credit in the soil, waiting about ten days (be careful of your local environmental regulation about the fertilizing periods);
- For spring crop : 15-20 days after sowing.

Storage : The DPD product can be stored in heaps but under cover and in a dry place.



Which are the authority permits and in which EU countries?

Marketing in France using the French standard NF U42-001.

How much does it cost?

4 - 40 €/ton (basis value) or 125 €/ha (average value depending on crop, harvest goal, soil...)

For more information: https://nutriman.net/farmer-platform/product/id_370