

Nutrient Management and Nutrient Recovery Thematic Network

General presentation of the fertilizers used in the demonstration trials in Italy

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The BioPhosphate (ID:192)



ID 192: https://www.agrocarbon.com

Country: Hungary, produced by 3R-Biophosphate Ltd.

Input material: food grade animal bone

Nutrient content: $>30\% P_2O_5 + >38\% CaO$.

Recommended crops: horticultural, fruits, grape, rice, tobacco.

Dosages: 0.2-1.5 t/ha.

Type of farming: conventional, low input, organic





The BioPhosphate (ID:192)



ID 192:

https://www.agrocarbon.com



- -High nutrient density
- -Increase the macroporosity of the soil
- -Natural/organic
- -BIO-NPK-C formulation competitive on the market and economics



Calcium Sodium Phosphate (ID:397)



ID 397: https://www.outotec.com





Country: Germany, produced by Outotec GmbH & Co. KG

Input material: Sewage sludge ash, sewage sludge

Nutrient content: (N-P-K %): 0% N - (15-25)% $P_2O_5 - 1\%$

 K_2O

Recommended crops: all

Dosages: depending on P-nutrient needs of the crop and Pstatus of the soil

Type of farming: conventional



Calcium Sodium Phosphate (ID:397)







- -High content of highly soluble P in neutral ammonium citrate> 80% as calcium-sodium-phosphate
- -Not soluble in water
- -Reduced risk of runoff, leaching and fixation
- -Supply of P on request: release of P only in the presence of exudates from the roots of the crops
- -Fertilizer performance comparable to triple superphosphate.



Struvite 1 (ID:250)



Country: Spain, produced by Fundacion Cartif

ID 250:
https://www.cartif.es/en

Input material: pig manure digestate, magnesium chloride and NaOH

Nutrient content: N-P-K %: 5-28-0

Recommended crops: permanent grassland, cereals, root crops, plants harvested green from arable land by area

Dosages: about 0.14 t/ha

Type of farming: conventional



Struvite 1 (ID:250)



ID 250: https://www.cartif.es/en

- -No risk of overdose
- -Avoid abrasion of the roots.
- -High availability.
- -Provides a constant supply of nutrients.





Struvite 2 (ID:208)



ID 208:

https://www.dam-aguas.es



Country: Spain, produced by DAM

Input material: wastewater sewage

Nutrient content: 5 N%, 29 P_2O_5 %, <1,0 K_2O %

Crops: cereals, wheat and spelt, barley, oats and spring cereal, grain, maize

Dosages: 1'170 kg/ha for potato, 921 kg/ha for wheat

Type of farming: low input



Struvite 2 (ID:208)





https://www.dam-aguas.es



- -No risk of overdose
- -Avoid abrasion of the roots.
- -High availability.
- -Provides a constant supply of nutrients.



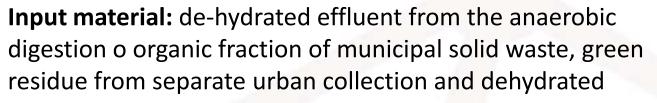


Compost (ID:210)



ID 210:

http://ambiente.aceapinerolese.it



effluent from the wastewater treatment plant.

Country: Italy, produced by ACEA Pinerolese

Nutrient content: 2.4% N (d.m.), 2.3% P₂O₅ (d.m.), 1.3% K (d.m.)

Crops: potato, wheat, cabbage, pumpkin, cucumber, tomato, leafy vegetables, celery, leek and other crops – horticulture, floriculture, arboriculture.



Compost (ID:210)



MEDIA +



Dosages: 10-30 t/ha (according to soil quality, season, crop

uptake, ...)

THE PROJECT +



Type of farming: conventional

Benefits:

-Produced from selectively recovered pre-digested organic waste streams

LINKS

CONTACT

FARMER PLATFORM

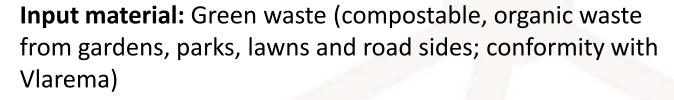
- -Closing material and nutrient cycle: safe source of carbon, nitrogen, phosphorus and other macro/microelements
- -Improves soil biodiversity by increasing microbiological fauna and flora
- Slow release of nutrients
- -The anaerobic digestion process allows the production of biomethane.

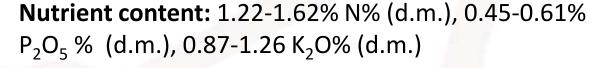


Green compost (ID:280)









Crops: potato, wheat, cabbage, pumpkin, cucumber, tomato, leafy vegetables, celery, leek and other crops – horticulture, floriculture, arboriculture.

Dosages: 20-25 t/ha (depending on soil, season, crop,...)



Green compost (ID:280)







Type of farming:

Conventional and organic

- -It is a multi-nutrient, high-carbon soil improver that supports soil fertility,
- -Controlled release of nutrients, thus reducing the risk of leaching
- -It is a stabilized and sanitized final product.



Dried Digestate (ID:270)



ID 270:

https://www.facebook.com/arbio bvba/



Input material: mix of manure and organic waste

Nutrient content: 5.9 N% (d.m.) 3% P₂O₅ (d.m.)



Crops: fresh vegetables and strawberry, potato, sugar beet, fresh vegetables, grapes, permanent crops (fruit tree), permanent grassland

Dosages: 4 t/ha (depending on soil, season, crop...)

Type of farming: conventional, low input.

Dried Digestate (ID:270)



ID 270:

https://www.facebook.com/arbiobvba/



- -Closing material and nutrient cycle: safe source of carbon, nitrogen, phosphorus and other macro/microelements
- -Good N/P ratio
- -Improves soil biodiversity
- -Dry pelletized: optimized storage and transport and long shelf life





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www.nutriman.net







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