

3R-BioPhosphate Ltd.

Foundation

1989

Employees

13

Branches

- Recycling and Reuse
- Organic low input farming
- Water treatment

Key materials

- Phosphorus biofertiliser
- Adsorbents

Key products

- ABC Animal Bone Char
- BioPhosphate
 high concentrated recovered
 calcium phosphate products
 for organic farming and

adsorbent applications

AGROCARBON TO RECYCLE

3R-BioPhosphate

The Swedish origin technology intensive innovative SME company is specialised on the application driven research, technical development and industrial engineering of recycling and high added-value reuse of by-products and unexploited biomass from the agriculture, food industry and other industries. competences: circular economical recovery of materials: Phosphorus recovery technologies and products, commercial applications; 3R zero emission pyrolysis technology; policy and recovered product standardisation. Strategic business organisation for European recycling innovations with global market dimension, related to the organic fertilizer, bio-energy and water treatment sectors. The BioPhosphate processing and applications are specific designed and complex high-end technology. The output products are of high quality/safety with unique character for unique applications and market competitive economical. The legal, business and IPR status is clean, clear and transparent; that is owned by the sole inventor and Swedish senior engineering designer Edward Someus.

Original solution:

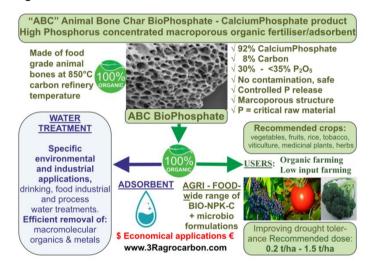
"3R" zero emission pyroylsis technology and 3R-BioPhosphate products: an unique business opportunity

The product:

https://nutriman.net/farmerplatform/product/id_192

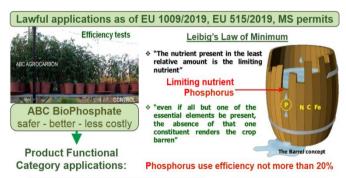
The technology:

https://nutriman.net/farmer-platform/technology/id_193



Phosphate is critical raw material as of EU (2017) 490. Phosphorus cannot be replaced. **No Phosphorus = no life = no agriculture** = no food = the thing of cheap fertiliser is already history.

Converting food grade animal bone grist by-products into high added value pure and concentrated ABC-BioPhosphate organic/low input fertilizer. The goal is to substitute the cadmium/uranium contaminated chemosynthetic mineral phosphate fertilizers and make wide range of high added value applications. Specific 3R zero emission technology applied with 850°C material core processing temperature.



PFC1: Solid organic fertilizer
PFC2: Liming material
PFC3: Organic soil improver
PFC4: Growing medium
PFC5: Agronomic additive inhibitor
PFC6: Plant biostimulant-microbial/non microbial
PFC7: Fertilizing product blend

Lawful applications meet

√ EU1009/2019

√ EU 515/2019

√ EU/MS - US - AU permits

√ Producer Responsibility

www.3Ragrocarbon.com





The 3R zero emission pyrolysis is key enabling technology and its recovered innovative BioPhosphate products targeting commercial implementation in 2020. The focus is on cheapening the Phosphorus value chain by valorisation of unexploited biomass cattle bones in economical industrial scale, while improving material safety and P supply security (Authority permit no. 6300/13393-2/2019)

The project is based on large scale EU Commission co-financed RTD projects, which have been coordinated and implemented by EU Edward Someus past decade (trusted references). Environmental and food safety impacts targeted, such as elimination of cadmium and uranium contamination from food chain and improvement of food safety for less cost, which impacts are well defined and integrated into the market driven business model and systematically measured. The project demonstrating sustainable growth of the business to deliver impact through a promising and realistic business planning, and a significant growth potential at a relatively modest capital investment, with a realistic exit strategy capable of supporting financial and non-financial returns.

Welcome to ask questions and make business contacts.

Contact

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"3R" zero emission carbon refinery technology application map 2020 for flexible reductive thermal processing in any range up to <850°C material core temperature.



High temperature reductive thermal processing <850°Celsius material core temperature processed Pyrolysis - Autothermal Carbonization



Activated Carbon Virgin & Regeneration-ADSORBENTS ABC-BioPhosphate Animal Bone Char BIOPHOSHATE High C content Plant BioChar BIOCHAR

Special adsorbents and surface modified substances. Biofertilisers. Green energy.

 $www. 3 Rag ro carbon. com\\biochar@ 3 Rag ro carbon. com$



... and many other application areas, incl. petroleum jelly, coatings, preservative...

Torrefaction Torrified Biomass BIO-ENERGY

Browncoal processing RECOVERED ANTHRACITE Pyrolysis oil refinery Renewable energy GREEN ELECTRICITY

Converting Trash into Cash. Converting unexploited biomass into \$ values. Low temperature reductive thermal processing <450°Celsius material core temperature processed Torrefaction - Thermal Desorption

