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Singapore's Verde AgriTech secures patent for advanced fertilizer production technology combining Glauconitic Siltstone and beneficial microbes

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Verde AgriTech Ltd., a specialty multi-nutrient potassium fertilizer innovator offering tailored solutions to support sustainable farming practices, has announced that its subsidiary Verde Fertilizantes LTDA has been granted a Brazilian pate for its industrial process, which produces powdered, granulated, or microgranulated mineral fertilizers enriched with biological additives; in addition, the product produced from this process is also protected under this patent.

The patent, granted by Brazilâ??s National Institute of Industrial Property (INPI) under the Ministry of Economy, covers a process that combines glauconitic siltstone â?? a sedimentary rock composed of silt-sized iron-potassium phyllosilicate minerals â?? with beneficial microorganisms, advancing sustainable fertilizer technology and strengthening Verdeâ??s intellectual property (IP) portfolio.

Cristiano Veloso, CEO and Founder said,Â â??Fertilizers remain the most important technology for boosting agricultural productivity, and continuous innovation is essential to meeting farmersâ?? evolving needs. With growing demand for sustainable and biological solutions, this patent represents a breakthrough by applying diverse microorganisms with glauconitic siltstone to improve soil and plant health, enhance agricultural productivity, and reduce chemical inputs, all while being cost effective.â?•

The patented process enables the production of powdered, granulated, or microgranulated fertilizers by combining glauconitic siltstone with beneficial microorganisms through industrial spraying techniques. Unlike conventional fertilizer manufacturing, this innovation eliminates the drying stage, reducing production costs while preserving viability of beneficial microorganisms

for up to 180 days. This allows the integration of a wide range of bacteria and fungi enhancing sustainable agriculture practices through:

- **nitrogen fixation** - process by which certain microorganisms convert atmospheric nitrogen gas into forms usable by plants;
- **phosphate solubilization** â?? the conversion of insoluble forms of phosphorus into soluble forms that plants can absorb;
- **biocontrol** â?? the use of living organisms to suppress pests, weeds, or plant diseases; and
- **growth promotion**, creating a differentiated offering for the global fertilizer market.

This patent positions Verde at the forefront of agricultural innovation and allows the company to capitalize on the growing demand for sustainable agriculture solutions. Verde remains dedicated to delivering advanced fertilizer technologies that meet farmersâ?? needs while supporting long-term business growth.

The Company holds five patents in Brazil with INPI and has three patent applications pending.

Singapore headquartered, Verde AgriTech is dedicated to advancing sustainable agriculture through the innovation of specialty multi nutrient potassium fertilizers. With the mission to increase agricultural productivity, enhance soil health, and significantly contribute to environmental sustainability. Utilizing its unique position in Brazil, Verde AgriTech harness proprietary technologies to develop solutions that not only meet the immediate needs of farmers but also address global challenges such as food security and climate change.