

Technology of fertilizers production from sewage



Technology of fertilizers production from sewage sludge in the capsule process

Technology description

This technology includes a multi-stage process of drying municipal sewage sludge through mixing and leads to the production, through the process of capsulation, of a granulated fertilizer - sewage sludge sealed in a hydrogel carrier, protected against dusting and clumping due to a biopolymer coating. The use of sodium alginate gives it hydrogel properties and thus the ability to store and release water.

The obtained product has feature of the slowed-down release of ingredients, which can be used to enrich the soil with nutrients, to improve water relations in the soil and to improve the soil structure.

The product is adapted to being spread by spreaders and seeders. Sewage sludge is legally waste. Treatment plants incur costs related to its utilization or collection by specialized entities, as sludge cannot be stored due to its flammable properties. A partial solution to the problem is technologies for processing sludge into compost. However, such a product cannot be transported over long distances and its spreading is difficult.

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The advantages of the technology

The technology of producing fertilizers from sewage sludge in the capsule process enables the production of a fertilizer with a durable consistency. The technology will enable the investor to obtain revenue from the collection of the deposit and from the sale of the finished product. The product is easy to transport and store. The process is economically efficient and the installation can be scaled and the performance tailored to the needs of the investor. The product is widely used in the market, especially in agriculture and land regeneration.

The product is devoid of intense odour, has a durable consistency and is adapted to spreading by typical devices. The technology enables the creation of any mix and any consistency, providing a product that can be packaged and adapted to any distribution channel. The process is economically efficient and the installation can be scaled, providing an output tailored to the needs of the investor.



Application

Products obtained from sewage sludge in the capsule process can be widely used on the market, especially in agriculture and land regeneration. On the other hand, this technology is an interesting solution for both wastewater treatment plants and investors - giving the opportunity to obtain revenue from the collection of sludge, and from the sale of the finished product.



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