

AGRICULTURAL COMPOSITIONS CONTAINING MARINE BACTERIA ISOLATE



Invention Description:

The invention involves the use of bacterial mixtures prepared from beneficial bacteria isolated from seawater; intended for use as microbial fertilizers, biopesticides, or biostimulants.



Applicant İstanbul University



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Country	Application Number	Application Status
Türkiye	2017/23318	Registered/Licensed

Benefits

- Marine bacteria, through the adaptation they develop according to their micro-geography, exhibit effects that improve plants and support their development without disrupting the ecological balance.
- The product is compliant with the Green Deal and does not contain any components that would cause residue problems in the soil after use. Continuous use contributes to soil rehabilitation, thereby supporting sustainable agriculture.
- The bacterial mixtures involved in the invention are tolerant to salinity and resistant to heavy metals, providing advantages for use in soils with high salt concentrations or those exposed to chemicals.
- The high enzyme production capacity of the bacteria in the mixture enhances plant usability and offers advantages in plant protection.
- The products are locally sourced, nature-based, high-value and environmentally friendly. The ability to complete the production processes without the need for imported raw materials provides the advantage of on-site manufacturing.

Market Information

The biostimulant market size was \$2.8 billion in 2022. It is projected to grow to \$5.2 billion by 2028, with a CAGR of 10.9%. The bacterial segment of the biostimulant market is showing rapid growth. The inclusion of the invention in the bacterial segment of biostimulants indicates a high commercial potential.

Applications

The products are suitable for use by all producers engaged in traditional agriculture, as well as organic farming, protected agriculture (greenhouses), and soilless farming. Furthermore, Companies producing value-added products for sustainable agriculture can also use them.



Target Demographic

All agriculture-focused companies operating under the specified NACE codes can be identified as the target audience.



Nace Code

Usage

46.75.03

Wholesale trade of animal or plant fertilizers (conducted indoors)

46.75.05

Wholesale trade of animal or plant fertilizers (conducted outdoors)

01.13.20

Cultivation of edible fruit vegetables (cucumbers, gherkins, bell peppers, melons, watermelons, squash varieties, tomatoes, peppers, eggplants, etc.)

Commercialization Expectation

The invention owned by İstanbul University was licensed to BİYOTEK 15 on December 30, 2022. BİYOTEK 15 also holds sublicensing rights. Sublicensing may be conducted for the production of related products and/or to increase existing production capacity. Additionally, industry and industry-collaboration projects may be used as a method. It is aimed to accelerate the commercialization process through potential collaborations supported by national/international funding sources and the industrial partner's own resources.

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