OFFER TECHNO

New rhizospheric bacteria-based biostimulant

biostimulant / biofertilizer / microorganism / rhizospheric bacteria / agricultural input / organic farming

CONTEXT

Research interest in the development of microbial biostimulants has grown strongly in recent years. Indeed, these solutions increase the bioavailability of nutrients (N, P, S, K, Ca, Mg...) and/or improve plant growth by limiting the use of mineral fertilizers.

DESCRIPTION

Recently, researchers of the Agronomy & Environment laboratory at Nancy (France) have identified two bacterial strains of the rhizosphere capable of efficiently mineralizing organic nitrogen (N) and sulphur (S) in the soil and stimulating the plant's root growth.

The strains were selected for their ability to increase enzymatic activities involved in the mineralization of organic forms of N and S in soil. These are protease/aminopeptidase activities for N and arylsulfatases for S.

The inoculation of an agricultural soil shows a significant stimulation of these enzymatic activities allowing the increase of mineral nitrogen availability (in nitrate forms). On corn, the strains showed a stimulating effect on the root growth of plants at the 1-2 leaf stage.

COMPETITIVE ADVANTAGES

- **Stimulating effect on root growth in the early stages of plant development (starter effect)**
- **Improvement of the biological functioning of the soil and in particular of the decomposition and mineralization processes of organic matter**
- **Increased bioavailability of mineral nitrogen in soil**

Markets & applications

Agriculture - soil & plant input sector:

- Use as biostimulant in field crops (straw cereals, corn...) or in glasshouse crops (market gardening)

Development stage

Validation of the biostimulant effect on root growth of corn plants under controlled conditions

Validation of the activating effect of biological and biofertilizing functioning on bare soil

Research team

Laboratory Agronomy & Environment
University of Lorraine - INRA

Target partnership

Co-development with a company

CONTACT-US

Yannick CAVALIER
Business Development Manager
+33 (0)7 71 43 86 09
yannick.cavalier@sayens.fr