



SUSTAINABILITY



TRUST



QUALITY

BIOSTIMULANTS

MAKING THE DIFFERENCE

BOOSTING PLANT GROWTH WHILE MAINTAINING SUSTAINABLE AGRICULTURE

SGS

World population is rising. The EU green deal requires significant reductions in the use and risk of chemical pesticides, as well as the use of fertilizers. New solutions need to be developed and introduced to protect crop yields and feed the world.

Biostimulants, such as naturally derived additives, bacteria or microbial inoculants, biochemical materials, amino acids, humic-, fulvic acids and plant extracts, are new targets.

EU Regulation 2019/1009 on making fertilizers available on the EU market defines “biostimulant” as a product that stimulates plant nutrition processes independently of the product’s nutrient content with the sole aim of improving one or more of the following characteristics of the plant or the plant rhizosphere:

- Nutrient use efficiency
- Tolerance to abiotic stress
- Quality traits
- Availability of confined nutrients in soil or rhizosphere

BIOSTIMULANTS AND SUSTAINABLE AGRICULTURE

Faced with the challenge of climate change, conventional plants are not adapted to survive under climatic extremes such as high soil salinity, drought, higher temperatures or frost conditions. To cope with abiotic stress, plants can initiate a number of molecular, cellular and physiological changes to respond and adapt to such stresses. However, biostimulant products can support plant resilience under abiotic stress and also enhance quality attributes such as color, fruit seeding, storage behavior and sugar content. This may contribute to making agriculture more sustainable and resilient.

The major benefit of biostimulants in the rooting zone is related to better nutrient uptake, lower fertilizer rates, less leaching/run off of fertilizer compounds, and soil erosion. The advantage is that healthier soil can retain better and more nutrients and water for the plant.

SGS BIOSTIMULANT SOLUTIONS

SGS protects your investment in new product Research & Development (R&D) and supports your market entry.

Testing of efficiency and benefits

- SGS facilities and operations in the EU are GEP certified and EPPO standards apply

From screening to pan EU regulatory field trials

- Testing in growth chambers, R&D greenhouses, under protected or open field conditions
- A network of operations/partners all over EU

Demonstration trials

- Under real farming conditions on larger plot sizes

Seed treatment development

- Treatment, dose/inoculum verification, storage/shelf life, dust off, flowability, germination, seed sample logistics

Product compatibility testing

- Microbial inoculum against commercially available chemical pesticides, chemicals and dyes, as well as tank mix

Analysis in microbiology

- Strain characterization and identification, purity and number of colonies forming units in product and treated seeds. Absence of harmful organisms

Yield determination

- Direct and indirect measures of yield in several crops

Crop quality measures

- Resilience against abiotic and biotic stress
- Nutrient content and composition
- Storage behavior, firmness, taint, taste and food processing

Analytical support

- State of the art contaminant, food and feed testing laboratories

Product chemistry

- Phys/chem property testing
- Content determination/impurity analysis



5-batch analysis

- Active ingredient and impurities
- Microbial and chemical actives

Our unrivaled network of experts is industry-trusted, providing a depth of knowledge to guide clients and experience that exceeds expectations at every turn.

TECHNOLOGY & INNOVATION




Innovation is at the heart of our business. New technologies deliver knowledge, insight, transparency and efficiency for our customers.

SGS Digicomply

Transform the big data of compliance information into user-friendly actionable knowledge.

SGS BENEFITS

SGS is the world’s leading inspection, verification, testing and certification company. We strive to deliver outstanding value at every step of your project by providing:

-  Global network
-  State-of-the-art laboratories
-  Technical competence

CONTACT US

 seed.crop@sgs.com

 www.sgs.com

 [SGS Agriculture & Food](#)

WHEN YOU NEED TO BE SURE

SGS