



PROTECTION



EXPERTISE

BIOSTIMULANTS AND BIOPESTICIDES

MAKING THE DIFFERENCE

EXPERTISE IN PRODUCT DEVELOPMENT



SUSTAINABILITY

SGS

SGS facilitates the development and registration of new biopesticide and biostimulant products that are required principally in Europe. The methodologies applied in this service can also be adapted to global destination market requirements.

In the EU, there are currently no harmonized regulations for biopesticide and biostimulant products. Each member state has its own regulations, and while there may be similarities, every country is different. Our experts, based across Europe, can advise clients on the most appropriate qualification route for a new product and develop the relevant methodologies.

INTEGRATED PEST MANAGEMENT

Like any agrochemical product, biopesticides and biostimulants should be developed as part of an integrated pest management (IPM) program. Our trials mirror the conditions of an IPM program to demonstrate a biopesticide's performance when correctly applied.

ROUTE TO MARKET

Overall, it can take two to three years to fully develop a new product. There are two key phases, registration of the active agent and approval of the formulation. Each product must undergo the following studies:

- Toxicology
- Effect on non-target organisms
- Product identity/chemistry
- Shelf life
- Efficacy
- Method development/validation

Though each study will be unique, efficacy trials must cover two full seasons, and shelf life testing will take a minimum of one year. Accelerated shelf life studies are available, but frequently are not acceptable to regulators.



To support this growing industry, applications for new registrations can benefit from a fast-track scheme. However, this only speeds an application once it has been lodged with the relevant authority. It does not shorten the research and development and field trials phase.

FIELD TRIALS

Every field trial we undertake is designed to meet the specific requirements of a project, based on established trial guidelines and incorporating sufficient replicates. However, the novelty of biopesticide and biostimulant products means they are unusual. We are aware that to accommodate a lack of background data and non-comparability, these trials require extra attention and monitoring.

At the site selection stage, we can take samples to establish how a location is resourced regarding organic materials and chemical composition before progressing to trial. Subsequent field preparation could mean creating a deficiency to allow trial products to perform. We can also accommodate particular application methods, which may vary according to the product.

Monitoring, sampling and testing

To ensure data capture at the level of detail required, we focus on regular monitoring in the field and documentation of all findings; taking a more research based approach to delivering results. Soil/plant samples are taken at different stages for testing, evaluation, and comparison against the samples from a control group and/or traditional farming practice.

Assessment methods

In addition to standard assessments according to EPPO guidelines, we also monitor the metabolic profile of plants using a 'greenseeker', a hand held device that measures a plant's chlorophyll performance. The results derived from this test are used to determine the trial's next steps.





WHAT ARE BIOPESTICIDES AND BIOSTIMULANTS?

In a world increasingly concerned with the environmental impact of the chemicals included in plant protection products and fertilisers, there is a growing awareness of the potential of natural agents to fulfill their role.

Biostimulants are organic and work to protect a crop by stimulating natural processes, thereby improving nutrient uptake and efficiency. These products can be applied at any stage of growth, even flowering, to increase crop yields.

Biopesticides are certain types of pesticides derived from such natural materials as animals, plants, bacteria, and certain minerals.

FORMULATION AND PACKAGING ADVICE

The best products on the market are only as good as their formulation and shelf life. Biological product performance is often affected by storage conditions (e.g. shipment, handling, on the shelf). We have in-house formulation experts who, after evaluation of stability and shelf life during the research and development phase, can advise clients on the best ways to formulate, package and label a product.

TECHNOLOGY & INNOVATION

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

MORE: Facilitate and ease the execution of field trials by ensuring clear and consistent data on protocols, treatments and assessments, MORE is an internal tool that manages communications, supports delivery, raises alerts and enables effective monitoring.

SGS BENEFITS

SGS is the world's leading inspection, verification, testing and certification company. SGS is recognized as the global benchmark for quality and integrity. With more than 95,000 employees, SGS operates a network of over 2,400 offices and laboratories around the world.

-  Global network
-  State-of-the-art technology
-  Rapid turnaround time
-  Harmonized procedures
-  Data Management and Reporting
-  Customized service
-  Technical Competence



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WHEN YOU NEED TO BE SURE

