

Biocontrol Agents

These include:

- Invertebrate Biocontrol Agents (IBCA) – Insects, mites and entomopathogenic nematodes
- Microbial Biocontrol Agents (MBCAs) – bacteria, fungi and viruses (and beneficial soil micro-organisms).

Trials are also conducted on Insect pheromones/semiochemicals.

SynTech has conducted particularly extensive Biocontrol programs in the US, Latin America (Argentina, Costa Rica and Chile) and Europe (Spain, Portugal, France).

Crops and targets have included pests and diseases in Corn, Rice, Citrus, Soft Fruit, Bananas, Tomatoes, Lettuces, Cucumbers, Peppers, Strawberries, Artichokes. SynTech has tested: *Bacillus thuringiensis*, *B. subtilis*, *Trichoderma*, yeasts and other fungi, semiochemicals and other natural products (pheromones, attractants, repellents).

Studies conducted include screening and evaluation in laboratories/glasshouses/growth chambers and trials at SynTech's field stations and in commercial fields.

Techniques include syringe application and chemigation with tailored irrigation systems.

Regulatory Services

Regulatory requirements for Biocontrol agents and Biostimulants differ considerably from agrochemicals and study protocols need to be adapted to the particular product or active ingredient in efficacy trials.

SynTech Research Regulatory services are provided by our teams worldwide and particularly by the 50 regulatory experts of GAB Consulting, part of the SynTech Group. GAB has particular experience in the preparation of biocontrol agent submissions and work with the EU on development of data requirements e.g. for microorganisms.



Biostimulant and Biocontrol Services

A complete Lab-to-Farm service for biostimulant and biocontrol programs

For further information visit
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Biostimulant and Biocontrol services

SynTech Group's unparalleled 'Lab-to-Farm' service provides management and delivery of Biostimulant and Biocontrol programs during all stages of research, development and registration of these products. This includes efficacy trials using our worldwide network of field stations in over 30 countries, physical-chemical, toxicological and environmental tests, and regulatory advice, submissions and support from specialist teams.

Efficacy Services

Biostimulants

SynTech conducts all the studies required to determine where and how the potential product works, providing data and conclusions for clients to make robust claims in registration submissions and on product labels. Test types include yield and quality enhancement, improvement of abiotic stress tolerance, (drought, heat, light, salinity, wind), plant nutrition, early crop emergence, fruit setting, root system development and quality.

Appropriate techniques and testing protocols are designed, and studies conducted, on an extensive range of arable and horticultural crops. These include screening and evaluation in laboratories/glasshouses/growth chambers, trials at the field stations and in commercial fields.



SynTech's scientists have evaluated a variety of biostimulants for growth enhancement and quality improvement, particularly in Europe and the Americas, including on:

- Cereals and Soya (growth enhancement, drought resistance, resistance inducers, defence activators);
- Pome and Stone fruit and Vines (fruit quality, breaking dormancy, shelf life);
- Tomato, Lettuce, Cucumber, Peppers, Strawberries, Artichokes (flowering and growth enhancement, drought resistance, shelf life);
- Sugar cane (budding accelerator, resistance inducers, growth promoters and regulators, symbiotic inoculants, biofertilizers);
- Cotton (growth promoters and regulators, resistance inducers, biofertilizers).

Our Assessments include crop vigor, including effects at key crop development stages: early blooming, fruiting,

harvesting, crop development – height, stem diameter, tillering, leaf size.

Analyses include yield and quality: average weight, grading, size; nutritional value: protein, polyphenol, fatty acids, fibre content; Brix, acidity, starch, conservation (post-harvest): Ca⁺⁺ content, hardness, acidity.

Our Studies encompass crop nutrition (deficiency and efficiency in nutrient absorption and photosynthetic activity – SPAD/chlorophyll) and foliar analysis, including micro and macro element determination.

