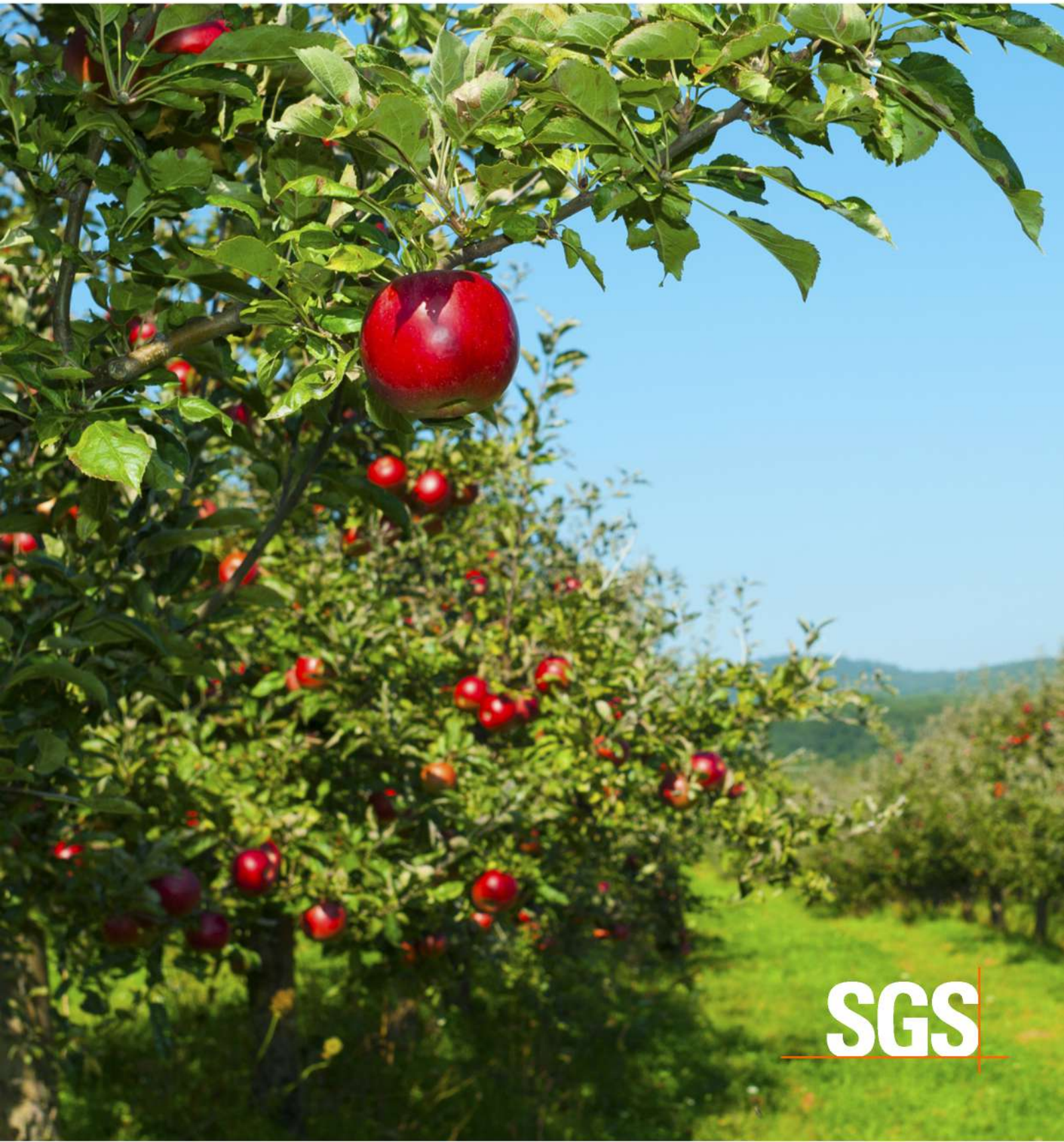
Biopesticides

Trusted. **I**ndependent. **C**ommitted.



Reduce your environmental impact and comply with the latest regulations.

At SGS, our biopesticide solution emcompasses:

Sustainable plant protection

Simplified route to market

Trial support

Comprehensive testing solutions

Expert-led development and validation

Healthier and more sustainable plant protection

The environmental impact of the chemicals in plant protection products (PPP) and fertilizers is of increasing concern. Hence, natural agents are now recognized as safer alternatives that have the potential to fulfill the same role within integrated pest management (IPM) programs.

Biopesticides

Biopesticides are a subset of pesticides derived from natural materials that originate from animals, plants, microorganisms and certain minerals. Indeed, more than 60% of all biopesticides contain microbial biological control agents (MBCAs).

EU Regulations

In the EU, biopesticides fall under Regulation (EC) No. 1107/2009 (pesticide law). In 2022, long-awaited amendments for this and several other regulations entered into force, providing clearer guidance and introducing more specific testing requirements for biopesticides, including microbials. These regulations include:

- Commission Regulation (EU) 2022/1439 amending regulation (EU) 283/2013: data requirements for active substances
- Commission Regulation (EU) 2022/1440 amending regulation (EU) 284/2013: data requirements for plant protection products
- Commission Regulation (EU) 2022/1441 amending Regulation (EU) No. 546/2011 enforcing the uniform principles and finally
- Commission Regulation (EU) 2022/1438 amending Annex II of Regulation (EC) No. 1107/2009 specifying the approval criteria.

Simplifying your route to market

Developing a new biopesticide product usually takes two to 10 years, but our experts facilitate the development and registration of new biopesticide products onto global markets.

Our expertise and global reach help you expedite this process, and will assist with the completion of relevant chapters within the registration dossier.

These include details surrounding your product's identity, characterization, impurities, shelf life, efficacy and effect on non-target organisms. Our methodologies comply with the requirements of global markets, meaning we'll get your products to market quickly, efficiently and with minimal hassle.

The amended regulations provide the option of registering your microbial biopesticide as a low-risk product, further facilitating your route to market. We work with regulatory consultants to ensure a testing regimen that is tailor-made for your requirements, thus saving your time and money.

Trial support, from start to finish

Demonstrate effective crop safety under realistic conditions, conduct exploratory and regulatory field trials at protected and open-field sites across Europe.

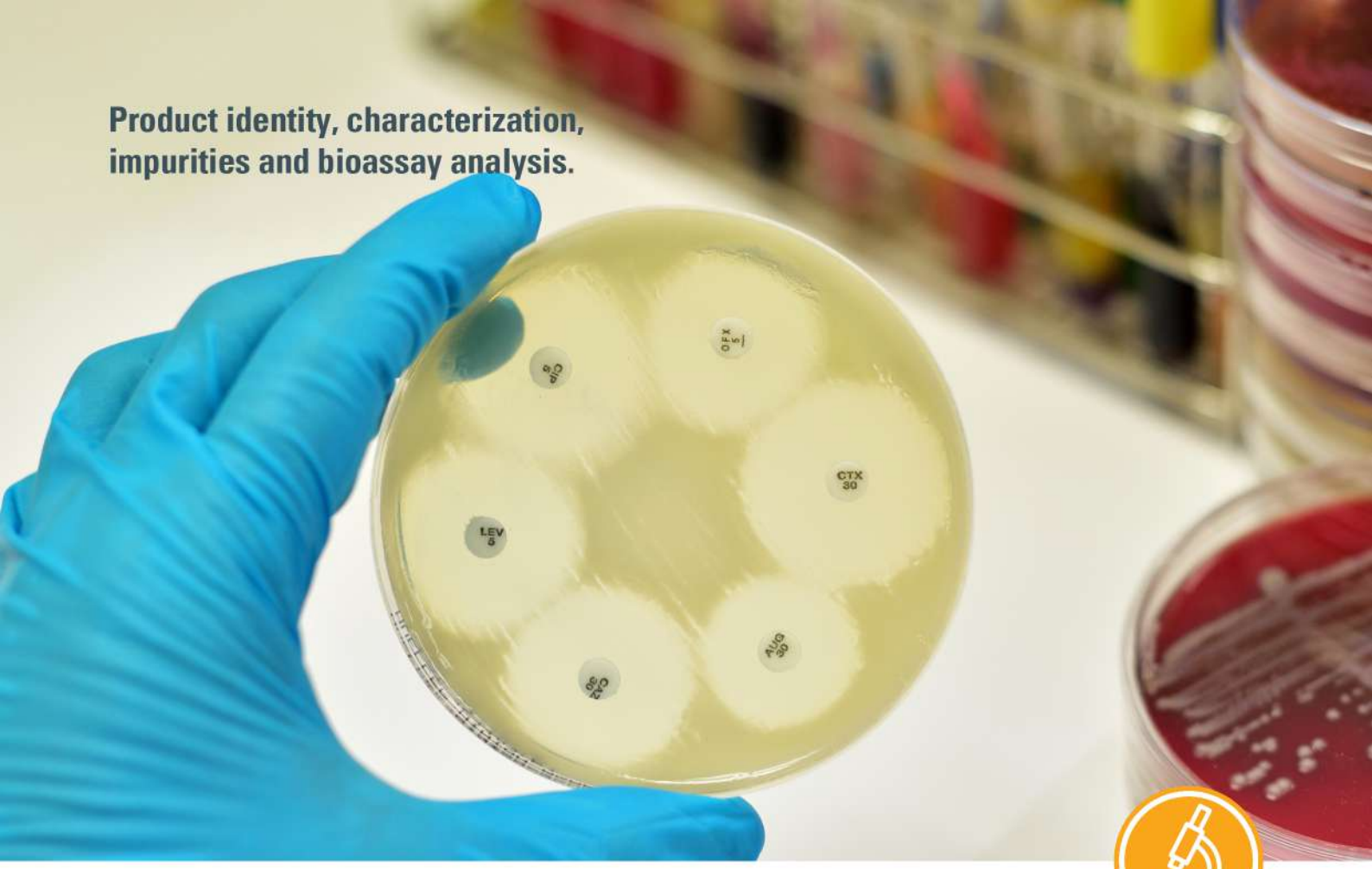
By following EPPO (European and Mediterranean Plant Protection Organization) guidance for low-risk substances, we reduce the number of field trials that biopesticide manufacturers need to carry out. Our protocols follow EPPO guidelines, but we can also customize them to your biopesticide product's specific nature and conditions.

Thanks to our pan-European network of field stations and vast experience, we can perform a wide range of trials. These cover most crops under different cropping conditions, using various biopesticide products including weed, insect, fungi and nematode controls.

In addition, we can carry out trials for different formulated products, from seed treatments and sprays to furrow applications; we also have experience running pheromone placement trials.

Biopesticide products are innovative and target specific organisms, following multiple modes of action. As we are applying living organisms, this makes biopesticides complex to handle, and it also means they lack significant background data and comparability studies.

Therefore, our experts conduct these trials with extra attention and closely monitor the studies from start to finish.



A full scope of testing solutions

Our dedicated testing services cover everything from screening under protected conditions in growth chambers or research and development (R&D) greenhouses to regulatory trials conducted under protected and/or open field conditions, environmental safety studies and various other product-related studies. Our experts will provide crucial support every step of the way, whatever your testing requirements.

For example, this includes product identity, characterization and impurities analysis – a major step in developing safe, effective biopesticides. Biopesticide manufacturers must characterize microbial biological control agents (MBCAs) at strain level, including potential toxic metabolites, and possible resistance to antimicrobial agents. Our dedicated microbiological analytical laboratories provide a wide range of analysis services. These include content analysis, 5-batch analysis, impurity profiling and screening for hazardous microbial contaminants. What's more, they can certify that toxic metabolites are within regulatory limits.

Biodiversity impact

Biopesticide manufacturers must consider risks relating to bees/pollinators, the soil microbial community and function, and organisms living in or on the soil in the risk assessment sections of the registration dossier. This is where our tailored testing services come in, allowing you to analyze non-target organism like pollinators and terrestrial and aquatic organisms.

A local presence with a global network, offering innovative, fully customizable solutions.

Expert-led method development and validation

Commission Regulation (EU) 2022/1439 amending regulation (EU) 284/2013 specifies methods for characterizing and validating the presence of biologically active ingredients in any pesticide product. Our analytical laboratories run method development and validation product studies for chemical (e.g., plant extracts) and microbial active (e.g., bacteria, fungi) ingredients, as well as for potential toxic metabolites. To assess environmental risk, we can also establish methods for testing non-target organisms, soil and water.

SGS is the world's leading inspection, verification, testing and certification company. We operate a global network of over 99,600 employees, with both on-the-ground experts and laboratory specialists working in state-of-the-art facilities.

Our local presence and global network offer the best of both worlds, blending regional expertise with the latest international best practices.
Our technical competence and customizable solutions enable biopesticide manufacturers to meet regulatory requirements, bring safe, effective products to market and meet their goals.

Trusted. Independent. Committed.

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When you need to be sure