

# UNLOCKING THE POTENTIAL OF BIOPESTICIDES

As part of our 2030 Commitments, CropLife Europe member companies are investing €4 billion into innovation in biopesticides. However, this financial investment alone will not be enough. An enabling regulatory environment and the adoption of incentives will be required to ensure that these innovative solutions can be fully developed and deployed to European farmers.

**If the regulatory framework was better implemented and strengthened with appropriate regulatory guidance, the EU could become a market more suitable for the development of biopesticides.**

Indeed, the EU Farm to Fork Strategy seeks to accelerate a paradigm shift for sustainable food production and consumption in the European Union and beyond.

And with nature as a starting point, we have more opportunities to develop crop protection products that have a much greater potential to be sustainable.

We need to remember, though, that while offering many benefits, biopesticides are not a one-to-one replacement for conventional pesticides. Together these solutions play an important role in building a bigger, more robust toolbox for farmers through Integrated Pest Management (IPM) practices.

## What are biopesticides?



Biopesticides are pesticides<sup>1</sup> of natural origin, either naturally occurring or synthetically derived.

## What kind of biopesticides exist?



- Semiochemicals – substances emitted by plants, animals and other organisms for communication purposes (e.g. pheromones, attractants/repellents)
- Biochemicals – substances originating from nature (e.g. plant extracts, animal extracts, neuropeptides)
- Micro-organism–(e.g. bacteria or viruses, such as *Bacillus thuringiensis*)

## What is the market size of biopesticides?

Global biopesticides market:



€3.5

BILLION IN 2020<sup>2</sup>

▼ FORECASTED

Global conventional pesticides market:



€62.4

BILLION IN 2025<sup>3</sup>

Global biopesticides market:



€17.1

BILLION IN 2031<sup>4</sup>

Global pesticides market:



€175

BILLION IN 2031<sup>5</sup>

## What factors do farmers consider when choosing to use a biopesticide?

### ADVANTAGES

- When used in combination with conventional pesticides, biopesticides contribute to overall reduced residue levels in crops, and provide an expected reduced environmental risk.
- Biopesticides are often more targeted towards the pest and diseases in question.
- Application of biopesticides helps deliver economically viable crop yields when used as a component of Integrated Pest Management programmes.
- While not a like-for-like substitute, biopesticides can help to reduce the use of chemical pesticides.

### CONSIDERATIONS

- As with conventional pesticides, for the biopesticide to be effective farmers need an exact identification of the pest or pathogen.
- Their efficacy is generally low when the disease pressure is high, so another product may be needed to fight off the disease.
- If the biopesticide fails to control or render the target incapable of reproduction, the surviving population can acquire a tolerance to the substance. Thus, there is a risk of the crop building resistance to the product.
- As with any product, proper training and full respect of the conditions of use of biopesticides is of critical importance.

## What's needed next?

To unlock the potential of biopesticides, and to meet the demands of our citizens and policymakers alike, our industry calls on the EU institutions to ensure the regulatory framework facilitates the placing of novel biopesticides on the market.

### More guidance documents

- Following the adapted data requirements on micro-organisms, we would encourage the European Commission to develop data requirements on biochemicals. This would help encourage development and use of new tools, while further enabling the future for biopesticides.
- Exciting new technologies such as peptides and fermentation products are being developed. But because of the lack of a clear regulatory pathway, these new innovations are not reaching the European market. Applicants are uncertain about the ability to secure registration in Europe, and EU farmers suffer because they are at a competitive disadvantage compared to other regions of the world.

### More expertise on biopesticides

- To boost scientific expertise within EU institutions and evaluating authorities – including within EFSA – we suggest creating a specific EU group in the Commission. With expert knowledge of biopesticides, this group would be equipped to enable improved considerations of agricultural innovation and regulatory pathways, as well as provide improved dialogue with applicants.
- We also encourage EU policymakers and legislators to keep Integrated Pest Management as the cornerstone of the Common Agricultural Policy and the Sustainable Use Directive. This will ensure that EU farmers have access to a wide range of complementary, safe, and innovative solutions - including biopesticides.

**CROPLIFE EUROPE IS A PARTNER IN THE GREEN TRANSFORMATION IN EUROPE.  
TOGETHER, LET'S MAKE BIOPESTICIDES PART OF THE SOLUTION.**

1 1107 /2009 Regulation <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32009R1107>

2 Dent, Michael, "Biostimulants and Biopesticides 2021-2031: Technologies, Markets and Forecasts - An overview of agricultural biologicals, including natural products, semiochemicals and the plant microbiome," IDTechEx, ISBN 9781913899066. Available here: <https://www.idtechex.com/en/research-report/biostimulants-and-biopesticides-2021-2031-technologies-markets-and-forecasts/773>. NB: Figures originally cited in USD; EUR equivalents provided.

3 Ibid.

4 "Market Study on Pesticides: Popularity of Bio-pesticides to Rise Rapidly Over Coming Years", Persistence Market Research, 8 November 2021. Available here: <https://www.persistencemarketresearch.com/market-research/pesticides-market.asp>. NB: Figures originally cited in USD; EUR equivalents provided.

5 Ibid.