BIOPESTICIDES:
A CHANGING REGULATORY LANDSCAPE

fera | BioPesticides

WORLD-CLASS FACILITIES AND **CAPABILITIES**

BIOPESTICIDES HAVE **HUGE POTENTIAL**

Biopesticides have huge potential. These naturally occurring substances and micro-organisms offer a wide range of safe and sustainable tools to help rebalance pests or disease populations in food production.

Politically, environmentally, economically, and socially, biopesticides tick many boxes. Yet, until recently, the uptake of many of these crop protection products have been slow. But that is about to change.

For decades, scientists, governments, regulators, and governing bodies have been battling to find the right balance within their regulations and registration frameworks, which has been an unenviable task. Biopesticides are a complex array of semiochemicals, natural substances and microbials – all quite different to the chemical solutions that our current regulatory systems were designed to deal with.

Relevant authorities have needed to develop robust systems and processes, based on thorough scientific understanding, to assess each categories' pathogenicity and infectivity, their metabolites, their persistence post application, and any potential to transfer antimicrobial resistance on to other organisms.

It's been a long journey involving many knowledgeable individuals and their respective organisations but recently we've hit two major milestones – the marathon's finish line is in sight!

In October 2022, the European Commission arrived at the 'requirements mechanism' that many of us have been waiting for.

It adopted new rules designed to approve new biopesticide agents and authorise new biopesticide products more effectively and efficiently. The new rules come into effect in November 2022.

Meanwhile, the OECD has been developing the delivery mechanisms, the 'how-to' part of the equation. In September, the OECD Microbial Pesticides Group met to develop, agree, and begin to implement, a work plan to improve current test guidelines for microbial pesticides. It means we're well on our way towards testing which reflects the unique properties of biopesticides and cutting the unnecessary costs associated with some of the tests designed for traditional pesticides, which are frankly not relevant for some biologicals.

For those working in the development of these sustainable solutions, reaching these two milestones marks a huge step forward.

WORLD-CLASS FACILITIES AND CAPABILITIES

Not only does it give the biopesticide industry confidence and clarity, but it will also help attract investment. Biopesticides, by their very nature are niche, often only focused on controlling one pest species. In terms of their environmental profile, this is a distinct advantage, but it does limit their scope across different crops and restrict potential market size. As we move to frameworks that reflect this nuance of biopesticides, it makes many more projects viable for manufacturers and those that invest in them.

In the not-too-distant future – as we look towards shorter timeframes for the approval of new products - farmers will have many more, much needed, pest control tools in the armoury.

Despite the broad suite of approaches farmers have adopted under the umbrella of integrated pest management (IPM), many have to rely on a shrinking range of pesticides which has inevitably increased selection pressure and led to wide-scale resistance within insect populations. At the same time, climate change is increasing pest pressure, threatening both the quantity and quality of crops. With a range of biopesticides at their disposal, farmers will be better placed to deal with these challenges and meet political aims to reduce pesticide use.

Back in 2020 the Farm to Fork strategy set a target to reduce chemical pesticide use by 50% by 2030. Even though the UK has left the EU, there are clear indications that this remains a domestic objective.

The 25-year Environment Plan, for example, explicitly mentions reducing pesticide use through the Sustainable Farming Incentive. It's interesting to note that the wording surrounding calls to participate in Defra's Test and Trial of the IPM standard, includes biological tools – an indication that there is recognition of biopesticides potential here too.

After 25 years working with biopesticides, I couldn't let this turning point go unnoticed. It's truly exciting to be on the cusp of a new era. To all those involved in getting us to this place – thank you!

Dr. Aoife Dillon,
Crop Protection
Principal Scientist