

Briefing - Will the Commission's plan to fast-track biocontrol miss the mark for pesticide reductions?

PAN Europe

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Summary

The European Commission's Vision for Agriculture and Food proposes easing market access for biological control substances (biocontrol). PAN Europe welcomes more capacity for biocontrol risk assessment and optimised approval procedures to foster their availability. Biocontrol is an important alternative enabling the phasing out of harmful pesticides. However, narratives claiming that synthetic pesticides are indispensable, that alternatives are currently missing, or that biocontrol can simply replace other pesticides one-for-one are misleading and risk delaying real change. A real transition away from harmful pesticides is not about swapping products; it is about transforming systems. That means embedding biocontrol within Integrated Pest Management (IPM) strategies that prioritise prevention, soil health, biodiversity, and ecosystem resilience, all supported by farmer training and advisory networks.

As more synthetic pesticides come up for re-evaluation, growing evidence shows that many fail Europe's own safety standards for human health and the environment. Yet every proposed ban faces fierce resistance under a familiar refrain: "There are no alternatives." [1]. This narrative, claiming that "pesticides are indispensable" is nothing new. It has been repeated for decades, serving as a shield for the pesticide industry lobby to defend their toxic substances, with the calculated aim of deregulating the bans of synthetic pesticides.

The Commission's new plan to accelerate biocontrol approvals announced in the Vision for Agriculture and Food is, in part, a response to that pressure [2]. In its recent Call for Evidence on food and feed safety, the Commission echoed the narrative: "Farmers face a shrinking toolbox as older products lose authorisation and new alternatives—particularly biopesticides—are slow to reach the market." [3]

But are farmers really short of alternatives? The data tells a different story.

What are biocontrol substances, and what is at stake?

Biological control substances, often referred to as "biocontrol" or bio-pesticides, are normally derived from living organisms or naturally occurring compounds contrary to synthetic chemicals. Biocontrol products are natural or nature-identical substances. [4]. These include:

- Macroorganisms (such as insects, nematodes and mites);
- Microorganisms (such as bacteria, fungi and viruses) that target specific pests;
- Semiochemicals (like pheromones that disrupt pest behaviour), and
- Botanical substances with pesticidal properties.

Importantly, this excludes synthetic substances merely *similar* to natural compounds, as well as heavy metals and their salts.

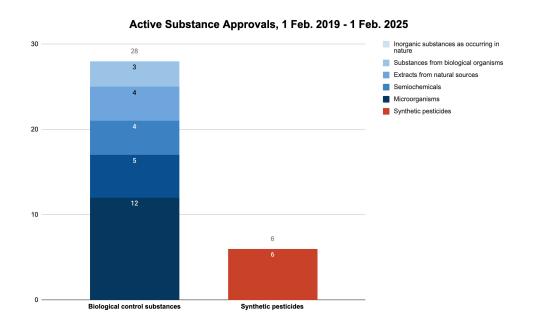
We welcome the Commission's intention to facilitate market access for biocontrol substances as faster approvals and better risk assessment are needed, specifically at the Member State level.

However, biocontrol agents must remain bound by the same standards for protecting human health and the environment as synthetic substances. Some natural substances can also be highly toxic for human health and the environment and therefore they should be assessed for their toxicity before they enter the market, through a step-wise approach. It must also be clarified that a wide range of biocontrol products is already approved in the EU.

The facts: biocontrol approvals are already surging

The rate of approvals for biocontrol substances has been significantly increasing over the past 6 years, and has now vastly overtaken the approval rates for conventional pesticides.

According to the latest updates of the European Commission, between 1 February 2019 to 1 February 2025, about 82% of approved active substances were biocontrol agents, of which almost half were microorganisms (see graph below), compared to 18% of synthetic pesticides. Overall, out of the 422 active substances currently approved at EU level, the International Biocontrol Manufacturers Association (IBMA) communicated to PAN Europe that approximately 180 are biocontrol, based on their definition.



Statistics were calculated from the following <u>list of active substances</u>. This dataset was sourced from the official <u>EU Pesticides Database</u>. Categories of biocontrol substances were sorted based on the Parliament's proposed definition of biocontrol in its own-initiative report.

This increase in approvals of active substances of biological origin was anticipated. During the previous mandate, the Commission had already taken steps to facilitate the approval of micro-organisms, notably by amending both the approval criteria and the data requirements. [5]

Biocontrol substances are also taken off the market at a much lower rate once approved, compared to chemical pesticides. Of the 156 active substances which are no longer approved since 1st May 2025, only 8 are microbial substances, of which none were expressly non-renewed because they did not fulfil the approval criteria to ensure human health and environmental protection.

Debunking the "Food Security" argument

Another false industry claim is that banning synthetic pesticides will lead to food insecurity. In fact, Eurostat data shows that EU crop yields have remained stable from 2013 to 2023 despite increasing bans on harmful pesticides. As underlined by scientists, the biggest risks to food security stem from climate change and the loss of biodiversity and ecosystem services, such as pollination and pest control [6]. EU-funded projects, studies and farmers across Europe have demonstrated that implementing IPM techniques, prioritising preventative measures, soil restoration and increased biodiversity and resilience, can reduce pesticides use by 50–80%, or completely phase out pesticides, while maintaining good yields and profits [7].

Biocontrol works within IPM

Biocontrol can only be truly effective when used as part of Integrated Pest Management (IPM), an agrosystem-wide approach, based on prevention, fostering soil health, biodiversity and ecosystem resilience. This involves combining the use of biocontrol substances with other methods, such as restoration of soil health, crop rotation, fostering habitats promoting natural pest control, cover crops, crop diversification, and the use of resistant varieties. Preventative measures, decreasing vulnerability of cropping systems to pests, are at the core of IPM. Only within such a comprehensive IPM strategy, biocontrol can be fully efficient. As a result, introducing biocontrol as a replacement for synthetic pesticides will only be effective if wider changes are made, based on implementation of a full IPM framework.

Farmers may feel reluctant to change their agricultural practices to adopt IPM and biocontrol methods due to concerns about effectiveness, cost, and the potential for unintended consequences, leading them to stay with chemical pesticides for as long as possible.

How can Member States address barriers to the implementation of IPM and the uptake of biocontrol solutions?

Agricultural advisors' and farmers' lack of knowledge and awareness of IPM methods, including biocontrol, is a key barrier to enforcement of the Sustainable Use of Pesticides Directive 2009/128/EC (SUD). Although mandatory under the SUD since 2014, Member States have been failing to implement IPM. The need for better enforcement of legislation is also an important demand of the Strategic dialogue on the future of EU agriculture (SDA) [8]. Farmers, as also stated by the SDA, should have an overview of clear and actionable on-farm obligations. Member states have not been providing farmers with the necessary framework and advisory systems to ensure they apply IPM, which requires always using the practices and products with lowest possible risk, and the least possible disruption to agro-ecosystems. The availability of dedicated training and

independent advisory services, an obligation of the SUD, is essential to provide farmers with better access to, and use of, knowledge on IPM, including biocontrol.

The dramatic failure of the CAP to support the transition needed forms another obstacle. With 80% of public funds going to 20% of EU farms, the CAP has been sponsoring practices harmful to the environment, human health and long-term food production. As also stressed by the strategic dialogue, the CAP should be urgently reformed, to allow it to financially support the transition towards sustainability in a targeted way. Linking CAP support to result-based pesticide reduction during a transition phase and to pesticide-free practices, should ensure the phase out of harmful pesticides [9].

The principles and recommendations of the strategic dialogue, released in a report in September 2024, precede the European Commission's Vision for Food and Agriculture. The Vision, published in February 2025, has since significantly weakened the ambitions, and backtracked on recommendations to foster the transition to sustainable practices and better enforce environmental legislation [10]. In line with that, the Commission's proposal for the CAP post 2027 represents a major setback, and fails to provide the framework needed to shift to ecologically sound practices. And yet, the broad strategic dialogue was initiated by President von der Leyen, as a platform to provide a 'very solid foundation for the development of a new vision for food and farming in Europe' [11]. The upcoming CAP negotiations now provide a key opportunity to change course, answer citizens' demands and create a supportive framework to shift to future-proof farming. The CAP should provide a truly sustainable future to farmers, support the phase out of harmful pesticides and protect our soils, water, biodiversity, long-term food security and health [12].

Will prioritising biocontrol lead to further delays in the re-assessment of synthetic substances?

A further and important potential downside of the new proposal is that Member States have limited resources dedicated to active substance risk assessment. Having a priority lane for biocontrol substances in the regulation, without strongly increasing regulatory authorities' financial resources, risks causing further delays in the risk assessment of chemical pesticides for which we already have evidence of toxicity. It is therefore essential that 1) prioritising the assessment of biocontrol is combined with a vast overall increase in capacity and resources for risk assessment, and 2) when assessments of synthetic pesticides are not timely carried out, this leads to a (temporary) withdrawal of the authorisation, but not to provide, as is currently the case, yearly extensions.

Conclusion

Increasing capacity for robust risk assessment and optimising authorisation processes, further fostering availability of biocontrol, is welcome. Biocontrol can play a vital role in reducing pesticide dependence, but its effectiveness depends on proper implementation within a comprehensive IPM framework, founded on preventative measures which decrease vulnerability against pests, backed by farmer knowledge, independent, high-expertise advisory support, and a regulatory environment that enforces sustainable practices. Without addressing these structural barriers, fast-tracking biocontrol risks becoming another symbolic measure, while the overuse of hazardous synthetic pesticides continues and delays in re-assessing toxic chemicals persist.

- [1] Why do EU countries block a ban on PFAS and Endocrine Disrupting pesticides? | PAN Europe
- [2] A Vision for Agriculture and Food
- [3] Call for evidence Food and feed safety simplification omnibus
- [4] https://ibma-global.org/wp-content/uploads/2025/02/What-is-biocontrol.pdf
- [5] Micro-organisms European Commission
- [6] <u>Eurostat data</u>, <u>Scientists support the EU's Green Deal and reject the unjustified argumentation against the Sustainable Use Regulation and the Nature Restoration Law</u>
- [7] United Nations (2017). Report of the Special Rapporteur on the right to food UN experts denounce 'myth' pesticides are necessary to feed the world, IPMWORKS project. Reducing pesticide use is a must for the future, Lechenet et al. (2017). Reducing pesticide use while preserving crop productivity and profitability on arable farms, Pecenka et al. (2021). IPM reduces insecticide applications by 95% while maintaining or enhancing crop yields through wild pollinator conservation, INRAE (2022). Protect crops by increasing plant diversity in agricultural areas, Magrach et al. (2022). Increasing crop richness and reducing field sizes provide higher yields to pollinator-dependent crops, Rodríguez et al. (2022). Aphid suppression by natural enemies in hedgerows surrounding greenhouses in southern Spain, Nandillon (2024). Pesticide use reduction: evolution of practices and technico-economic performances within farms of the DEPHY network, EARA (2025). Farmer-led Research on Europe's Full Productivity The Realities of Producing More and Better with Less, Nandillon et al. (2024). Crop management strategy redesign enables a reduction in reliance on pesticides: A diachronic approach based on a diversity of French commercial farms, Wäckers. From Pesticide Addiction to Ecological Integrated Pest Management [8] Strategic dialogue on the future of EU agriculture
- [9] CAP post 2027 an opportunity to answer citizens' demands and support farming beyond pesticides
- [10] Implementation of the outcome of the Strategic Dialogue on Agriculture requires ambitious policy action to reduce pesticides PAN Europe Recommendations for the EU Vision for Agriculture and Food, EU Vision for Agriculture and Food contains unscientific industry narrative on pesticides, Letter PAN Europe EU Vision for Agriculture and Food: Unscientific approach on Pesticides
- [11] <u>Ursula von der Leyen SDA</u>
- [12] <u>CAP post 2027 an opportunity to answer citizens' demands and support farming beyond pesticides</u>

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Pesticide Action Network (PAN Europe) is a network of NGOs working to reduce the use of hazardous pesticides and have them replaced with ecologically sound alternatives. We work to eliminate dependency on chemical pesticides and to support safe sustainable pest control methods. Our network brings together over 45 consumer, public health and environmental organisations and women's groups from across Europe.

