BRIEFING

#FOR HEALTH, BEES AND FARMERS

Pesticide Action Network Europe

DISPELLING OF KEY INDUSTRY MYTHS & MISLEADING STATEMENTS

1 The farmers' toolbox is shrinking, leaving farmers with fewer and fewer options to protect their crops

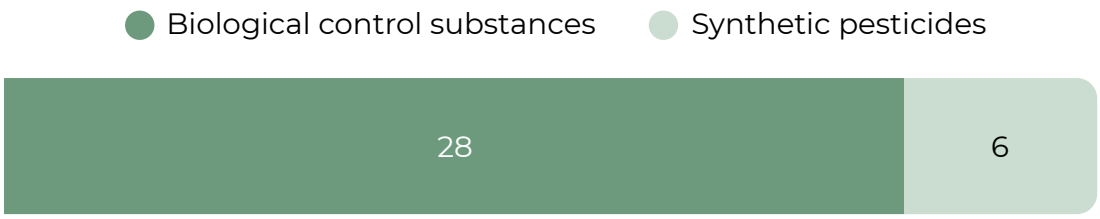
The total number of approved pesticide active substances has remained stable since 2011, regardless of the enforcement of the Pesticide Regulation (EC No 1107/2009), according to the official EU pesticide database.

427 → **421**

approved active substances in 2011 — *approved active substances in 2026*

2 No new synthetic substance approvals in recent years is a sign of blocked innovation

While it is true that no new conventional active substance was approved between 2019 and 2025, due to their toxicity and high risks for human health and the environment, many other new active substances were put on the market during that period. According to the EU pesticide database, the majority of approved active substances were biocontrol substances (82%), half of which were microorganisms, while 18% were synthetic pesticides (renewals):



There has been significant innovation in the development of biocontrol substances and the EU has committed to increase their market availability. According to the International Biocontrol Manufacturers Association (IBMA), approximately 180 of the active substances currently approved at the EU level are biological control substances.

3 The pesticide regulation is too strict

An investigation launched In 2019 by the PEST Committee in the European Parliament revealed that the current system of pesticide authorisation is failing to ensure a high level of protection. This is due both to shortcomings in the legislation itself and to its poor implementation.

Many substances remain on the market while they should be banned, including very problematic substances such as neurotoxic substances, substances toxic for reproduction (**Repr. 1B**), per- and polyfluoroalkyl substances also known as "forever chemicals" (**PFAS**), **azoles** (which are toxic themselves and contribute to antimicrobial resistance), succinate dehydrogenase inhibitors (**SDHIs**), etc. Furthermore, high risk pesticides often continue to be used under conditions that are supposed to prevent exposure to external environments such as closed greenhouses.

Active substances currently approved in the EU include:

45 *candidates for substitution*

30 *PFAS substances*

3 *Repr. 1B substances*

Many cases show that pesticide regulation is not properly implemented. This was demonstrated by the EU Court of Justice in the **Cypermethrin** case, whose renewal was considered unlawful. EU court of Justice also confirmed that **emergency authorisations** cannot be granted to bee-killing neonicotinoids and other pesticide substances banned on safety/environmental grounds. Despite this, Member States have historically granted emergency authorisations for EU-banned pesticide substances with the European Commission turning a blind eye, and they continue to do so to this day.

The risk assessment of pesticides is still incomplete and likely underestimates the risks pesticides pose to human health and the environment. Pesticide risk evaluations do not adequately assess **neurotoxicity**, despite growing evidence linking "Parkinson's pandemic" to pesticide exposure. Moreover, the risk assessment does not take into account **some exposure routes** (e.g. respiratory and dermal). Current environmental risk assessment fails to **effectively protect "non-target" arthropods** and evaluate critical impacts on vulnerable species such as **amphibians**. Additionally, it does not take into account chronic and the so-called "**cocktail effects**" posed by widespread **pesticide mixtures**.

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4 New substances that the industry is pushing have a better toxicological profile/are safer

Among the new conventional active substances currently awaiting approval, several raise significantsafety and environmental concerns. This includes PFAS, SDHIs, suspected human carcinogens and suspected reproductive toxicants (Category 2).



Fluazaindolizine
Fluoxapiprolin



Metyltetraprole

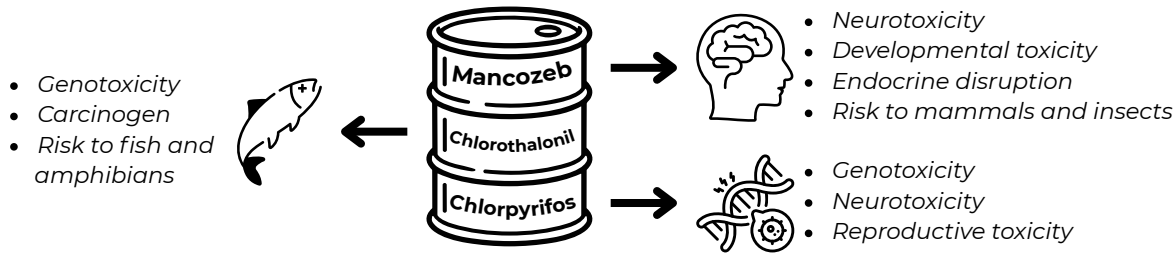


Pydiflumetofen

5 Periodic reassessment is just unnecessary bureaucracy - approved pesticides have already been assessed

Unnecessary bureaucracy often happens as a consequence of companies failing to provide adequate studies for their products, despite the EU law requirements. Lack of scientific evidence and incomplete dossiers hinder the completion of the assessment process and cause significant delays.

Experience shows that periodic review is essential. Since 2011, **the renewal procedure has led to the non-approval or withdrawal of 54 active substances due to identified risks to human health or the environment.** Notably, 31 of these substances had not previously been identified as candidates for substitution, meaning they were not initially considered among the 'more hazardous' pesticides requiring heightened scrutiny. Without periodic reassessment, the harmful properties of many of these substances would have remained undetected. Periodic reassessment also ensures that **the responsibility for demonstrating safety remains with the companies placing substances on the market**, consistent with the **polluter-pays principle**.



- *Genotoxicity*
- *Carcinogen*
- *Risk to fish and amphibians*

- *Neurotoxicity*
- *Developmental toxicity*
- *Endocrine disruption*
- *Risk to mammals and insects*

- *Genotoxicity*
- *Neurotoxicity*
- *Reproductive toxicity*

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6 EU approval of an active substance means national authorities do not need to consider newer scientific evidence

The fact that an active substance has been approved at EU level cannot create a presumption that all commercial formulations containing that substance are safe. Member States are responsible for the commercial authorisation of the final pesticide **formulations**, containing the active substance and **co-formulants**, which may increase the toxicity of the active substance, while interactions between different constituents may generate cumulative or synergistic effects. Moreover, the formulation evaluations must take into account the latest scientific findings and Member States must ensure that the formulations authorised do not cause long-term toxicity and carcinogenicity, in accordance with established case laws, including the Blaise ruling.

7 As pest resistance and pest pressure are growing, farmers need a diversity of chemical products with different modes of action

Farmers are encouraged to use higher quantities and more combinations of pesticides to overcome the problem of resistance. The excessive use of pesticides leads to soil degradation and elimination of natural enemies, further increasing crop vulnerability to pests and diseases. This creates a lucrative industrial loop also known as the '**pesticide treadmill**'.

SOLUTION

As pest resistance keeps increasing, the only solution is switching to integrated use of agronomic, mechanical, physical and biological alternatives, keeping chemical methods as the very last resort. This will also bring broader co-benefits such as reduced environmental and human health risks as well as long-term food security.

8 Pesticides are essential to ensure long-term food security

Transition towards pesticide-free food systems is not only possible but also necessary. Scientists stress that the biggest risks to food security stem from the loss of biodiversity and ecosystem services, which are significantly negatively affected by chemical pesticides. Climate change is expected to bring additional challenges such as changes in geographical distribution of pests and crops across Europe and increased pest pressure. Strong measures and coordination are therefore needed to prioritise and increase the resilience of existing cropping systems.

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9 Integrated Pest Management (IPM) has already been implemented, there is no more scope for further pesticide reduction

Despite the legal obligation to implement IPM by the Sustainable Use Directive (SUD) since 2014, the enforcement of IPM has been identified as weak by the European Court of Auditors. The lack of knowledge and awareness of IPM methods that truly reduce chemical input, from farmers and agricultural advisors, is one of the key implementation barriers. Importantly, introducing biocontrol as a replacement for synthetic pesticides can only be fully effective when integrated within a comprehensive IPM strategy. The Commission's IPM toolbox contains around 1,300 examples of practices and techniques focused on decreasing vulnerability of cropping systems to pests. Effective prevention should be the policy priority, starting with agronomic techniques, monitoring and mechanical methods, supported by independent advice.

10 Yields are at risk when pesticides get banned/in case of pesticide use reduction - there are no alternatives

Eurostat data shows that EU crop yields have remained stable from 2013 to 2023 despite increasing bans on harmful pesticides. Furthermore, research shows that farms employing IPM, agroecological principles or even going completely pesticide-free have been able to achieve comparable and, in some cases, superior yields compared to those of conventional farming. At the same time, they promote biodiversity, soil health and fertility, and prevent pest resistance. Organic agriculture is often criticized for having generally lower yields, neglecting all its other long term benefits. However, even organic yields can be significantly increased by good management practices and catch up to conventional systems over time.

11 Lower pesticide use necessarily means lower farm profitability

Profitability depends on both revenue and production costs, not on the yield alone. Lower pesticide use means reduced chemical input costs and in some cases increased revenue as well as income stability. In a study of 946 non-organic French arable farms, researchers estimated that pesticide use could be reduced by 42% without reducing productivity or profitability on 59% of the studied farms.

References

European Commission (2018). *Study supporting the REFIT Evaluation of the EU legislation on plant protection products and pesticides residues (Regulation (EC) No 1107/2009 and Regulation (EC) No 396/2005)*

European Commission (2026). *EU Pesticides Database*

European Court of Auditors (2020). *Sustainable use of plant protection products: limited progress in measuring and reducing risks*

European Parliament (2019). *European Parliament resolution of 16 January 2019 on the Union's authorisation procedure for pesticides (2018/2153(INI))*

Lechenet, M. et al. (2017). *Reducing pesticide use while preserving crop productivity and profitability on arable farms*

Le Sillon Belge (2026). *Selon l'Ibma, les agriculteurs ont besoin d'un accès plus rapide aux produits de biocontrôle*

Mora O., et al. (2023). *Agriculture européenne sans pesticides chimiques en 2050*

PAN Europe (2025). *Briefing - Will the Commission's plan to fast-track biocontrol miss the mark for pesticide reductions?*

PAN Europe (2025). *Comments on the call for evidence for simplification of the food and feed safety legislation*

PAN Europe (2025). *Farming beyond pesticides: success stories from the field*

PAN Europe (2026). *'Food and feed safety omnibus' threatens EU pesticide rules*

PAN Europe (2026). *Parliamentary hearing on Food & Feed Safety Omnibus: Misleading 'yield and substance loss' narrative to keep the most toxic pesticides*

PAN Europe (2026). *Pest resistance to pesticides: a dead-end street*

Omnibus is not simply deregulation - it perpetuates rather than addresses the real problem

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