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# LICENCE TO KILL

an EU guideline with far-reaching consequences

## Executive Summary



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Arthropods are the diverse range of insects and other small ‘invertebrate’ animals, such as spiders, beetles, millipedes, butterflies, crustaceans, and springtails, that account for over 80% of all known animal species on Earth. Although they are often perceived as ‘pests’, they are absolutely essential to life on Earth as we know it. Arthropods support the intricate balance of our environment by performing countless ecological functions, such as pollination, crop pest regulation, decomposition, nutrient cycling and soil aeration. They are the linchpins that sustain our ecosystems and the foundation of our food webs. Through their incredible diversity, they are a testament to the wonder of evolution and the richness of our natural world. Yet, industrial agricultural practices—especially pesticide use—have driven a dramatic decline in their populations and diversity, with insect biomass plummeting by 75% in Europe over the past 25 years. Even in nature reserves, the insect collapse occurred while—not coincidentally—cocktails of pesticides could be analysed.

In this report, PAN Europe critically analyses the EU’s 2002 “Guidance Document on Terrestrial Ecotoxicology”, which defines the agreed protection standards and methodology for assessing pesticide impacts on non-target arthropods (NTAs, i.e., the arthropods present in the environment that are not intended to be affected by pesticides). Our investigation reveals that for the past 22 years, the EU pesticide risk assessment system has not only failed to protect NTAs but has also actively contributed to their decline

**by enabling the approval of pesticides representing a "high risk" to these vital species.** This failure stems from the guidance document’s shockingly weak protection standards, unscientific methods, and flawed testing protocols, which were directly taken from the “ESCORT 2” report—a document drafted primarily by agrochemical industry representatives back in 2000.

Despite calls for revision from EU Member States as early as 2019, progress has been alarmingly slow, with the European Commission only granting EFSA the mandate to begin the revision process in June 2024. Meanwhile, EFSA has been laying the groundwork for the revision by developing its own approach to protecting environmental organisms. The Authority has been closely collaborating with a handful of like-minded experts, primarily from a unit at Wageningen University (Wageningen Environmental Research, formerly known as Alterra), along with subcontractors from the UK, Portugal, and Germany. Notably, another part of the same Wageningen unit is conducting similar work for the chemical industry (CEFIC), raising concerns about potential industry influence on EFSA’s proposals.

In a quest for transparency, PAN Europe filed 'access-to-documents' requests to uncover EFSA's preparatory work on the NTA guidance update, including preliminary reports from Wageningen University’s research project on NTAs. Our analysis reveals a troubling truth: if their approach is implemented, NTAs protection will amount to little more than smoke and



# Abstract

Europe is facing a catastrophic collapse of biodiversity, with arthropod populations plummeting at an alarming rate. In some regions, insect biomass has declined by an alarming 75% over approximately 25 years. The scientific evidence is clear: habitat loss, industrial agriculture, and rampant pesticide use are the primary drivers of this decline.

The EU Pesticide Regulation states that pesticide products should have no unacceptable effects on the environment and non-target species, taking into account their impact on biodiversity and ecosystems. In practice, however, pesticides that are highly toxic to insects and other bugs, and negatively impact biodiversity continue to be systematically approved in the European Union. This is possible due to an outdated and biased “Guidance Document”, which details how the impact of pesticides on 'non-target' arthropods should be assessed in the EU. Essentially, it allows for the killing of arthropods with almost no limits. Adopted in 2002 and never revised since, it was heavily influenced by industry representatives. Hence, the tests required for assessing the impact of pesticides on arthropods are very limited and insensitive, allowing the killing of as much as 50% of the population with the spraying of a single pesticide. Unscientific concepts such as "recovery" provide exceptions even for 100% mortality of test arthropods, based on the reasoning that 'they will come back'. In agriculture, the reality is that arthropods are exposed to cocktails of pesticide substances and other chemical stressors; this

is not taken into account in the assessment. Hence, hardly any 'arthropod' life can survive with this guideline and they have little chance of 'coming back'.

This flawed document has been instrumental in the dramatic collapse of arthropods we are currently witnessing in Europe. For many years it has been criticised by both scientists, as well as by EU Member States, without undergoing any revision. After years of delay, the European Commission has finally granted the European Food Safety Authority (EFSA) the green light to revise the Guidance Document in June 2024. However, undisclosed documents obtained by PAN Europe, show that EFSA and its partner, Wageningen University (WUR), have no intention of increasing the level of protection of insects or of biodiversity as a whole. New and even worse concepts are introduced that will - if they have their way - lead to an equally ineffective or even worse new guideline that allows to finish off the life that still manages to survive in agricultural fields and their surroundings. EFSA and WUR create a fantasy world that has little to do with reality. Their work on non-target arthropods is the opposite of what they claim it to be—transparent, scientific, and independent, while they actively undermine current EU rules to protect the environment. EFSA’s work on non-target arthropods should be put to a halt and a new panel of completely independent scientists and entomologists should be appointed to start developing a new guideline from scratch.





**mirrors. The updated guidance could pose significant risks that may even surpass the flaws of its 2002 predecessor**, allowing for the continued mass killing of these vital organisms through pesticide use.

On one hand, key shortcomings from the previous guidance remain, most notably the lack of scientific rigour. This includes a failure to account for the impact of pesticide cocktails on NTAs, even though NTAs are exposed to multiple pesticide substances in the environment. By only assessing the effects of exposure to a single pesticide substance on NTAs, the true extent of the harm inflicted on NTAs will remain grossly underestimated in the risk assessment of pesticides. Additionally, EFSA and WUR continue to rely on the discredited concept of “recovery”, which is used to justify a high level of mortality, as long as there are indications that the population will bounce back within one year. Recovery is an unvalidated assumption that lacks support from field tests, particularly in areas where refuges for NTAs are insufficient, leaving them vulnerable to pesticide exposure. Lastly, once again, the recommended species for testing do not include the most sensitive species of arthropods. As a result, even if the assessment shows no harm to the tested species, there is no guarantee that the same conclusion holds true for all arthropod species.

On the other hand, EFSA and WUR introduce new shortcomings that will further compromise the protection of non-

target arthropods in the EU. Their approach contravenes EU Law by focusing narrowly on protecting only specific aspects of ecosystems and biodiversity, prioritising only those that provide ‘services’ to humans. Alarmingly, they propose to elevate agricultural production as the most important ‘service’ (“trade-off”), while disregarding the known detrimental impact of current industrial agricultural practices on ecosystems and biodiversity. EFSA and WUR’s approach turns the protection of biodiversity upside down, suggesting that arthropods do not require safeguarding, unlike agricultural practices and pesticides. Furthermore, EFSA and WUR introduce the classification of “disservice” for organisms like grasshoppers, mites, and thrips, thus voluntarily leaving entire groups of creatures devoid of any protection under this misguided framework.

EFSA's claim of developing a "next-generation, holistic" risk assessment is misleading. In reality, it serves as a smokescreen for the ongoing destruction of NTAs. By favouring single-minded experts, ignoring the effects of chemical mixtures, and permitting the flawed recovery option, EFSA is violating its commitment to scientific excellence and independence. The stakes are high: if implemented, WUR and EFSA’s approach will further undermine the provisions of the EU Pesticide law by prioritising ecosystem services for humans over the protection of biodiversity, further exacerbating the biodiversity crisis.

