BeeLife
European Beekeeping Coordination

CONTINUE THE EFFORTS TO STRENGTHEN THE EU POLLINATORS INITIATIVE

Input from the European Beekeeping Sector

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EFFORTS TO STRENGTHEN THE EU POLLINATORS INITIATIVE

The EU pollinators initiative was an important first step towards the protection of these animals in Europe. Still, its practical impact has not yet been observed. BeeLife contributed already in 2018 with the ideal shaping of the EU Pollinators Initiative [1]. We reiterate the importance of pollinators and biodiversity in general for our food security, biodiversity, and planet fecundity, but also for our culture, economy and well-being. Here, we contribute again by highlighting a number of issues in which we consider Europe and, mainly the member states, should continue putting efforts and increasing their ambition. Otherwise, the Green Deal objectives will never be achieved.

SYSTEM THINKING TO PROTECT POLLINATORS

First of all, we ask authorities to include systems thinking approach, which would involve stopping considering pieces of legislation as silos, to harmonise the legal approaches for similar topics (e.g. pesticides, biocides, veterinary and human pharmaceuticals), to improve transparency and to improve stakeholders in decision making. Only in doing so, we will better assess risks and help create a pollinator-friendly environment. In our view, the following Services need to understand and clarify their role in problematic:

- The agricultural model (DG AGRI) is of course essential. Agricultural intensification cannot be isolated from its parts nor its parts among themselves. Despite the overarching nature of this policy, authorities keep thinking about this policy in silo. The CAP has tools to educate farmers and citizens living in the rural and urban areas on the importance of pollinators and other beneficial insects, pollination and healthy diets. Furthermore, there are plenty of tools to lead and accompany farmers in their transition toward agroecology. As BeeLife we proposed a specific pollinator eco-scheme [2], which was taken, to our knowledge, only by one member state National Strategic Plan (NSP). Given that the Commission peer reviews the NSPs of the member states, we request the European Commission to explain, promote and include in the NSP of the member states policy measures such as eco-schemes aiming only at rewarding agroecological practices, real integrated pest management (leaving chemical pesticides only as the last resort), and promoting the presence of pollinators and other beneficial insects in farms.

- Fertilisers, pesticides and monocultures are part of the whole in the agrarian system, and the initiative must collect all of these factors to assess and mitigate risks for pollinators. The tools used in Agriculture, including those that enable it, are competent for other services like DG SANTE, biotechnology, nanotechnology, pesticides, biocides, plant-breeding, official controls or veterinary products.

- DG RESEARCH, to foster sustainable future innovation, monitoring and information systems, development of tools to implement Integrated Pest Management and develop alternatives to pesticides and tools to favour the transition towards agroecology. But also to evaluate our dependence to nature as human beings, our beliefs and understanding of life, and to develop methodologies to evaluate the sociological value of pollinators;

- DG EDUCATION, for promoting into European educational programmes information about ecology, environmental medicine or veterinary, etc.; and others);

PROTECTING POLLINATORS IS NOT A COST, IS AN INVESTMENT

Pollinators are a production factor indispensable for the fertility of plants and food production.
It is essential to understand that the current situation linked to pollinator trends is a consequence of human activity through the industrialisation of agriculture and urbanisation. The fact of considering a cost the point of bringing these natural fertilisers back into our modified environment demonstrates how implicit the working against nature is in our society. Science has now well shown that there is systemic biodiversity destruction. Unsustainable agricultural practices and other human-made factors are the ones responsible for the current situation; thus, the call for action to change the circumstances that threaten the ecosystems is to be put in terms of investments.

- DG TRADE and DG ENTERPRISE for the issues linked to the market of beekeeping products and beekeeping as a business;
- Other related European services.

Integration of other levels of decision making in national, regional and local policies, so that any decision which institutions take in land management takes into consideration the needs of pollinators and other living beings required for maintaining a balance in nature (incl. urban and natural areas).

INVASIVE SPECIES CONTROL

BeeLife requests to reconsider the approach towards invasive species and how we combat them in Europe. With the incidence of climate change and globalisation, it is likely that Europe will increasingly receive invasive species in its territory. Eradication is currently the approach to combat them, which may only be efficient in very limited cases.

In the past, the eradication approach has proven to be ineffective against invasive insect species, especially those affecting Apis mellifera, while creating a significant burden for the beekeeping sector. From BeeLife we would like to request to reconsider the official approach to dealing with invasive species on a case by case basis, adopting control measures for its implementation. Furthermore, we would like to remind that on many occasions, invasive species are not a “beekeepers problem”, as is the case for Vespa velutina or Aethina tumida. These are environmental threats that can as well affect other parts of nature. As a result, the responsibility of the control is in the hands of administrations managing the environment and not just in the hands of private individuals like beekeepers.

Diseases and parasites may pose a greater or lesser risk for pollinators' health, but there is no data to reckon them as a generalised problem or a significant cause for the pollinator’s health crisis. Ideally, the Initiative should consider a case by case analysis in which it recognises the diversity of contexts and environmental conditions that affect pollinators.

TOOLS TO VERIFY POLICY EFFICACY

The initiative needs to review not only legislation to check whether different laws have a potential impact on pollinators but also actions to achieve more efficient operations to evaluate these impacts. There is a distinction between policy definition and policy implementation and enforcement. Indicators of the efficacy of policy enforcement are essential. In this context, the Pollinator Index was proposed in the framework fo the CAP performance evaluation. However, it is still to be seen how and when such an index is implemented by the Commission and member states. BeeLife requests that important investments is done in research and monitoring to achieve an operable Pollinator Index as soon as possible, and that this index is not only implemented in the framework of the CAP, but as general index evaluating the enforcement of any policy that could have an impact on pollinators in one way or another.

We propose the following indicators for the validation of the quality of enforcement of legislation:

- Pollen pellets, propolis and honey contamination with pesticides as an indicator of the intensity of pesticide use and, possibly, the appraisal of illegal applications.
- Water contamination with pesticides as an indicator of the intensity of pesticide use and, possibly, the appraisal of illegal uses. Ideally, monitoring environmental pollution should follow a polluter payer approach.

Finally, once we have the methodology establishing these indicators, authorities need to define measurable objectives and initiate corrective measures in case of non-compliance. Private sector agents affected by such a non-compliance requires compensation for the damaged inflicted either by the user of these pesticides or by the public administration allowing them into the market. Depending on the ground of the problem, e.g. a safe product wrongly used is the responsibility of the user, while an authorisation of a widely-known bee damaging product is the responsibility of the public authorities.

CONCEPT OF INNOVATION

As BeeLife we consider that there are many aspects of innovation which are to be helpful to pollinators, despite the fact that innovation is not necessarily a synonym of sustainability. Ranging from technical to cultural, BeeLife stands for promoting innovative practices that benefit pollinators in the long run. In this framework, the innovations we would like to see arriving to the fields are ways to extend the implementation of agroecological practices; establishment, communication and adaptation of No-Action-thresholds for pests and diseases; or technology that allows farmers or beekeepers to become less dependent from agrochemical industry. A possibility could be an improved exchange, consulting experts on pollinators regarding the sustainability of the proposed innovation.

PLANT BREEDING

It is of utmost importance that the plant breeding and selection made in Europe and the plant varieties used in our territory respects the natural traits of plants. We observe in the field melliferous and polliniferous varieties (varieties naturally providing nectar and pollen, e.g. oilseed rape, sunflower, etc.) that have lost their capacity to produce nectar and pollen. As a result, flowers are not any more flowers from their functional point of view and bees lose a vital source of food [3]. As BeeLife we would like to bring to the attention of the authorities this problem, and we propose:

- Further public research on this problem, research that is coherent and coordinated in Europe and to which beekeepers have access to (flowers' capacity to produce nectar or pollen provides the nutrition of their livestock).
- The favouring of the introduction of “bee-traits” in the selection criteria of varieties traditionally producing nectar and pollen: i.e. nectar yield, flowering length, and bee-friendly practices such as no seed treatment with insecticides.
- The CAP can only support the cropping of varieties that maintain their natural traits, i.e. a sunflower field that produces 0 g of nectar cannot be backed by public money because it provides no public goods.

- Innovate and communicate about agronomic practices (e.g. density of seeds and seedings). In line with agroecological principles, organic or Integrated Pest Management approaches.

- Reconsider different agronomic choices that can cause stress to crops, and determine a decrease or prevent secretion of nectar or pollen (such as plant density of oil crops, crop succession, fertiliser inputs, etc.).

PESTICIDES

It seems obvious to remind that the authorities should never approve the use of bee-harming pesticides in any application that can lead to their release in the environment. As BeeLife, we would like to highlight that the only way to properly evaluate the harm of a pesticide for bees is with adequate and scientifically-grounded methodologies and tools. The EFSA Guidance document for the risk assessment of pesticides on bees is the most up-to-date methodology available, and it has to become the reference for running risk assessment at all administrative levels. Ideally, the responsible entities for methodologies should check for their pertinence every five years, to verify if new methods are available and the approach requires an update.

Furthermore, we require a change in the logic of regulation, adding to it the context in which authorities provide pesticides authorisations. Authorisations should be done at a landscape level, setting up maximum levels of application of pesticide according to the landscape composition, pesticide mixture already in use in the landscape and the characteristics of the molecules authorised.

We acknowledge the efforts performed by EFSA in the system thinking approach. With this logic, EFSA is developing a roadmap towards an Environmental Risk Assessment (ERA) that includes insect pollinators as a whole. BeeLife thinks that the EU pollinator initiative needs to achieve a harmonised approach across EU legislation. As soon as a proposal for ERA on insect pollinators is available, the Commission and member states need to translate and integrate it into any pieces of legislation allowing the market of potential pollinator poisons.

We find that better enforcement of legislation is required to maintain the faith in the European law, with clear punishments implemented should the law not be enforced. We ask the Commission to provide more resources to carry out official controls and that the reports of the official controls are made publicly available in a user-friendly way, achieved through the understanding of stakeholders (public administrators, scientists, field practitioners or consumers) needs, and their outcome widely communicated.

We would hereby request the Commission to follow the conclusions of the risk assessment done by the EFSA on banned or suspended uses of pesticides and stops member states abusing the provision of emergency authorisations. Providing 7 years in a row an emergency authorisation of a banned pesticide use, as is the case of countries like Roumania, is not any more an emergency. Infringement procedures need to be activated.

We would like to remind that seed treatment with specific molecules is a prophylactic use and against the Sustainable Use of pesticides Directive. The lack of a clear definition of IPM and the widespread presence of farm advisors from commercial companies are most likely the reason why member states have done a very poor implementation of this piece of legislation. Should the authorities want to really reduce the use of pesticides (and why not, of VMPs, biocides and pharmaceuticals, see later) a number of tools need to be integrated into the relevant legislation:

1. Thresholds for combinations of pest/parasite/disease-crop/animal
2. Strengthen the network of independent field advisors (CAP, see above)
3. Intensify the controls of IPM implementation
4. Request farmers to record: the IPM methods they use, the pest surveillance methods they perform, and the No-Action-thresholds they use.
5. Target public research for the definition of thresholds per combination of pest-crop/animal

The efficacy of new pesticide application technologies, such as drones, machinery for precision farming, etc. in reducing the use and risk of pesticides needs to be proved and compared to the alternatives, preferably non-chemical ones.

PHARMACEUTICALS, VETERINARY PRODUCTS AND BIOCIDES

BeeLife calls for real consideration to be given to the risks associated with the toxicity of veterinary, pharmaceutical and biocidal products used in human health and animal husbandry on pollinating insects. Ecotoxicity issues pollinating insects need to be better integrated into environmental risk assessment before obtaining marketing authorisation for pharmaceutical, veterinary drugs and biocidal products as is the case for plant protection products. Indeed, a number of active ingredients are considered multipotent chemicals, meaning that they have an action, and they are authorised, as products for the protection of plant health (pesticides), animal health (veterinary medicinal products (VMPs), human health (pharmaceutical products) and buildings or transport (Biocides).

Still, the pieces of legislation regulating these different uses do not have a harmonised approach as regards the impact on the environment that these products may have. Yet, field observations and research have proved that these products can reach pollinators and have a negative impact on them. BeeLife requests that pollinators are taken into account the Environmental Risk Assessment (ERA) of all these legal frameworks and that the most advanced approach is implemented. EFSA is currently evolving towards systems thinking in the risk assessment which involves as well insect pollinators. The methodology for ERA should be the same independently of the legal framework that puts the chemicals on the market.

Besides, the marketing authorisation dossier submitted by manufacturers should include methods for the detection of insecticide substances in the matrices associated with bees (wax, honey, bees, bee bread) similar to the dossiers for plant protection products. It would facilitate the detection of these substances in cases of suspected poisoning of bee colonies.

It is essential to increase the current knowledge of the exposure factors of bees to products used in human health and animal husbandry through field studies mimicking their use or via epidemiological studies. Such an increase also requires a better understanding of bee water collection on potentially contaminated sources. Furthermore, epidemiological studies should be conducted to estimate the extent of damage to bee colonies when these insecticides are present in their environment.

Concerning vector control, BeeLife called in 2018 for the revision of Directive 2000/75/EC, which imposes systematic treatments on farms, insofar as they have proved ineffective and present an ecotoxic risk to non-target organisms. We do not really know if this request was taken into account by authorities. This directive has been drawn up intending to eradicate bluetongue, without considering any other collateral consequences of this eradication. Should this not be the case, please consider revising it.

It is also essential to ensure better public knowledge of the human and veterinary pest control and insecticidal biocidal products markets. Considering the pollution that these products cause, especially in watercourses, this problem is as much a public health imperative as an environmental risk. For the same reason, it does not seem appropriate that farmers should be exempted from biocide certification because their use of biocidal products would not expose "uninformed populations". Given the risks of contamination associated with specific treatment devices, such as insecticidal baths, authorities should consider setting better precautions for the use of veterinary antiparasitic drugs. They may even combine the measures with more continuous monitoring of the proper implementation of these conditions of use.

These measures should be accompanied by higher awareness among public health and veterinary practitioners of the environmental consequences of the treatments they prescribe, particularly during their training. Doctors and veterinarians must, in fact, relay the problems of ecotoxicity to farmers. Such awareness-raising could have as a pillar the good practices recommended by working groups dealing with environment, parasitology and beekeeping, which should be widely respected.

Following the example of the approaches promoted in crop production, the development of alternatives to the most toxic products in public health and veterinary pest control must be encouraged.

PUBLIC AVAILABILITY OF DATA

There is a vast amount of data produced automatically and systematically in Europe by the regions or Member States which have environmental relevance. The databases are as follows:

- Water contamination monitoring (under the Water Framework Directive)
- Land Parcel Occupation (Under the CAP)
- Cover/Catch crops (under the CAP)
- The pesticide use in the agricultural production (under the Sustainable Use Directive and Regulation EU 1107/2009)
- Availability of the soil humidity
- Other projects of citizen sciences

We hereby request the public disclosure of these datasets in a harmonised way with enabled geo-localisation. Furthermore, we would hereby request to impose that researchers receiving public funding disclose their data after one year of the finalisation of the projects and that these data are in good shape for others to use and well documented.

REFERENCES

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[3] BeeLife European Beekeeping Coordination. 2016. Bee-friendly Plant Breeding. https://bit.ly/3NURmiK