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REPORT

INFORMATION SESSIONS ON 23 NOVEMBER 2021

REVIEW OF THE EFSA GUIDANCE ON THE RISK ASSESSMENT OF PLANT PROTECTION PRODUCTS ON BEES (*APIS MELLIFERA, BOMBUS* SPP. AND SOLITARY BEES) - SPECIFIC PROTECTION GOALS FOR BUMBLE BEES AND SOLITARY BEES

DG SANTE Unit E4 invited experts nominated by Member States and the members of the EFSA's Stakeholder Consultation Group[1] for the review of the Bee Guidance Document to two separate virtual information sessions. The experts from the EFSA's Working Group on the review of the Bee Guidance Document[2] were invited to both sessions.

Experts from 21 Member States plus Switzerland and Norway, 8 members of the EFSA's Stakeholder Consultation Group for the review of the Bee Guidance Document (absent Apimondia), and 7 experts from the EFSA's Working Group on the review of the Bee Guidance Document participated.

This report covers both sessions as the agendas and presentations given were identical. The programme consisted of an introduction by the Commission, followed by three presentations (embedded below) and questions and answers.

Welcome by the Commission

The Commission welcomed the participants and summarised the steps taken in 2021 to agree on a specific protection goal for honeybees. On 28 June 2021 in the AGRIFISH Council Agriculture ministers supported a specific protection goal for honeybees expressed as a maximum acceptable reduction in colony size of 10% due to impacts of a pesticide.

Following this, the Commission requested EFSA to continue the work on the review of the Guidance document on the basis of that specific protection goal for honeybees. How this will be translated into decision making criteria for the lower tiers was explained by EFSA in an info session on 15 November 2021.

The Commission underlined the importance of also protecting wild bees from pesticides and therefore the need for specific protection goals (SPGs) for bumblebees and solitary bees. This

[1] https://www.efsa.europa.eu/sites/default/files/Minutes_Selection_Board_SH_24_May_2019.pdf
[2] https://ess.efsa.europa.eu/doi/doiweb/wg/685752

info session offers an opportunity to provide input to EFSA on this subject, in view of finalising a supporting document for the setting of specific protection goals for bumblebees and solitary bees. The Commission emphasised that the intention of the meeting is ensuring awareness of all available information.

1. Presentations by EFSA

In an introductory presentation, EFSA presented key facts about the biology of bumblebees and solitary bees, explained how specific protection goals for these species were set in 2013, and if it is possible to extrapolate from honeybees.

A second presentation explained available models for bumblebees and solitary bees.

The third presentation discussed the available field study data for bumblebees and solitary bees.

2. Questions and answers from the morning session with Member States

Question: I would like to know the criteria to choose the studies considered, because it could be relevant for the results for both solitary and bumblebees as a larger variability in the Southern Zone than in the Central and Northern Zone can be expected.

EFSA explained that there is a lack of data in the Southern zone and this will be clearly mentioned in the supporting document.

The Commission acknowledged that currently there are no such data available, however underlined the importance to move forward to better protect wild bees on the basis of the current available data. Once more data is available, there is always the possibility to update.

Question: Is there knowledge on the sensitivity of *Bombus terrestris* and *Osmia bicornata* vis-à-vis other bumblebee and solitary bee species?

EFSA explained that interspecies sensitivity was assessed to identify extrapolation factors and relevant information will be included in the revised Bee Guidance Document.

Question: What is meant with wild bees? How will field studies be handled, can wild bees managed by the researchers still be considered as representative for a real situation?

EFSA explained that wild bees can only be studied in the field for regulatory purposes by introducing populations of wild bees and observing them. These populations are not fed nor treated for diseases, in that respect they are kept natural.

Question: The spatial scale should not be set at 'edge of field' as several wild bee species live in pasture and grassland.

EFSA confirmed that the edge of the field should be considered as the worst-case scenario of exposure of these bees. These bees will also fly into the field and be exposed there. In-field exposure of foraging bees is considered in the risk assessment but not the direct exposure of nests in the field. Data on this type of exposure is currently not available but EFSA has launched a procurement for research to obtain these data.

Question: Will potentially different SPGs be set for in-field and off-field? Reference to non-target arthropods was made especially regarding solitary bees.

The Commission reiterated that during this meeting no discussion on SPG would take place and indicated that discussion would take place at a later point in time.

Question: as brainstorming exercise: Have you considered the elasticity of the bumblebee stages you focus on? How is number of workers/weight of the colony correlated with the number of hibernating queens for the next year, and is it correlated with the "hibernating success" of the potential new bumblebee queens?

EFSA explained that there is no data on queen overwintering success in the data set. EFSA requested Member States to provide such data if available to them.

Question: How is the choice of colonies for field studies done? For example, choosing colonies with a high number of young queens within a few days of starting the study may show that the selected colonies have reached sexual maturity, does this affect the outcome of the study? Is the mortality of the founding queens during spring/summer a parameter considered relevant or investigated in the bumblebee field studies?

EFSA explained that there are not a lot of new queens during the first days. Mortality of the queen was so far not reported .

Question: Will the SPG for bumblebees and solitary bees be the same?

COM explained that this will be most likely not be the same due to their different biology.

3. Questions and answers from the afternoon session with the members of the EFSA's Stakeholder Consultation Group

Question (CropLife Europe): asked for some guidance on how bumblebee colonies are to be prepared as they can be variable when sent out by the suppliers.

EFSA indicated it intends to include as many recommendations as possible in the guidance document.

Question (PAN Europe): wondered if the control data from the agri-environment are trustworthy as they show higher variability than the models. In their opinion control data from agricultural environments are from colonies that are continuously exposed to pesticides. Would this explain the higher variability of field data, compared to the models? This should be assessed.

EFSA explained that a control in field studies is a proxy of reality. It was demonstrated by using BEEHAVE that the control data showed clearly a higher variability than the model. For solitary bees and bumble bees there are no models available to do a similar analysis. There is a general knowledge gap on the abundance on solitary bees and bumblebees. The more complex a system is, the higher the variability is. When comparing the background variability , data from pristine agricultural ecosystems should be used, but data from such pristine ecosystems are not available in Europe and thus no indication can be derived on a possible baseline to which such comparison would be straightforward.

Question (PAN Europe): Has EFSA been able to define experimental conditions that lead to higher bumble bee population/weight variability than others?

EFSA explained that it is still analysing this, e.g. considering relevant landscape features, but it is anticipated that no information would be available for a comprehensive understanding of the issue.

Question (CropLife Europe): Solitary bees - the concept of starting population to replace itself is sound. However, many of the released bees may leave the test area so how can this initial population be accurately be estimated/measured?

EFSA acknowledged that there are differences between studies. However, the number of cocoons at start is known. Some studies mentioned the number of females hatched. Therefore, the number of females emerged per female of the starting population is preferred.

Question (BeeLife): Why are you using the variability approach as for honey bees? Preferable approach for bumblebees and solitary bees by risk managers was the so-called 3rd approach.

The Commission reiterated that the 3rd approach is used as there are no models available to simulate the variability of colonies or population for bumblebees and solitary bees respectively. EFSA underlined that a specific model, BEEHave has been used to simulate the Normal Operating Range (NOR) for honeybees for the approach 2. This model is not suitable for bumblebees and solitary bees.

Question (BeeLife): Could it be clarified if control data, when derived from fields where pesticides have been used, are considered in the evaluation and communicated clearly to risk managers?

EFSA explained that during the peer review of the risk assessment, risk assessors are aware of any potential control contamination and any other stressors as these are always reported for field studies. EFSA underlined that such facts and circumstances will be explained and considered in the supporting document.

Beelife and Commission (DG ENV) seeked further clarification on the control plots in field tests.

The Commission underlined that for field studies no chemicals should be used on the control fields and the surrounding area (a radius of 2 km) where the field test are performed. Therefore, there is certainty that in the year of the field study no pesticide was applied in the control field and its wide surrounding area (post meeting note: 'pesticide under investigation'). Furthermore, the Commission reminded that use of pesticides per parcel has to be recorded throughout the EU. Field studies have to be realistic and are therefore need to be performed in real agricultural surroundings. EFSA confirmed that in all studies presented today for solitary bees and bumblebees, the history of pesticide use and every potential stressor is included in the field study report.

On the request which specific protection goals are proposed for wild bees, ***COM*** *reiterated that the values for the specific protection goals are not yet under discussion*.

Question (IBMA): the interpretation of data from *Osmia* in field studies can be tricky because of feeding preferences that e.g. could cause the population to desert the test field during the studies. Furthermore, the losses of workers could be an unsuitable endpoint, the preference should be on bumble bee queens or nesting females.

COM invited IBMA to send such useful information to EFSA.

CropLife Europe explained that in practice for CNI (chloronicotinyl insecticide) studies, fields where such pesticides had not been used for several years were selected to perform the field studies. In addition, the soil was checked for CNI residues before the study was started. Availably of 5 years pesticide use history on the respective field is a standard for all field studies (even for residue studies). In addition, it is reminded that for running a study the crop must be able to grow, flower and be productive so some crop protection is needed. This is especially important for the control as if the control plot plants are full of weeds and disease

they may not flower and thus not provide a suitable food source compared to the treated plots.

ESA suggested for a possible way forward to look at the known pollinator communities expected in a particular crop, and establish a checklist to use when performing a study. That would help building knowledge on what needs to be protected and enters into a reference status.

4. Next steps and closing

The Commission thanked all participants for the good discussions and invited to send further data in writing to EFSA by 26 November 2021.

The Commission will inform the Standing Committee Plants, Animals Food and Feed at its meeting on 1-2 December 2021 about this info session and intends to have a first discussion of the supporting document at its meeting of 27-28 January 2022.