Pesticide Action Network Europe

To: members of the SCoPAFF

Brussels, 18 September 2024

Subject: Call to endorse the new ADI and ARfD values of acetamiprid and to support the Commission's proposal to adjust its MRLs accordingly

Dear members of the EU Standing Committee on Plants, Animals, Food and Feed (SCoPAFF),

Ahead of the meeting of the SCoPAFF on 23 and 24 September, PAN Europe would like to share its views in relation to the Commission's proposal to amend the renewal report of acetamiprid to lower its Acceptable Daily Intake (ADI) and Acute Reference Dose (ARfD), as well as its proposal to adjust its Maximum Residue Levels (MRLs) in certain food products. These proposals represent the first critical step to improve the protection of consumers, in line with EFSA's recent scientific conclusions. For PAN Europe however, and according to Regulation 1107/2009, which is underpinned by the precautionary principle and aims to ensure that pesticides and their residues have no harmful effects on humans (Article 4(1),(2)), acetamiprid should be banned and no residues should be detected in food.

As indicated by PAN Europe in previous communications, scientific evidence shows that neonicotinoid pesticides, including acetamiprid, are not only toxic to bees. They can pass through the blood-brain and placental barriers and are detected not only in the blood and urine of children but also in cerebro-spinal fluid[1]. In a recent study in mothers and infants, acetamiprid was widely detected in maternal serum, umbilical cord serum and breast milk samples[2]. These

[1] Laubscher et al. Multiple neonicotinoids in children's cerebro-spinal fluid, plasma, and urine. Environ Health 21, 10 (2022). https://doi.org/10.1186/s12940-021-00821-z

[2] Huang et al. Comparison of prenatal and postnatal exposure to neonicotinoids and their temporal trends in breast milk. Sci Total Environ. 2024 Nov 10;950:175386. https://doi.org/10.1016/j.scitotenv.2024.175386

results are alarming, considering that acetamiprid affects mammalian neuron development and can have serious implications in the developing brain of children, similar to nicotine[3].

Consecutive to a PAN Europe letter sent to the European Commission, indicating new evidence on the toxicity of acetamiprid to mammals, the Commission sent a mandate to EFSA in July 2022 to re-evaluate the toxicological endpoints and residue definitions for acetamiprid, in light of the new scientific literature. EFSA's conclusions, published in May 2024, highlight developmental neurotoxicity (DNT) concerns and conclude on the necessity to lower the toxicological reference values (TRVs) used in risk assessment. When applying the Integrated Approaches to Testing and Assessment (IATA) framework, EFSA found that acetamiprid activates and desensitises nicotinic acetylcholinesterase receptors, starting at a low concentration (from 1 µM), which may lead to adverse outcomes at the organism level, raising DNT concerns. Moreover, EFSA identified regulatory data gaps, particularly the lack of acceptable *in vivo* measurements of learning, memory, and motor activity. Using an additional uncertainty factor (UF) of 5, EFSA advises lowering the ADI and ARfD values of acetamiprid from 0.025 mg/kg body weight (bw) per day to 0.005 mg/kg bw per day. The same ADI and ARfD values were set for the metabolite IM-2-1, which has structural similarities with acetamiprid. Moreover, EFSA noted that the same additional UF should be applied for setting the (Acute) Acceptable Operator Exposure Level ((A)AOEL).

The European Commission's proposal is to lower the ADIs and ARfDs to the levels recommended by the EFSA, and to reduce a number of MRLs to the level found safe for consumers by EFSA, including at the Level of Determination (LOD) in some cases.

PAN Europe is of the opinion that the findings from the scientific literature and EFSA that acetamiprid may cause developmental neurotoxicity should lead to the withdrawal of the approval of this substance. In case of doubt, the precautionary principle should be applied. Although lowering the TRV is a first step, it will not ensure that consumers and residents of agricultural zones are safe from exposure to this brain-harming pesticide. We urge you to put the protection of European citizens first and demand the withdrawal of this pesticide from the market.

Since EFSA received its mandate, dozens of new scientific publications have been published on the topic. Just looking at the last twelve months, scientific publications alert us on:

1. Exposure to low-doses of acetamiprid and other neonicotinoids induces behavioural and cognitive impairment in rats[4] (Saito et al. 2023, Longoni et al 2024);

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[3] Kimura-Kuroda et al. Nicotine-Like Effects of the Neonicotinoid Insecticides Acetamiprid and Imidacloprid on Cerebellar Neurons from Neonatal Rats (2012). PLOS ONE 7(2): e32432 https://doi.org/10.1371/journal.pone.0032432

[4] Saito et al. Behavioral effects of adult male mice induced by low-level acetamiprid, imidacloprid, and nicotine exposure in early-life. Front Neurosci. 2023 Aug 16;17: https://pubmed.ncbi.nlm.nih.gov/37662107/

Longoni et al. Long-lasting developmental effects in rat offspring after maternal exposure to acetamiprid in the drinking water during gestation. Toxicol Sci. 2024 doi: 10.1093/toxsci/kfad122

2. A link between exposure of pregnant women and congenital heart diseases[5].

Furthermore, a series of other studies identifying similar results with other neonicotinoids should lead to a global reduction of MRLs for all neonicotinoids to the LOD. Indeed, neonicotinoids -including the new-generation sulfoxaflor and flupyradifurone- are systemic and present exactly the same mode of action.

In light of the above, and considering the fact that both risk assessment and risk management are always a few years behind in terms of taking into account the most recent science, we would have welcomed the Commission's immediate ban of acetamiprid.

We therefore ask you to **support** the Commission's proposal to amend the renewal report of acetamiprid to lower its ADI and ARfD, as well as its proposal to adjust its MRLs. We also urge you to ensure that its (A)AOEL values are quickly reviewed.

Lastly, we kindly ask you to send a new mandate to EFSA to carry out an assessment on all scientific evidence on the DNT of imidacloprid, acetamiprid, thiamethoxam, clothianidin, thiacloprid, flupyradifurone and sulfoxaflor.

Thank you for your attention and commitment to protecting public health.

Yours sincerely,

On behalf of PAN Europe

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[5] Qu et al Maternal serum neonicotinoids during early-mid pregnancy and congenital heart diseases in offspring: An exploratory study. Environ Pollut. 2024 Feb 1;342:123046. doi: 10.1016/j.envpol.2023.123046