



Brussels, 15 April 2022

Ms. Kyriakides
European Commissioner for Health and Consumer Policy
European Commission
B-1049 Brussels - Belgium

Dear Commissioner Kyriakides,

First of all, we wished to thank you for moving forward with the ban on Sulfoxaflor. We consider the environment will be safer for insects without this chemical.

We would like to bring to your attention the recent publication of a new scientific study¹ demonstrating the presence of neonicotinoid insecticide residues in children cerebrospinal fluids (CSFs). This study identifies that 100% of the children present at least one neonicotinoid insecticide residue in their CSF, while 64% of the CSF samples contain at least 2 neonicotinoids. Furthermore, 93% of the samples contain the metabolite N-desmethyl-acetamiprid.

These findings are extremely worrying, considering past studies. Indeed, in 2020, a study² was published on the blood transfer of neonicotinoids residues between pregnant mice and their fetuses: the levels of clothianidin were the same between dams and their fetuses, meaning that the placental barrier does not play its protective role against neonicotinoids. Contrary to most pesticides, neonicotinoids are indeed water-soluble. We assume this might be the reason they cross the placental- and the brain barriers.

To finish with, in 2012, a study³ was published showing harm of neonicotinoids on rat cerebellar neurons from neonatal rats. This was contradicting one of the pesticide industry's main arguments in favour of neonicotinoids: they supposedly did not interact with the human nervous system.

¹ Multiple neonicotinoids in children's cerebro-spinal fluid, plasma, and urine. Laubscher *et al.* 2022. <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-021-00821-z>

² Quantitative elucidation of maternal-to-fetal transfer of neonicotinoid pesticide clothianidin and its metabolites in mice. Ohno *et al.* 2020. <https://pubmed.ncbi.nlm.nih.gov/31923464/>

³ Nicotine-Like Effects of the Neonicotinoid Insecticides Acetamiprid and Imidacloprid on Cerebellar Neurons from Neonatal Rats. Kimura-Kuroda *et al.* 2012. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0032432>

Interference with the development of the brain of the unborn may have catastrophic consequences on children's mental health, capacities and well-being. A recent scientific literature review⁴ shows that a series of studies show that neonicotinoid interact with the development of the mammalian brain.

Following these highly worrying findings, we ask you to urgently mandate the EFSA to provide an opinion on a reduction of MRLs for all neonicotinoids and neonicotinoid-like insecticides that have the same mode of action and comparable water-solubility properties (including sulfoxaflor and flupyradifurone). We also ask you to launch a procedure under article 21 of pesticide regulation 1107/2009, in order to review the scientific literature and assess if, based on this information, neonicotinoids and neonicotinoid-like substances meet the criteria for approval, in light of the obligation to implement the precautionary principle.

Thank you in advance for your answer.

Best regards,

Martin Dermine, policy officer

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⁴ Neurotoxic Effects of Neonicotinoids on Mammals: What Is There beyond the Activation of Nicotinic Acetylcholine Receptors?—A Systematic Review. Costas Ferreira and Faro. 2021. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8395098/#B64-ijms-22-08413>