

Via E-mail

To:

European Food Safety Authority, Executive Director, dr. B. Url

c.c.:

DG SANTE, Head Of Unit Pesticides and Biocides, Dr. Klaus Berend  
European Chemicals Agency, Executive Director, Dr. Björn Hansen  
RIVM, Head of Department for Food Safety, Dr. Anton Rietveld  
Radboud University Nijmegen, Prof. B. Bloem

Subject: possible relation between the use of specific pesticides and the  
development of Parkinson's disease

Dear dr. Url,

We would like to express our concerns with regard to a possible relation between the use of specific pesticides and the development of Parkinson's disease. This issue has generated a lot of attention in the Netherlands in recent years, including the medical and research field, the media and the political arena. On behalf of the Dutch Ministry of Agriculture, Nature and Food Quality the RIVM is currently conducting an exploratory study on data requirements for neurotoxicity in relation to the development of neurodegenerative diseases.

In November 2020, professor Bas Bloem<sup>1</sup>, a neurologist with special interest in this area, gave a presentation to the Ctgb board. He explained that it is difficult to establish an unambiguous causal relationship between active substances in our regulatory framework and the development of Parkinson's disease since there is a lag time of up to 10-15 years before the first symptoms of the disease become manifest. Despite these difficulties, he pointed out that more and more evidence is emerging substantiating a possible relationship between the use of pesticides and the development of Parkinson's disease. Specifically, there is growing experimental and epidemiological evidence supporting this possible relation between exposure to pesticides and the risk of Parkinson's disease.

<sup>1</sup> Radboud Univ Nijmegen, Med Ctr, Dept Human Genet, NL-6525 ED Nijmegen, Netherlands;  
<https://www.linkedin.com/in/bas-bloem-4530777/>

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Behandeld door  
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A particular concern is the recent recognition that Parkinson's disease is the fastest growing neurological condition in the world, further fueling concerns that environmental toxins such as pesticides may be contributing to this growth.


On February 22 we had a brief discussion with EFSA [REDACTED] on this subject. He explained the current activities EFSA is involved in, specifically the EFSA Pilot Project on New Approach Methodologies (NAMs) for tebufenpyrad risk assessment, in collaboration with Anses. The overall outcome is intended to be used in the renewal process for tebufenpyrad.

However, there are many more currently approved active substances for which we do not know whether exposure could be associated with Parkinson's disease. We therefore request EFSA to specifically screen the currently approved active substances for a possible association with Parkinson's disease (e.g. based on chemical structure and toxicological profile). Furthermore, it is well known that brain lesions affecting the substantia nigra can cause a number of movement disorders including Parkinson's disease. The next step could be to perform dedicated tests on active substances earmarked on the basis of the initial screening for their specific toxic effects on the substantia nigra. In our view, such experiments would have to be performed in ageing animals that are known to be more vulnerable to the toxic effects of pesticides. These experiments should also consider the possibility that combined exposure to multiple pesticides (that are often used in combination in agriculture) lead to greater neurotoxicity and a further enhanced risk of developing Parkinson's disease. Would this research fit into the EFSA Pilot Project on NAMs?

We hope that EFSA will be open to the suggestions above in order to gain more insight into a possible relationship of currently approved active substances in pesticides and the development of Parkinson's disease.

Sincerely yours,

The Board for the Authorisation of Plant Protection Products and Biocides,  
for this organisation:

  
J. E. de Leeuw  
Chairman of the Board