Homes close to pesticide spraying show all year exposure

The worrying results of Générations Futures EXPPERT survey 6 (dust analysis) show the urgent need to implement decisions taken under the European regulation on pesticides and within the French national strategy on endocrine disruptors.

Paris, Brussels, 1 March 2016 - To demonstrate the urgency of strong preventive action in regard to endocrine disruptors - substances that threaten the developing fetus and young children even at low doses – Générations Futures, a HEAL partner and member in France, decided to undertake a series of monitoring reports. These are based on detailed analyzes showing the omnipresence of a number of endocrine disrupting pesticides in our environment leading to significant exposure of the population. This series is called EXPPERT (an abbreviation for “Exposure to pesticides that are endocrine disruptors” in French).

Générations Futures wanted to know more about exposure to pesticides among those living close to where spraying takes place because these people are particularly vulnerable. Some of the pesticides are suspected to be endocrine disruptors. The survey therefore addressed whether people living in agricultural areas using synthetic chemicals in cultivation (in vineyards and orchards and on fields) were permanently exposed to pesticides even in their homes. It also asked whether this exposure included substances suspected of being endocrine disruptors and whether exposure varied according to the season.

Investigation

Twenty-two dust samples were collected in July 2015. (Although 24 samples were taken from different homes taking part, two samples were unsuitable for laboratory testing.) In January 2016, an additional five samples were taken in homes that had taken part in the summer collection.

Six of the houses involved are situated in wine-growing areas, five are near orchards, eight are near field crops and the remaining three are in areas bordering on a mixture of these cultivations. Tests were undertaken for 61 different pesticides.

Results: a pesticides dust bath

The results went beyond all expectations:

- Each home is exposed. Analysis of the dust samples showed that each contained between eight and 30 pesticides.
- On average, 60% of the pesticides detected are potential endocrine disruptors. The average number of pesticides per home is almost 20 pesticides and almost 12 are potential endocrine disruptors (60.18%)
- Pesticides that are possible endocrine disruptors made up a very large proportion of the pesticide exposure. Specifically, 17.3 mg of an average of 17.6 mg of pesticides quantified per kg of dust were found to be potential endocrine disruptors (98.16% of the total)
- Three products are found in all (100%) of samples. They are permethrin, tebuconazole and dimethomorph.

Among the pesticides identified, some have been banned in agriculture in France for several years. For example, Diuron, or DCMU (3-(3,4-dichlorophenyl)-1,1-dimethylurea), which is found in over 90% of homes was banned in France in December 2008.

In summer and in winter

The total amount of all pesticides quantified decreased in the winter. Levels of different pesticides were between 30% and 95% lower than in the summer. In a sense, it is reassuring that the concentrations decrease. On the other hand, it is worrying that the exposure to these pesticides appears to exist throughout the entire year.

"These results clearly show that people living close to cultivated areas are exposed at home all the year round and to a significant cocktail of pesticides, many of which are potential endocrine disruptors. This fact illustrates the urgent need to change agricultural practices and to ensure that the spraying of synthetic pesticides is prohibited near areas where people live," says François Veillerette, Générations Futures’ spokesperson.

He adds: "Our work also underlines the urgent need for the announcement of a definition of endocrine disruptors in order to provide real protection at European level. We call on the French government to put strong pressure on the European Commission so that this widespread exposure to endocrine disrupting pesticides in our countryside can be stopped tomorrow."

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Notes
"Enquête EXPPERT 6 (analyses de poussières) : des riverains de zones cultivées exposés aux pesticides perturbateurs endocriniens chez eux, tout au long de l’année!", EXPPERT Survey 6: Read the full report online in French. It includes the analysis of dust samples from both the summer and winter test done by the laboratory, Kudzu Science. Press release in French

Other materials available in English
EXPPERT Survey 1: Which endocrine disrupting insecticides are children exposed to everyday? Press release, Brussels, 25 March 2013
EXPPERT Survey 3: How are children exposed to Endocrine Disrupting Chemicals? Press release, 9 July 2014
EXPPERT Survey 4: Nineteen endocrine disrupting pesticides found in samples of women’s hair Press release, 12 March 2015
EXPPERT Survey 5: Pesticides that are banned or suspected to be EDCs are found in green salads Press release, 22 September 2015