

Residents exposed to pesticides up to 100 meters and more from the nearest spraying area!

The issue of the exposure of residents of cultivated areas to pesticides has been at the heart of Générations Futures' concerns for years. This year we wanted to launch a campaign studying the presence of pesticides in the air among these residents. We also wanted to have it participatory, that is to say, allowing the active participation of the public concerned.

With the independent laboratory Yootest we have designed a specific method for this campaign. We thus have:

- Chosen a reduced list of 30 pesticides authorized only for agricultural uses to be analyzed by selecting them among the most used in France.
- Chosen a simple and innovative glass sampling method.
- Gathered information on surrounding crops and their distances from tested homes.
- Analyzed the 58 samples received by liquid chromatography and gas chromatography coupled to a tandem mass spectrometer.

Main results

79.3% of the samples taken show at least one pesticide residue!

- Distance to crops influences this percentage of occurrence. Thus between 95% (window less than 21 m from crops) 90% (window between 20 and 100 m from crops) and 50.0% (window more than 101 m from crops) of the samples present had at least one pesticide residue.
- Windows located less than 20 m from crops show more different pesticides (3.1 pesticide residues on average) than those located between 21 m and 100 m (2.6 pesticide residues on average) and those more than 101 m (1.2 pesticide residues on average)
- The majority (72.7%) of the samples without pesticide residues were taken from windows located more than 101 m from the crops. However, the farthest sample of crops with pesticide residues was located at a distance of 1500 m from the first crop!
- The nature of the crops also influences this percentage. It is therefore more common to detect pesticides near vines (94.4%) compared to field crops (73.1%).
- Of the 30 pesticides sought, 15 were detected at least once. These are 9 fungicides, 5 herbicides and 1 insecticide.
- Of these 15 pesticides found 4 at least were suspected EDCs, 1 was a suspected carcinogen and 1 was a suspected reprotoxic.

Conclusion

These results obtained on a limited number of samples would need to be confirmed on a larger number of samples. However, a trend is emerging which shows that the average exposure to pesticides (in terms of occurrence of residues, number of residues found and median concentration) seems quite comparable in our sampling in zones 0 to 20 m of crops and 21 100m from crops. Significantly lower figures are only found for samples taken beyond 100m of crops.

“These initial results therefore plead in favor of setting up really effective treatment-free zones, much larger than the 5 to 10 m currently planned. The distance of 100 m, long requested by Générations Futures, seems to have a very clear effect on reducing exposure to pesticides.” declares François Veillerette, spokesperson for Générations Futures.

“Générations Futures asks the government, which must partially rewrite the texts on the use of pesticides following the recent judgment of the State Council, to take this situation into account in order to reinforce the too short distances currently in place.” He adds.

Générations Futures also calls on citizens to take action to find out about their exposure to pesticides and to strengthen the conclusions of this participatory citizen survey by participating in Exporip by having a pesticide analysis carried out on their windows ([go to page](#))