

71% of pesticide metabolites at risk for drinking water have not been monitored in groundwater or drinking water !*

*which represents 56 molecules

Generations Futures reveals, in an exclusive report published today, a very insufficient monitoring of water and a significant underestimation of water pollution in France.

According to official analyses conducted by French agencies[1], metabolites, degradation products of active pesticide substances in the environment, contaminate drinking water more than the substances themselves. Yet, although public authorities often emphasize that "tap water is one of the most controlled foods in France[2]", we find in reality that few pesticide metabolites are included in drinking water monitoring compared to the vast number of existing metabolites. Moreover, when such monitoring is implemented, it often occurs too late, sometimes after the active substances have been banned.

In light of this situation, a question arises: what if the pesticide metabolites currently included in analyses only represent the tip of the iceberg? We therefore investigated to find out whether there are other pesticide metabolites likely to contaminate groundwater and drinking water but that are not yet being monitored. And the results of our investigation, which we are publishing today, are quite alarming!

Our investigation: A thorough and detailed work

Given the multitude of existing active pesticide substances that can generate metabolites, it was necessary to prioritize our research. We focused on studying 88 pesticides that have been authorized or were authorized in France since 2011 and are at risk of generating mobile metabolites. Based on pesticide evaluation files from the French Agency for Food, Environmental and Occupational Health & Safety (Anses) for these 88 substances, we compiled a list of metabolites at risk of contaminating groundwater and exceeding the standard of 0.1 µg/L for drinking water.

Note: This standard of 0.1 µg/L applies to pesticides and their relevant metabolites, i.e., those that may pose a health risk to consumers. Since the majority of metabolites have not been evaluated, they must by default be considered relevant. Therefore, the 0.1 µg/L limit applies to the vast majority of metabolites we studied.

To determine whether these metabolites identified as being at risk are actually being monitored, we listed all the metabolites that have been analyzed at least once in groundwater and/or drinking water in the past two years by the agencies responsible for water monitoring in France.

So what did we discover?

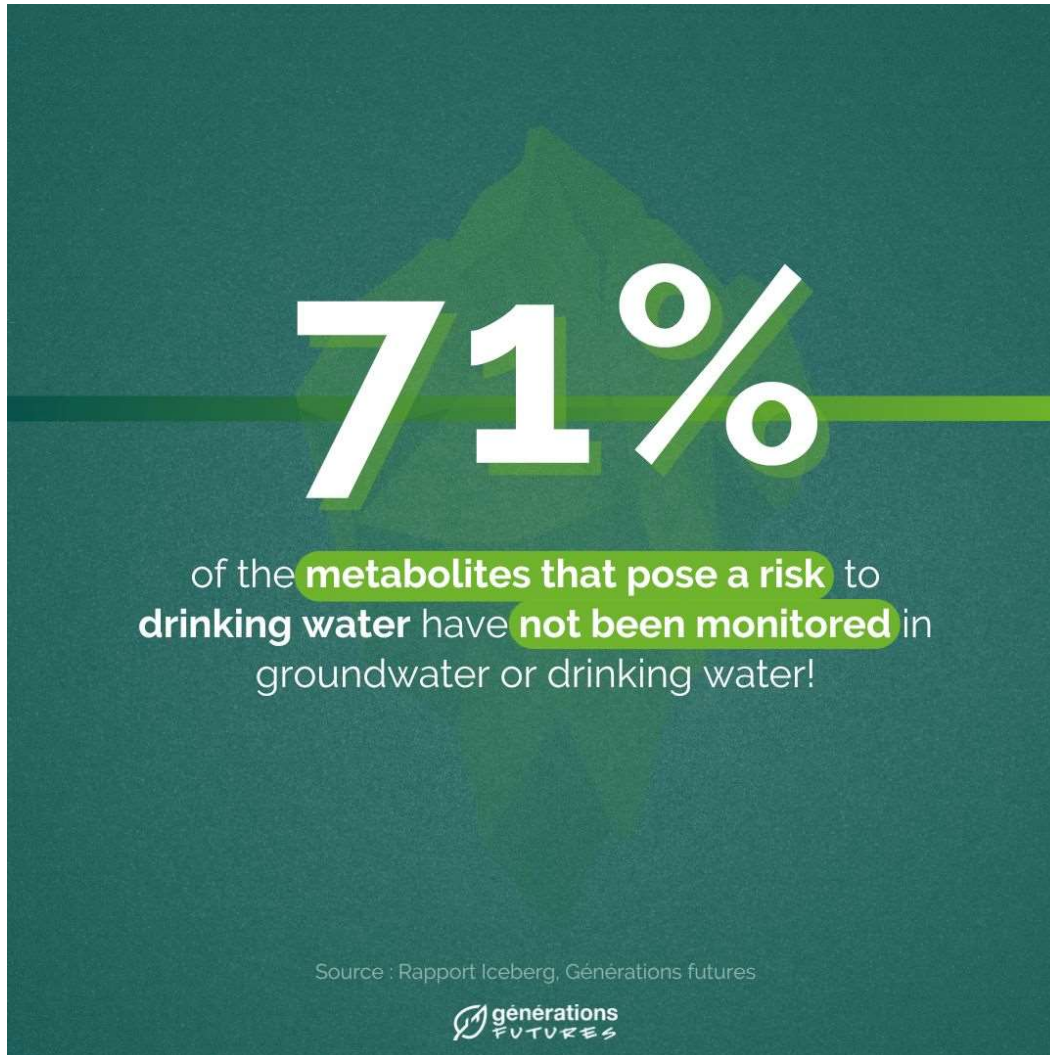
Our results: Dozens of problematic metabolites ignored!

Several conclusions can be drawn from our investigation:

The use of synthetic pesticides is a threat to the quality of groundwater bodies: Out of the 88 active substances studied, we identified 39 that generate 79 metabolites at risk of contaminating French

groundwater at concentrations above 0.1 µg/L according to Anses. Sales of these 39 high-risk substances in France amounted to 8,330 tons in 2021.

Water monitoring is largely insufficient, and pollution is therefore underestimated: Of the 79 metabolites we identified, only 23 were monitored in water in 2022/2023. In contrast, 56 metabolites at risk of exceeding the drinking water standard have not been monitored in groundwater or drinking water, according to our research. Thus, water pollution in France by pesticide metabolites is potentially vastly underestimated!



12 particularly high-risk metabolites not monitored: Among these 56 unmonitored metabolites, we identified 12 that pose particularly high risks, with predicted concentrations in groundwater that are very elevated. Eight of these metabolites come from active substances that are carcinogenic, mutagenic, reprotoxic (CMR), or endocrine disruptors. Among the 12 most concerning metabolites are TFA, a metabolite common to many fluorinated pesticides found in most drinking water in Europe[3]. TFA is considered by Germany as a probable reproductive toxin. Another example is DIPA, a persistent metabolite of the herbicide triallate, considered potentially genotoxic, with some uses leading to calculated concentrations in groundwater of 42 µg/L, which is 420 times above the drinking water standard!

But why aren't these metabolites being monitored?

According to Generations Futures, there could be several reasons:

- The methodology used to select which metabolites to monitor is not adequate. Among other things, the intrinsic properties of metabolites regarding their persistence in soils and their potential to leach into groundwater are not taken into account.
- There is likely a lack of communication between Anses, which is aware of the risks even before products are marketed, and the Ministry of Health's General Directorate of Health and Regional Health Agencies, which are responsible for the sanitary control of drinking water.
- The lack of analytical standards provided by industry for many metabolites slows down the necessary expansion of pesticide metabolite monitoring in water.

Our demands

Given these results, we propose immediate action by drastically improving the monitoring of metabolites in water, better selecting the substances to be monitored, and requiring industry to provide all necessary analytical standards. To protect the resource, the use of pesticides in water catchment areas should be gradually banned. Financial support is needed for farmers to help them transition to systems less reliant on pesticides.

"Our report shows that the monitoring of pesticide metabolites in French waters ignores many substances that are at risk of being present in water according to evaluation files. This greatly underestimates the risk of pollution!" says François Veillerette, spokesman. "It is shocking to see that the risks of groundwater contamination by metabolites are known before pesticides are marketed. Yet, the use of these pesticides is still approved, with full knowledge of the facts, and no monitoring is put in place, which is utterly scandalous!" adds Pauline Cervan. "Generations Futures calls for the swift implementation of an action plan to improve the monitoring of metabolites and to reinvigorate an ambitious policy to reduce pesticide use in France," conclude the association's representatives.

[1] https://sante.gouv.fr/IMG/pdf/2022_qualite_edch_pesticides.pdf

[2] <https://sante.gouv.fr/sante-et-environnement/eaux/eau>

[3] <https://www.generations-futures.fr/actualites/eau-potable-pfas-tfa/tfa-juillet-2024-v4/>