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A new study shows the widespread contamination of the French by glyphosate

As the European Union is getting ready to discuss once more the use of glyphosate, authorized until December 15 of this year [read], a study by a group of French scientists, published by in the specialised journal "Environmental Science and Pollution Research", measures the level of contamination of the French population by this particular herbicide that is also the most widely utilised.

Let's remind here that glyphosate was put on the market in 1974 under the trade name "Roundup", and is categorised as "probably carcinogenic" by the International Agency for Research on Cancer (IARC) and the World Health Organisation (WHO), because of the link established between this product and the Non-Hodgkin's Lymphoma (NHL). Let's also remind that, despite its good water solubility and its partial degradation by some microorganisms present in soils [read], glyphosate can be accumulated in soils, creating environmental hazards [read] and, when it is leached by rain, it can be found in rivers and in the sea.

The conclusions of the study are very clear: **the contamination of the French population by glyphosate is widespread**.

This is not really a surprising result, given that France is the second pesticide consumer in Europe, and the seventh worldwide [read], and that glyphosate was detected in 53% of

food samples and in 87.5% of breakfast cereals analysed by the French NGO Générations futures [read in French], and in 100% of infant cereal samples [read in French].

Based on the analysis of 6848 samples collected in presence of a bailiff and examined by the German laboratory Biocheck, results obtained can be summarised in the following points:

- Confirmation of results already known:
  - Glyphosate was detected in 99.8% of tested people, measured in urine with a mean of 1.19 ng/ml (for the sake of comparison, let's remind here that the maximum allowed concentration of glyphosate in drinking water, in France, is of 0.1 ng/ml).
  - These results obtained for France are consistent with those from studies conducted elsewhere (Denmark 2017; Ireland 2018; Portugal 2021).
  - Highest rates were found for men, as already revealed by other research (Germany, 2017), and they decrease with age, a trend also observed earlier elsewhere (US, 2007 and 2020).
  - Highest concentration was detected for farmers, confirming several previous studies (US, 2004, 2007 and 2019; Ireland 2017 and 2018).

- Confirmation of suspected results:
  - Rates are lower for people consuming mainly organic or other special foods, as mentioned by several authors (France, 2019; US, 2020).
  - Among farmers, the highest rates are detected with winegrowers, a result to be linked to the intensive use this herbicide in vineyards [read].
  - Higher rates of presence are found with smokers, probably related to the fact that glyphosate is employed as desiccant little before tobacco harvest.

- New results:
  - The concentrations observed are higher in spring and in summer, which corroborates studies showing the same phenomenon at the surface of fresh water and groundwater.
  - The concentration is higher for people drinking tap water, natural spring water or water from wells (this does not concern bottled water, whether labelled spring or mineral water).
  - The rates are lower for people drinking filtered water.

Let's hope that these results will help to ban the use of glyphosate in Europe, not so much for replacing it by another molecule - as suggested by European farmer unions like the French FNSEA - but by cultivation techniques that will contribute to reducing competition between weeds and crops without polluting soil and water and contaminating consumers. Indeed, it is quite unlikely that another molecule, even very efficient, could be used for a targeted action that would have no negative effect other than what it is supposed to have on weeds [read].

Let's note here the recommendations made by the "Commission nationale Déontologie et Alertes en santé publique et environnement" (DAspe) (National Commission of Ethics and Warning in Public Health and Environment) regarding the evaluation and renewal of the authorisation of glyphosate in Europe, that suggest the establishment of a panel of independent specialists in ethics of scientific expertise in the field of environment and public health, mandated for the analysis of data available on glyphosate and on the risk of its use [read in French].

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To know more :

- Grau, D., Grau, N., Gascuel, Q. et al. Quantifiable urine glyphosate levels detected in 99% of the French population, with higher values in men, in younger people, and in farmers. Environ Sci Pollut Res. 2022.
- WorldAtlas,Top Pesticide Using Countries, 2021.
- Générations Futures, Résultats exclusifs de recherche de glyphosate dans des aliments vendus en France, 2017 (in French).
- ANSES, Étude de l'alimentation totale infantile - Tome 2 – Partie 4 - Résultats relatifs aux résidus de pesticides - Rapport d'expertise collective, Agence Nationale de Sécurité Sanitaire Alimentation, Environnement,Travail, 2016 (in French).

Selection of past articles on hungerexplained.org related to the topic:

- Mexico, first Latin American country to ban GMO maize and glyphosate, 2021.
- Pesticides: an issue that poisons our agriculture, 2020.
- The global food crunch: myth or reality? 2018.
- Production and use of pesticides: an infringement on the rights to food and health, 2017.
- Food, Environment and Health, 2017.