



## Are GM crops really safe? Europe still needs to be convinced. Notwithstanding political inconsistencies, scientific evidence urges to reconsider glyphosate safety

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**Citation:** Bizzarri, M, 2017, "Are GM crops really safe? Europe still needs to be convinced. Notwithstanding political inconsistencies, scientific evidence urges to reconsider glyphosate safety", *Organisms. Journal of Biological Sciences*, vol. 1, no. 2, pp. 9- 10. DOI: 10.13133/2532-5876\_2.3.

### Introduction

EU member states on 9 November again failed to agree on a license renewal period for the controversial herbicide glyphosate, used in the Monsanto product Roundup, despite the European Food Safety Authority (Efsa) advice<sup>1</sup>. Glyphosate is the most widely produced herbicide in the world. It is used extensively in agriculture and is also found in garden products in many countries. The chemical is an ingredient in Monsanto's weed killer product Roundup, and glyphosate has become more popular with the increasing market share of crops that are genetically engineered to be tolerant to the herbicide.

Out of the 28 EU member states, 14 voted in favor of the five-year proposal, including the Czech Republic, Denmark, Estonia, Ireland, Spain, the Netherlands, Slovenia and United Kingdom.

On the other hand, nine EU member states voted against the proposal, namely Belgium, Greece, France, Croatia, Italy, Cyprus, Luxembourg, Malta, and Austria.

Some European governments welcomed the decision as a "good outcome for our health and environment", as the Efsa report was deemed 'unreliable'. Yet, unexpectedly, Germany has reconsidered his decision

in these very days, and ultimately EU approved for a 5-years renewal of glyphosate license. Sadly.

Efsa claimed, "every scientific study is scrutinized for relevance and reliability by EU risk assessors based on the evidence contained within the study". Yet, dozens of pages of the paper are identical to passages in an application submitted by Monsanto on behalf of the Glyphosate Task Force (GTF), an industry body led by the company<sup>2</sup>. Indeed, the Efsa paper repeats descriptions – and analyses – verbatim from the 2012 GTF review, without addressing some major concerns raised by previous, independent, scientific studies. European agencies have come to the conclusion that glyphosate is harmless to humans. An evaluation that appears now 'copied' by industry-provided studies, the content of which cannot be publicly consulted. Ultimately, the EU report entailed chiefly toxicological studies custom-built by the herbicide manufacturers in the 1980s-90s, and never published. A common practice in US. Nevertheless, unacceptable in Europe.

Namely, the Efsa report fails to mention the warning from the World Health Organization's International Agency for Research on Cancer, although the WHO

<sup>1</sup> <https://euobserver.com/environment/139823>

<sup>2</sup> <https://www.theguardian.com/environment/2017/sep/15/eu-report-on-weedkiller-safety-copied-text-from-monsanto-study>



statement, released since March 2015, provides compelling evidence to classify glyphosate as a possible carcinogen (Cressey, 2015).

Moreover, the International Agency for Research on Cancer (IARC) has classified glyphosate, as a “probable human carcinogen” (Guyton, 2015). Those classifications were based on comprehensive assessments of the toxicological and epidemiologic literature that linked both herbicides to dose-related increases in malignant tumors, and associated glyphosate to an augmented incidence of non-Hodgkin’s lymphoma in humans.

These studies have been censured by Monsanto, which has called them untrustworthy and irrelevant, studies that Efsa has chosen to ignore in its assessment.

We did not wish to investigate if this has because negligence or intent. What matters is that it is completely unacceptable for government bodies to pass off industry analysis as their own. In addition, the bias of this kind of ‘objective reports’ calls into question the entire EU pesticide approval process. If regulators rely on the industry evaluation without doing their own assessment, the decision whether pesticides are deemed safe or not is effectively in the industry’s hands. Again, this is unacceptable.

Indeed, concern for human health and ecological equilibrium has been raised so far by hundreds studies (Bizzarri, 2012).

Even the most ‘favorable’ reports – as such those released by the National Academy of Sciences in 2000 and 2004 (NAP, 2004), while claiming that GM crops pose no specific hazards to human health, outlined that GM crops have the ‘potential’ to foster the ‘unanticipated’ synthesis of toxins or allergens, thus adversely affecting the quality of food. Those reports recommended development of new risk-assessment tools and strict post marketing surveillance. This advice has largely been disregarded.

Moreover, in their majority, positive reports on GMO safety are intrinsically flawed.

“These studies predated current knowledge of low-dose, endocrine-mediated, and epigenetic effects and were not designed to detect them. The risk assessment gave little consideration to potential health effects in infants and children, thus contravening federal pesticide law. It failed to consider ecologic impact” (Landrigan, 2015).

Furthermore, by encouraging liberal use of glyphosate, were spurring the evolution of herbicide resistance in many weeds. Twenty-four glyphosate-resistant weed species have been identified since Roundup-tolerant

crops were introduced in 1996, and the problem has escalated since then (Thompson, 2012). As a result, glyphosate-resistant weeds have now been found in 18 countries worldwide, with significant impacts in Brazil, Australia, Argentina and Paraguay. Consequently, Monsanto has changed its stance on glyphosate use, now recommending that farmers use a mix of chemical products and cultivating.

Besides the intrinsic contradictions in European politics, the debate around glyphosate security will only be deepened by recent decisions. Thus allowing us to reconsider the controversy as well as many aspects of the safety of plant biotechnology.

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