

February 2016

Dear Sir/Madam

Re. Glyphosate in bread

I am writing on behalf of 20,912 people who have signed a petition <http://www.soilassociation.org/Portals/0/glyphosate/GlyphPetitionSig.pdf> expressing deep concern about the presence of the weed killer glyphosate in British bread. Our key message to you is that in the light of new scientific evidence, the European Food Safety Agency have called on Member States to assess the safety of products containing glyphosate, and until that is done, you cannot know if the glyphosate products used on much of the wheat you use are a danger to human health.

The Soil Association have previously written to you and others on two occasions about this issue, and I am grateful to you, Sainsbury's, Waitrose, Co-op, Warburtons, the National Association of British and Irish Millers and Allied Mills for the replies or comments to these letters, as well for my meeting with the Federation of Bakers.

You will be aware that - amid considerable controversy and some confusion - the European Food Safety Authority (EFSA) recently concluded that glyphosate is not a hazard to human health at levels found in foods. This conclusion was not a surprise to us. This review differed substantially from the review carried out by the World Health Organisation's International Agency for Research Against Cancer (IARC) which came to a different conclusion, because:

- The EFSA review was conducted by anonymous experts and relied heavily on secret information from the chemical industry which has not been made publically available – as opposed to peer-reviewed, publically available scientific studies assessed by a known panel of experts at the IARC.
- The EFSA review only examined the impacts of the single active ingredient glyphosate, as opposed to what farmers and gardeners actually use; glyphosate based herbicide products.

What is both surprising and important is that EFSA admitted these failings clearly for the first time. In fact they admit that actual glyphosate based herbicide products may indeed be damaging to our health due to the presence of additional ingredients that may be toxic in their own right or may interact with glyphosate to increase its toxicity. The EFSA said: *"...some studies suggest that certain glyphosate-based formulations may be genotoxic (i.e. damaging to DNA), others that look solely at the active substance glyphosate do not show this effect. It is likely, therefore, that the genotoxic effects observed in some glyphosate-based formulations are related to the other constituents or co-formulants"*.

The EFSA have therefore asked Member States to investigate these studies and assess whether actual glyphosate products are safe: *"EFSA proposes that the toxicity of each pesticide formulation and in particular its genotoxic potential should be further*

considered and addressed by Member State authorities while they re-assess uses of glyphosate-based formulations in their own territories”

Source for both quotes:

http://www.efsa.europa.eu/sites/default/files/corporate_publications/files/efsaexplainsglyphosate151112en.pdf

This has not yet been done by the UK authorities. Until it is, you cannot know if the glyphosate products used on much of the wheat you use are a danger to human health.

Research from last year has already shown that glyphosate based herbicides can be up to a thousand times more toxic than glyphosate.

In addition, the latest review of studies assessing the health impacts of ultralow doses of glyphosate based products (at levels equivalent to levels of glyphosate found in UK bread samples), raises serious and immediate concern about the glyphosate regularly found in UK milled wheat and bread.

Two new studies strongly suggest that long-term exposure to ultra small amounts of glyphosate - below the Maximum Residue Level allowed and well within the levels found in UK bread samples - do have an adverse impact on our health.

In August 2015 a peer-reviewed study '[Transcriptome analysis reflects rat liver and kidney damage following chronic ultra-low dose Roundup exposure](#)' (Environ Health, 2015 Aug; 14(1): 70) was published. This found rats exposed to Roundup equivalent to a daily intake of 4 ng/kg bw/day of glyphosate over two years had confirmed liver and kidney damage linked to altered gene expression. The lead scientist, Dr Michael Antoniou of King's College said the results: *"suggest that regulators should re-consider the safety evaluation of glyphosate-based herbicides"*.

In October 2015 a peer-reviewed literature review was published '[Potential toxic effects of glyphosate and its commercial formulations below regulatory limits](#)' (Food Chem Toxicol, 2015 Oct; 84: 133-153) This highlighted toxic effects below regulatory limits in around 30 studies, including studies performed by chemical companies on their own products. The review revealed a *"coherent body of evidence indicating that GlyBH [glyphosate based herbicides such as Roundup] could be toxic below the regulatory lowest observed adverse effect level for chronic toxic effects"* and that these levels are *"associated with wide-scale alterations of the liver and kidney transcriptome that correlate with the observed signs of hepatic and kidney anatomorphological and biochemical pathological changes in these organs"*.

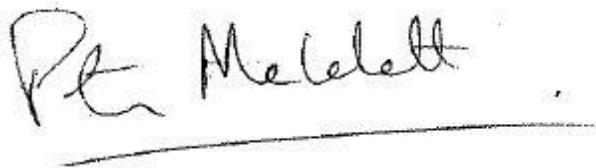
According to UK Government data, wheat and in particular the daily consumption of bread is the main source of glyphosate contamination in UK food. Up to a third of samples of UK bread tested by the Department for Environment, Food and Rural Affairs' Expert Committee on Pesticide Residues in Food (PRiF) contain glyphosate at levels average levels of around 0.2mg per kg – levels within that found to cause organ damage in the studies cited above.

As I have said, recent research has also found glyphosate based products are more toxic than glyphosate. A study published in 2014 which tested pesticide products compared with pure active ingredients on 3 human cell lines found that 8 out of 9 formulations of Roundup were up to one thousand times more toxic '[Major Pesticides Are More Toxic to Human Cells Than Their Declared Active Principles](#)' (BioMed Research International, 2014 Feb; 2014: 8).

We are therefore again urging you to ensure that none of the flour or bread products that you manufacture or sell to British people contains any glyphosate at all.

In view of the serious human health implications, the Soil Association is making this letter available to the public.

Yours sincerely,

A handwritten signature in black ink that reads "Peter Melchett". The signature is written in a cursive style and is positioned above a solid horizontal line.

Peter Melchett

Policy Director, Soil Association