

## submissions

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**From:** Christine Higgs [REDACTED]  
**Sent:** Wednesday, 17 July 2013 3:02 PM  
**To:** submissions  
**Subject:** RE: Application number A1081 - Food derived from Herbicide-tolerant Soybean Event SYHT0H2

To the Food Standards Australia and New Zealand,

I am writing to you regarding the recent application from Bayer and Syngenta to introduce the import of GM Soy that is developed to be resistant to Glufosinate-ammonium and Mesotrione.

I ask that you deny permission to this application based on insubstantial evidence on the safety of these chemicals and the effects of this genetic modification on animals, people and the environment.

There is no significant evidence to prove that the consumption and use of Glufosinate-Ammonium or Mesotrione is safe. Terms used in the scientific findings are only 'likely' or 'unlikely' and cannot be the basis of a decision that affects our health and the effect on our biodiversity in Australia and New Zealand. The toxic effect on animals is present and proven. How that translates to human beings cannot be determined until the effects are seen, and is too late. According to the Sigma-Aldrich Material Data Safety Sheet, Glufosinate-Ammonium and Mesotrione are both hazardous chemicals and should be avoided via ingestion or to be released into the environment.

The people, animals and environment of Australia and New Zealand should not be used as guinea pigs for a global experiment for agrochemical companies. Neither should we endorse other countries to produce them by importing their products, as you will see from the references that occupational exposure is not included in the US Environmental Protection Agency's safety testing. We are directly endorsing the risk of harming farmers in other countries as well.

Glufosinate produces neurotoxic effects and various studies have proved that these effects occur on humans, and animals including birth defects.

A direct quote from the book Toxicological Sciences by Oxford Journals regarding the long term effects of GLA:

'Although acute effects of GLA exposure are well documented (Nakaki et al., 2000; Watanabe and Sano, 1998), results of long-term exposure at low doses remain largely unknown. It has been shown that pesticides of the organophosphate family that includes GLA induce cognitive and neurobehavioral impairments in farm workers (Farahat et al., 2003; Fiedler et al., 1997; Roldan-Tapia et al., 2005). Determination of possible harmful side effects of GLA is a major health concern for people permanently or quasi permanently exposed to the compound.'

An excerpt from a fact sheet on Glufosinate-Ammonium from the Pesticide Action Network in the UK regarding adverse health effects, leaching into water and soil and dependency on herbicide use:

'...studies demonstrate that it causes adverse health effects in animal studies, is likely to leach to drinking water sources, could increase nitrate leaching, and is toxic to beneficial soil micro-organisms. The introduction of glufosinate resistant crops and a greater exposure to glufosinate increases the likelihood of these harmful effects in humans and the environment. Glufosinate resistance will tend to intensify and increase dependency on herbicide use rather than lead to significant reductions.'

Please see another fact sheet on Glufosinate from the Center for Environmental Risk Assessment: <http://www.cera-gmc.org/static/htmlfiles/glufosinate.htm>

Regarding the effects of Mesotrione, I have included direct quotes from the Final Rule of the US Environmental Protection Agency of the application from Syngenta to use Mesotrione tolerant Soy beans.

'Prenatal and postnatal sensitivity. There is quantitative evidence of increased susceptibility of the young in the oral prenatal developmental toxicity studies in rats, mice, and rabbits and in the multi-generation reproduction study in mice.'

'Long-term aggregate risk was not calculated'

'Section 408(b)(2)(A)(ii) of FFDCa (Federal Food, Drug and Cosmetic Act) [[Page 67120]] defines ``safe'' to mean that

“there is a reasonable certainty that no harm will result from aggregate exposure to the pesticide chemical residue, including all anticipated dietary exposures and all other exposures for which there is reliable information.” This includes exposure through drinking water and in residential settings, but does not include occupational exposure.’

The fact that this herbicide tolerant strain is used in various other countries is not a testament to its safety but a confirmation of the lack of due care from the agro-chemical companies who sell them and the relevant governing bodies who allow their use.

Please do not take part in the negligence and violation of these companies and take into account the voice of Australian and New Zealand citizens and deny permission for this strain of GM soya into our countries.

Sincerely,

Christine Higgs

References:

<http://toxsci.oxfordjournals.org/content/111/2/321.full.pdf+html>

<http://www.pan-uk.org/pestnews/Actives/glufosin.htm>

<http://www.gpo.gov/fdsys/pkg/FR-2009-12-18/html/E9-30034.htm>

<http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=AU&language=en&productNumber=45520&brand=FLUKA&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Finterface%3DAI%26term%3Dglufosinate%26ammonium%26lang%3Den%26region%3DAU%26focus%3Dproduct%26N%3D0%2B220003048%2B219853060%2B219853286%26mode%3Dmatch%2520partialmax>

<http://www.sigmaaldrich.com/MSDS/MSDS/DisplayMSDSPage.do?country=AU&language=en&productNumber=33855&brand=FLUKA&PageToGoToURL=http%3A%2F%2Fwww.sigmaaldrich.com%2Fcatalog%2Fsearch%3Finterface%3DAI%26term%3Dmesotrione%26lang%3Den%26region%3DAU%26focus%3Dproduct%26N%3D0%2B220003048%2B219853060%2B219853286%26mode%3Dmatch%2520partialmax>