

26 September 2017

Our ref: 02982 / 2017

DEPARTMENT OF THE ENVIRONMENT POSITION STATEMENT

GLYPHOSATE-BASED HERBICIDES AND AUTHORISATION FOR USE IN JERSEY

The Department for the Environment is aware of concerns regarding the use of glyphosatebased herbicides to control weeds in agricultural and amenity areas, parish byroad verges and private gardens.

These concerns include; potential adverse impacts on pets, water pollution, glyphosate residues in or on foodstuffs and the general principle of using herbicides to control plant/weed growth.

The foremost concerns are linked to the March 2015 meeting of the World Health Organisation's (WHO) subsidiary, the International Agency for Research on Cancer (IARC), which classified glyphosate as a Class 2A carcinogen 'probably carcinogenic to humans'. From this, and from concerns that glyphosate has endocrine disrupting properties, it is perceived by some that glyphosate is highly carcinogenic and poses a direct risk to short- and long-term health. This has led to requests for the current authorisation for use of glyphosate-based herbicides in Jersey to be revoked with immediate effect.

In relation to these concerns, it is appropriate to outline the Department of the Environment's position.

- The IARC working group's March 2015 decision was based on its monograph procedure which reviewed selected scientific literature the group did not undertake any scientific research itself.
- The IARC group's classifications are based on hazard and not risk. The 2A classification relied heavily on a particular study (Seralini et al, 2012) on rats exposed to glyphosate at 100 times normal exposure and not at 'normal' exposure rates.
- The published Seralini et al. paper was subsequently found to be flawed for a number of reasons (European Food Safety Authority (EFSA), 2015) and was retracted by the publishing journal, The Journal of Food and Chemical Toxicology, in November 2012.
- Since 2015, the IARC class 2A classification of glyphosate has been criticised and contradicted by an overwhelming number of regulatory authorities and other experts around the world. Re-evaluations of the scientific literature considered by IARC have been undertaken by:

- 1. European Chemical Agency Committee for Risk Assessment, (2017) "scientific evidence did not meet the criteria to classify glyphosate as a carcinogen, as a mutagen or as toxic for reproduction."
- European Food Safety Authority (2015) "glyphosate is unlikely to pose a carcinogenic hazard to humans and the evidence does not support classification with regard to its carcinogenic potential according to Regulation (EC) No 1272/2008."
- Reviews of glyphosate undertaken by three other programs within the WHO (International Program on Chemical Safety, Core Assessment Group, Guidelines for Drinking Water Quality) state glyphosate does not present a cancer or human health risk when used in accordance with the label instructions.
- 4. United States Environmental Protection Agency (2016) "Glyphosate is classified as "not likely to be carcinogenic to humans".
- 5. Canadian Pest Management Regulatory Agency (2017) "Glyphosate is not genotoxic and is unlikely to pose a human cancer risk."
- 6. In addition, the UK government's Health and Safety Executive says this about why glyphosate is not banned in the UK –

"The Government feels that the regulatory process for authorising plant protection products (PPP) is a robust system. The authorisation process takes into account all scientific knowledge available. All products which contain glyphosate must be individually authorised in Member States. Applicants for authorisation must show that their products are effective, humane and pose no unacceptable risks to people or the environment. If their products were to pose such risks, they would not be authorised; or if such effects were discovered later, they would be withdrawn. Neither the EU's assessment of glyphosate as an active substance nor the UK's assessments of applications for authorisation of products which contain it have found the substance unacceptable for use."

- No regulatory agency in the world considers glyphosate to be a carcinogen at normal exposure limits, including ingestion in food and water, breathing via spray drift or exposure to residues on plant surfaces.
- In respect of the potential endocrine disrupting properties of glyphosate, the EFSA have concluded that there is no evidence of this (EFSA, 2017).
- A long-term study of 57,000 glyphosate-exposed agricultural workers in the US found no association between glyphosate exposure and any type or sub-type of cancer (De Roos *et al*, 2005; Sorahan, 2015).
- Glyphosate is used locally to kill the weed bank before ploughing and planting of potato crops and so reduces reliance on other herbicides which are far more toxic and polluting. It also replaces the practice of 'breezing' and so reduces soil erosion and run-off. There have been no reported incidences of ill-health in cattle that have grazed fields treated with glyphosate.
- Departmental records covering the last 10 years show that there have been no findings of glyphosate residues in or on locally grown vegetables and fruit.
- Results from regular analyses to detect glyphosate in surface waters reveal only very occasional findings. For example, there was a single detection in 2017 but levels were below the EU Water Directive standard of 0.1µg/l.

Conclusion

The decision to authorise (or not) a pesticide for use in Jersey ultimately rests with the Minister. Recommendations and advice are provided by highly trained and experienced scientists in the Department of the Environment. Such recommendations and advice are based on considerations of the latest peer-reviewed, evidence-based science and reports from regulatory agencies such as those listed in this document.

In respect of individual pesticide products, some factors considered by the department when deciding if a product is suitable in a Jersey context include (but are not limited to):

- toxicity to human and other life forms
- efficacy
- environmental fate
- cost-benefit analyses

This 'weight of evidence' approach has led the Department of the Environment to conclude that a ban on the use of glyphosate in Jersey because of health risks is unreasonable and unjustified and that a recommendation for the <u>continuing</u> <u>authorisation</u> for use of glyphosate-based herbicides in Jersey in accordance with the product's guidelines, is appropriate.

Stephen Thompson BSc MSc DIC MBPR Plant Pathologist / Laboratory manager & Pesticide Advisor

References:

De Roos A, Blair A, Rusiecki J, Hoppin J, Svec M, Dosemeci M, Sandler D, Alavanja M. 2005, *Cancer Incidence among Glyphosate-Exposed Pesticide Applicators in the Agricultural Health Study*. Environmental Health Perspectives, Vol 113, No. 1. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1253709/pdf/ehp0113-000049.pdf

European Chemicals Agency. 2017. Committee for Risk Assessment RAC Opinion proposing harmonised classification and labelling at EU level of Glyphosate. https://echa.europa.eu/documents/10162/2d3a87cc-5ca1-31d6-8967-9f124f1ab7ae

European Chemicals Agency. 2017. Press Release – Glyphosate not classified as a carcinogen by ECHA. ECHA/PR/17/06. https://echa.europa.eu/-/glyphosate-not-classified-as-a-carcinogen-by-echa

European Food Safety Authority (EFSA). 2017. *Conclusion on the peer review of the pesticide risk assessment of the potential endocrine disrupting properties of glyphosate*. EFSA Journal 2017;15(9):4979, 20 pp. https://doi.org/10.2903/j.efsa.2017.4979

European Food Safety Authority (EFSA). 2015. *Conclusion on the peer review of the pesticide risk assessment of the active substance glyphosate.* EFSA Journal 2015;13(11):4302. http://onlinelibrary.wiley.com/doi/10.2903/j.efsa.2015.4302/epdf

Food and Chemical Toxicology. 2014. *Retraction notice to "Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize" [Food Chem. Toxicol. 50 (2012) 4221-4231].* https://www.ncbi.nlm.nih.gov/pubmed/24490213

Government of Canada, Pest management Regulatory Agency. 2017. Re-evaluation Decision RVD2017-01, Glyphosate. https://www.canada.ca/en/health-canada/services/consumer-product-safety/reports-publications/pesticides-pest-management/decisions-updates/registration-decision/2017/glyphosate-rvd-2017-01.html

Séralini GE, Clair E, Mesnage R, Gress S, Defarge N, Malatesta M, Hennequin D, de Vendômois JS. 2012. *Long term toxicity of a Roundup herbicide and a Roundup-tolerant genetically modified maize*. Food and Chemical Toxicology 50 (2012) pp. 4221-4231. http://www.gmoseralini.org/wp-content/uploads/2012/11/GES-final-study-19.9.121.pdf

Sorahan T. 2015, *Multiple Myeloma and Glyphosate Use: A Re-Analysis of US Agricultural Health Study (AHS) Data.* International Journal of Environmental Research and Public Health, 12, pp. 1548-1559. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4344679/pdf/ijerph-12-01548.pdf

United States Environmental Protection Agency. 2016. *Glyphosate Issue Paper: Evaluation of Carcinogenic Potential*. <u>https://www.epa.gov/sites/production/files/2016-09/documents/glyphosate_issue_paper_evaluation_of_carcincogenic_potential.pdf</u>

World Health Organisation International Agency for Research on Cancer (IARC). IARC Monographs, Glyphosate. In, *Some Organophosphate Insecticides and herbicides Volume 112.* pp. 321-399. http://monographs.iarc.fr/ENG/Monographs/vol112/mono112.pdf

World Health Organisation / Food and Agriculture Organisation of the United Nations. 2016. Joint FAO/WHO Meeting on Pesticide Residues. Summary Report. http://www.who.int/foodsafety/jmprsummary2016.pdf?ua=1

World Health Organisation / Food and Agriculture Organisation of the United Nations. 2016. Pesticide residues in food 2016. <u>http://apps.who.int/pesticide-residues-jmpr-database/Document/249</u>

World Health Organisation. 2017. Guidelines for Drinking-water Quality. 4th Edition. Glyphosate and AMPA p.374. http://apps.who.int/iris/bitstream/10665/254637/1/9789241549950-eng.pdf