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27 September 2016

Advocate Mabedle Lawrence Mushwana  
Chairperson: South African Human Rights Commission and,  
Commissioners of the South African Human Rights Commission

Ms Lindiwe Khumalo  
Chief Executive Officer: South African Human Rights Commission  
Braampark Forum 3  
33 Hoofd Street  
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Johannesburg  
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via email [jhollenbach@sahrc.org.za](mailto:jhollenbach@sahrc.org.za)

Dear Ms Khumalo

**Re: The use of glyphosate for the cultivation of genetically modified agricultural crops and the risk of cancer in South Africa.**

The Cancer Association of South Africa (CANSA) supports the appeal by the Honourable Minister Prince Mangosuthu Buthelezi, Member of Parliament, Mr Toren Wing Chairperson and Mr Brian Ras !Kora Damonse, General Secretary of the South African Doctors Union.

This matter has been of great concern to CANSA since the International Agency for Research in Cancer (IARC) published the overall evaluation of Glyphosate (commonly known as Roundup) on 29 July 2015 that classifies it as probably<sup>1</sup> carcinogenic to humans (Group 2A)<sup>2</sup>A list of peer reviewed studies that concludes the harmful effects of glyphosate to human and environmental health<sup>3</sup> showed that:

- There is strong evidence that glyphosate causes genotoxicity
- Overall, the mechanistic data provide strong evidence for genotoxicity and oxidative stress. There is evidence that these effects can operate in humans
- Severe or fatal human poisoning cases have been documented worldwide
- The Working Group noted that there were excesses reported for multiple myeloma in three studies, however they did not weight this as strongly as for Non- Hodgkin lymphoma (NHL)
- Case control studies in the US, Sweden and Canada reported increased risk for NHL associated with exposure to glyphosate

<sup>1</sup> [http://monographs.iarc.fr/ENG/News/Q&A\\_ENG.pdf](http://monographs.iarc.fr/ENG/News/Q&A_ENG.pdf)

<sup>2</sup> <http://www.thelancet.com/pdfs/journals/lanonc/PIIS1470-2045%2815%2970134-8.pdf>  
<http://monographs.iarc.fr/ENG/Monographs/vol112/>

<sup>3</sup> <http://gmofreeusa.org/research/glyphosate/glyphosate-studies/>



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The rationale is that there is strong evidence that glyphosate - formulations is genotoxic based on studies in humans in- vitro and studies in experimental animals. One study in several communities in individuals exposed to glyphosate formulations also found chromosomal damage in blood cells. Strong evidence<sup>4</sup> suggests that glyphosate-based formulations and aminomethylphosphonic acid can act to induce oxidative stress based on studies in experimental animals and in studies in humans in vitro.

Evaluation and critical review of evidence by IARC Carried out by a Working Group of independent international experts who reviewed four types of data:

- in situations in which people are exposed to an agent
  - epidemiological studies on humans exposed to an agent
  - experimental studies on cancer in lab animals
  - studies on how cancer develops in response to an agent (scientific evidence on cancer mechanisms)
- In **Group 2A** there is usually convincing evidence that the agent **causes cancer in lab animals** and **some evidence** it could cause **cancer in humans**

CANSA accepts the finding of a positive association between glyphosate exposure and NHL.

Glyphosate is widely used in South Africa and has been found in bread flour and maize meal. The use of glyphosate - an active ingredient in certain herbicides, which is used on genetically modified crops - has been growing. According to the African Centre of Biodiversity, half of South Africa's maize crop and 100% of the soya<sup>5</sup> crop is genetically modified, meaning it has to be grown with the use of glyphosate. According to a Report "Assessing the Value of Glyphosate in the South African Agricultural Sector" by the Department of Agricultural Economics, Extension and Rural Development, University of Pretoria, a total of 23 253 million litres of glyphosate at a cost of R1 008,9 million was used in South Africa during 2012. This poses an enormous risk for human health and the risk for cancer. Many countries have banned the use of glyphosate including Sri Lanka.<sup>6</sup>

CANSA is currently exploring the possibility of co-funding a study to examine the relationship between glyphosate exposure in farm workers in South Africa and NHL incidence, to be conducted under the leadership of Prof Rees, Professor of Occupational Health at the University of the Witwatersrand and Head of Occupational Medicine and Epidemiology at the National Institute for Occupational Health (NIOH), with support from IARC. This is an indication of our concern regarding this matter, and our desire to contribute to informing the debate on this important matter in South Africa.

CANSA engaged with MONSANTO in 2015 and they accepted our Fact Sheet on Glyphosate after we addressed concerns on the issue with them. We are also collaborating with the Africa Centre for Biodiversity to advocate for the Department of Agriculture, Forestry and Fisheries to re-examine the

<sup>4</sup> Schinasi L, Leon ME. Non-Hodgkin Lymphoma and Occupational Exposure to Agricultural Pesticide Chemical Groups and Active Ingredients: A Systematic Review and Meta-Analysis. *International Journal of Environmental Research and Public Health*. 2014;11(4):4449-4527. doi:10.3390/ijerph110404449.

<sup>5</sup> <http://www.africabio.com/value-of-glyphosate-in-sa-agriculture/>

<sup>6</sup> Jayasumana C, Paranagama P, Agampodi S, Wijewardane C, Gunatilake S, Siribaddana S. Drinking well water and occupational exposure to Herbicides is associated with chronic kidney disease, in Padavi-Sripura, Sri Lanka. *Environmental Health*. 2015;14:6. doi:10.1186/1476-069X-14-6.



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conditions of approval of glyphosate in South Africa with the objective of banning importation as it increases the risk of cancer for the population.

CANSA urges the South African Human Rights Commission to investigate human rights in respect of genetically modified food consumption and the utilisation of the herbicide glyphosate in the cultivation of major South African crops.

We thank you for your attention to our request.

Yours Sincerely



**ELIZE JOUBERT**  
**CHIEF EXECUTIVE OFFICER**



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