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25th September 2012



**Re: Immediate banning of all Roundup Ready maize from cultivation and import in South Africa**

Dear Minister Joemat-Pettersson,

We, the undersigned, write to you in light of the recent shocking findings of a two year rat feeding study concerning the safety of Monsanto's genetically modified (GM) Roundup-Ready maize variety. The study, published this week in the peer-reviewed journal of Food and Chemical Toxicology, was led by Professor Gilles-Eric Séralini of the University of Caen, France. Up until now animal feeding trials, which regulators the world over rely on for GMO risk assessment, have typically been industry sponsored and only go as far as 90 days. This gives no indication of the long term effects of consuming GM food; with no data there is simply no way to verify this. However, the new study led by Professor Séralini, which lasted for 2 years, is a first in this regard. The results make grim reading:

- All groups fed on GM maize diets had higher mortality rates (up to 50% of males, and 70% for females) than the control groups fed on non-GM equivalents (30% and 20% for males and females respectively).
- In female groups, there were 2 -3 times more premature deaths in all groups fed on GM diets than the non-GM control groups.
- By the beginning of the 24<sup>th</sup> month of the study, 50-80% of females fed GM diets had developed tumours, compared to 30% in the female control group.
- In males, liver congestion and premature cell death were 2.5 – 5.5 times higher than in the control groups.
- Further, groups fed water with traces of Roundup formulations below officially set safety limits displayed severe disturbances in the liver, kidneys and mammary glands.

Naturally Monsanto, and the rest of the biotechnology industry, will deny these findings. However, we need to look at Monsanto's record. From its chemical plant in Anniston, Alabama, Monsanto discharged toxic waste into local streams for nearly 40 years. A Washington Post investigation revealed that Monsanto had full knowledge of the toxic effects of PCBs for over 13 years before halting its production in 1977. In 1996 the Attorney General of the State of New York found Monsanto to be engaging in "repeated and persistent illegal conduct" by engaging in "false and

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misleading advertising” for its Roundup herbicide brand. In 2009 France’s Supreme Court ruled that Monsanto had falsely advertised Roundup as “biodegradable” and claimed that it “left the soil clean”. Here in South Africa, the Advertising Standards Authority has twice found Monsanto guilty of making unsubstantiated claims over the safety of genetically modified food.

One may ask, in light of the above, ‘why aren’t North Americans dropping like flies’ (to quote an Australian professor’s response to the findings). Put simply, because they are not eating it. The vast majority of GM maize grown in the USA is grown to produce animal feed and bio-ethanol. What little remains that enters the food chain is impossible to detect, because there is no mandatory labelling of GM food in the USA.

In South Africa on the other hand, things are different. Over 70% of our maize, the staple food of millions, is genetically modified. In no other country do humans consume GMOs in such quantities. The Roundup Ready maize variety used in the study (also known as NK 603) was approved for human consumption ten years ago in South Africa. After a slow uptake by farmers it has, for the last two seasons, been planted on nearly 1 million hectares. This trend looks set to continue, as over 660,000 kg of NK 603 seed has been imported this year. To re-iterate, a maize variety that accounts for 40% of our national crop has just been shown to cause tumours and liver and kidney damage in laboratory rats.

Our own GMO regulations, paraphrasing the Precautionary Principle set out in the 1992 Rio Declaration on the environment and development, stipulate that a lack of scientific knowledge or scientific consensus shall not be indicative of an absence of risk. How prescient, yet how overlooked this principle has been. It appears that far from an absence of risk, the greater problem has been the absence of looking. This should serve as a stark warning that we South Africans are staring down the barrel of a potential public health catastrophe. We urge the South African government to take the necessary steps to protect its citizens and ban all Roundup Ready maize from cultivation or import in the Republic. Further, a moratorium should be placed upon any new approvals until a rigorous assessment, along the lines of the Seralini study, has been conducted.

Signed



Mariam Mayet, Director, African Centre for Biosafety

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