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## **Africa: Dumping ground for rejected GE wheat**

As Monsanto Corporation battles declining profits, worldwide rejection of its genetically engineered (GE) products, and revelations over conflicts of interests in US courts, the African Centre for Biosafety (ACB) revealed that the giant transnational which is headquartered in the U.S plans to “dump” in South Africa what no one else wants-GE wheat.

On the 19<sup>th</sup> January 2004, Monsanto announced that it had approached the South African government for permission to import its genetically engineered (GE) wheat, known as Roundup Ready wheat [1], in an obvious pre-emptive bid to create a much needed market for its GE wheat, because none exists anywhere in the world.

GE wheat is not grown commercially anywhere in the world, including the U.S and Canada. This hugely disingenuous move by Monsanto belies the fact that Monsanto is in fact struggling to obtain commercial approval in the US and Canada, because of the technical difficulties in the genetic transformation of wheat [2]. It also comes at a time when GE wheat is facing massive rejection by consumers and farmers and adamant rejection by the major wheat importers throughout the world, including in Africa.

Importers from Algeria, Egypt, the European Union, Japan Korea, the Philippines, Indonesia and Malaysia have unequivocally and repeatedly stated that they would not accept GE wheat. The senior managing director of the Japanese Flour Millers Association comprising 36 large flour millers who have more than 90% of the total wheat market in Japan stated his position clearly: “Under the circumstances, I strongly doubt that any bakery and noodle products made from genetically modified wheat or even conventional wheat that may contain genetically modified wheat will be accepted in the Japanese market. World wheat supply has been abundant in recent years, and I don’t see why we have to deal with modified wheat...I believe the production of modified wheat at this time will be a very risk challenge for US producers.” [3]

In May 2003, the Canadian Wheat Board (CWB), a farmer-controlled grain marketing agency, called on Monsanto Canada to withdraw its application for an environmental safety assessment and put the interests of consumers first.

Wheat forms an important part of people’s diet in South Africa, and elsewhere in Africa, and represents an important source of carbohydrates. Monsanto proposes to mill the GE wheat for human consumption. However, the milling of the GE wheat will not break down DNA. Intact transgenic DNA may be present in food, thus gene transfer to microorganisms in the human digestive process is possible. In many GE wheat varieties being tested, genes conferring resistance to the antibiotics neomycin and kanamycin are present. If these genes are transferred to disease causing organisms they may compromise antibiotic treatment given to the people.

“South Africa’s regulatory system is not capable of assessing the health impacts of GMOs introduced into the food chain. Its safety assumptions are based on scientifically flawed concepts such as Substantial Equivalence [4] which leads necessarily to seriously flawed procedures and protocols for assessing health risks” said Mariam Mayet of the African Centre for Biosafety.

The import of GE wheat into South Africa, and thereafter, to other parts of Africa is unnecessary, dangerous and should be rejected out of hand by the South African government. “Why should Africans be the dumping grounds for risky food made in a laboratory that no one else in the world wants to eat?” asks Mayet.

Mariam Mayet

African Centre for Biosafety

#### Footnotes

[1] Monsanto has used the same genetic systems it uses in many of its other GE Roundup Ready crops to develop Roundup Ready wheat. Glyphosate acts by inhibiting a key enzyme in plant metabolism, 3-enolpyruvylshikimate-5-phosphate synthase (EPSPS). To make glyphosate resistant wheat, Monsanto have used both a glyphosate-tolerant EPSPS gene (CP4) from an Agrobacterium and another bacterial gene which codes for glyphosate reductase (GOX), which breaks down glyphosate.

[2] For instance, the genome of wheat is some 10-20 times larger than that of cotton or rice, making it much more difficult for reliable genetic modification. Transgene silencing, instability and rearrangements are common problems with GE wheat. See further, Patnai, D. & Khurana, P. (2001) Wheat biotechnology: a mini-review. EJB Electronic Journal of Biotechnology 4(2): 1-29 available at [www.ejb.org/content/vol4/issue2/full/4/](http://www.ejb.org/content/vol4/issue2/full/4/) and Repellin, A. et al (2001) Genetic Enrichment of cereal crops via alien gene transfer: New Challenges. Plant Cell, Tissue and Organ Culture 64: 159-183.

[3] Tsutomu Shigota, senior managing director of the Japanese Flour Millers Association, Cropchoice News [www.cropchoice.com](http://www.cropchoice.com), 2 February 2001.

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