



GE Rice Backgrounder

- **The Genetic Engineering (GE) Labelling Campaign in British Columbia, Greenpeace Canada**
- ***The Land Gives Me Rice, Rice Gives Me Life* photo exhibit.**
- **GE rice threat**

About rice

Rice has been grown around the world for over 10,000 years. It is cultivated in 113 countries. Half the world's population, roughly 3000 million people, rely on it as a staple food. The greatest biodiversity of rice is found in China's Yunnan Province where at least 75,000 known varieties are grown. Canada does not grow rice, but Canadians consume over 300,000 tons annually. Whether you are aware of it or not, rice is a key ingredient in a wide variety of processed foods ranging from baby food to the more obvious rice noodles.

All of this is under threat as the specter of genetic engineering (GE) creeps up on the planet's most important food crop.

Greenpeace and GE Labelling in British Columbia

Greenpeace opposes the release of GE organisms into the environment and into the food chain for the following reasons.

- The science of GE is crude and unpredictable and has serious negative implications for human health and the environment.
- The introduction of GE organisms by choice or by accident grossly undermines sustainable agriculture and in so doing, severely limits the choice of food we can eat.
- There have been over 140 documented cases of GE contamination in the past 10 years. Once GE organisms are released into the environment, it can be difficult or impossible to recall them.
- GE contamination, particularly in the centres of origin of agriculture, threatens biodiversity. Biological diversity must be protected and respected as the global heritage of humankind, and one of our world's fundamental keys to survival.
- GE, along with the commercial patenting of organisms, forces life into an unsustainable economic model, and gives corporations increased power over farmers and the land. Life is not an industrial commodity.

Canadians have a right to know what is in the food we eat. This will enable us to choose healthy and environmentally sustainable alternatives to GE and industrial agriculture. A

Stratcom poll released in January 2007 shows that 79 per cent of British Columbians want to know if their food contains GE ingredients and expect their provincial government to act before the next election. **Therefore, as an interim measure, Greenpeace Canada supports mandatory labelling of GE foods.**

In British Columbia, Greenpeace is leading a petition drive demanding that the BC government legislate mandatory labelling. This would be the first step towards a healthier food and agricultural system.

Ultimately, we would like to see sustainable, organic agriculture that supports biodiversity, gives more power to local communities and honours the traditional knowledge of farmers around the world. Sustainable agriculture connects farmers and urban consumers and creates sustainable relationships between the global North and the developing South.

***The Land Give Me Rice, Rice Gives Me Life* photo exhibit**

Sustainable agriculture is still being practiced in Yunnan, China, where in 2004 Greenpeace China organized The Road of Rice - The Ecological Agriculture Tour to promote and celebrate biodiversity and food security. As part of this tour, five traditional rice farmers from five different villages were given cameras and invited to document a year in the life of their villages, 2005 - 2006. Geng Yunsheng, a well known Yunnan-based photographer, was hired to oversee the project and select the photographs for a book distributed by Greenpeace China entitled *Rice Is Life* upon which this exhibit is based.

These photos depict rich and vibrant cultures built on sophisticated, traditional agricultural and ecological practices. What you do not see in these photos is that these communities are under attack by Western-based multinationals such as Bayer and Monsanto, which seek to monopolize the biodiversity stewarded by these people and undermine their way of life with crude and dangerous genetically engineered strains of rice.

The GE rice threat

In August 2006, the US Department of Agriculture announced that rice grown in the US had been contaminated by a strain of genetically engineered rice. The European-based multinational Bayer was responsible. Market reaction round the world was swift. US rice farmers lost millions as countries in Europe and Asia closed their doors or imposed restrictions on imports of American rice. Eventually, authorities determined that the contamination stemmed from field trials conducted five years earlier on a strain of rice resistant to the Bayer Company's brand herbicide called Liberty. Several dozen law suits continue in the US as the repercussions of this contamination unfold. In the meantime, at least two new incidents of contamination by other strains of GE rice have been discovered in the US, all from conducting field trials on GE rice. These incidents give forewarning of what could happen if the open commercialization of GE rice takes place.

GE rice in China

Although the ongoing efforts of Greenpeace and other environmental groups have so far been successful in blocking the open commercialization of genetically engineered rice in China, the threat remains. Field trials of experimental rice genetically engineered to produce its own insecticide (Bt63) wound up contaminating food exported to Europe. Greenpeace researchers, working with Friends of the Earth, found GE rice from China in processed food on store shelves in France, Germany and in the UK in September 2006. After this revelation, the Chinese government was forced to back off from its plan to develop a commercial GE rice industry. Vietnam and Thailand have signed a joint pledge to maintain their rice industries as GE free.

Greenpeace, along with Gene Watch UK, maintains a database of incidents of GE contamination worldwide. This year's report (www.gmcontaminationregister.org) highlights the global contamination of the rice industry by GE rice. After 142 other incidents of contamination in the past decade, GE rice from China and the US was found in 40 countries around the world in 2006. Untested GE rice poses enormous dangers to the health of humans and the environment.

Canada's position

The Canadian government has so far failed to protect Canadians from the dangers of GE rice. Firstly, Canada has no labelling in place, so Canadians do not know which of the thousands of products on store shelves contain GE ingredients. While labelling of GE food is mandatory in Europe, Russia, Australia and many other countries, including most recently South Korea, in Canada, voluntary labelling has not resulted in a single company opting to label its products as containing GE ingredients.

Secondly, the Canadian Food Inspection Agency hastily approved two strains of GE rice just weeks before the GE contamination was discovered. These strains of rice were approved without being thoroughly tested and despite the fact that many other countries around the world have expressed concerns about their impacts on health and the environment. Greenpeace is concerned that the approval had more to do with wanting to limit the potential liability of Bayer than about the safety of Canadians.

After the Bayer and Chinese GE rice contaminations, the Canadian government also failed to implement proper tests to ensure that our food supply remained free of unapproved GE rice. While other countries conducted rigorous tests, Canada responded with a four-month delay before tests even began. Even then, tests were conducted at a level that ensured that no illegal GE rice would be discovered. Eight months later, Canadians still do not know the effects on Canada's food supply.

GE health risks

In 2001, an expert panel convened by the Royal Society of Canada (RSC) released a report on GE foods and biotechnology. It was entitled, *Elements of Precaution: Recommendations for the Regulation of Food Biotechnology in Canada*. This cross-disciplinary panel was composed of the most eminent scientific experts in the country. Among its conclusions, it expressed concerns for “the prospect of serious risks to human health, of extensive irremediable disruptions to the natural ecosystems, or of serious diminution of biodiversity. ...Approval of products with these potentially serious risks should await the reduction of scientific uncertainty to minimum levels.” Unfortunately, the 58 recommendations of the Royal Society have not been implemented.

Some of the fears the RSC report have been realized with a new peer reviewed publication in the Archives of Environmental Contamination and Toxicology. The new study shows that a type of GE corn known as MON863 is toxic to rats. Most disturbingly, the study was based on a re-analysis of data Monsanto used to gain the approval of this strain of corn in Canada in 2003. This case highlights the dangers of a system without proper independent regulatory oversight. It also demonstrates some of the serious health risks posed by GE foods.

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