

Terminator Technology

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Sharratt<info@cban.ca><p>November 2009</p><p>Canada's Minister of Agriculture, Gerry Ritz, incorrectly told Chinese officials that Terminator seeds are used in Canada! This is false and leads us to question the Government's understanding of Terminator and commitment to the international moratorium. You can readCBAN's letter to the Minister</p><p>On November 5th, the Manitoba Coope- rator reported that the Ministers said he told Chinese officials that they need not fear Chinese farmers growing Canadian canola because these seeds will not grow. ? I assured them that with the varieties we have now, it's not going to work because they all have Terminator seeds in them... ? This is absolutely wrong as Terminator has never been field tested or commercialized anywhere in the world.</p><p>Apparently Canada's Minister of Agriculture does not know what Terminator technology is, does not know that there is an international moratorium on Terminator, and has not paid attention to the thousands of letters and postcards opposing Terminator sent by Canadians over the past 4 years.</p><p>The Minister's statement leads us to ask</p><p>: Why is the Minister not correctly informed about this highly controversial GM technology? What is the Government's true position on Terminator? Would the Conservative Government support the use of Terminator seeds if the technology was available?</p><p>Write to Hon. Gerry Ritz, Minister of Agriculture and Agri-

tested or commercialized. In 2006, Monsanto bought the company (Delta & Pine Land) that owns Terminator greenhouse research.

Terminator is sometimes called Genetic Use Restriction Technology (GURTs) - the broader term that refers to the use of an external chemical inducer to control the expression of a plant's genetic traits.

Why is Terminator a problem? The top 10 largest seed companies control half the world's commercial seed market. If Terminator is commercialized, corporations will likely incorporate sterility genes into all their seeds. That's because genetic seed sterilization would secure a much stronger monopoly than patents. Instead of suing farmers for saving seed, companies are trying to make it biologically impossible for farmers to store-

use harvested seed. Canadian farms of all sizes save seeds and this practice is growing as the farm income crisis gets worse each year. Across the world, over 1.4 billion people, primarily small-scale farming families in the developing world, depend on farm-saved seed as their primary seed source. Terminator seeds will force dependence on external seed source and disrupt the age-old practice of farmer seed selection, exchange and breeding -

centuries of Indigenous and farmer seed variety development is the foundation of the Canadian seed stock.

What impact will Terminator seeds have on farmers? Terminator is a major violation of the rights of farmers to save and reuse their own seeds. Through pollen movement in the first generation, Terminator genes could contaminate farmers' crops -

farmers might then unknowingly save and reuse seeds that are contaminated and will not germinate. This could also happen if imported grain contains Terminator genes.

Farmers who depend on humanitarian food aid risk devastating crop loss if they unknowingly use food aid grain containing Terminator genes as seed.

Terminator would ensure a corporate stranglehold on seeds and result in higher seed prices at a time when farmers are experiencing the worst income crisis in the history of modern agriculture. If Canadian farmers were forced to buy Terminator seed every year, the cost would be crippling. For example, an estimated 90% of Canadian wheat is planted with saved seed. In total, the annual cost to buy this seed would be \$95 million dollars.

Who holds patents on Terminator? Monsanto could soon conclude a deal to buy Delta & Pine Land (DPL), the world's largest cotton seed company, which jointly holds three US patents on Terminator technology with the US Department of Agriculture. In October 2005, DPL won new Terminator patents in both Europe and Canada. Also, the multinational seed and agrochemical company Syngenta is requesting a Canadian patent on its Terminator potatoes. But Indigenous potato farmers in the Andes of Peru have asked Syngenta to destroy this patent.

Will Terminator stop genetic contamination? The multinational seed industry is waging a public relations campaign to promote Terminator technology as a means to stop unwanted genetic contamination from genetically engineered (GE) plants (particularly for potential use in GE trees and plants modified to produce drugs and industrial chemicals).

Escaped genes from GE plants are causing contamination and pose a threat to agricultural biodiversity and the livelihoods of farmers. For example, Saskatchewan organic canola farmers are suing Monsanto and Bayer for GE contamination (www.saskorganic.com/oapf).

Industry argues that engineered sterility would offer a built-in safety feature for GE plants because if genes from a Terminator crop cross-pollinate with related plants nearby, these seeds produced from unwanted pollination will be sterile. It will not germinate. But Terminator technology is a complex system involving multiple inserted genes that all work together in a sequence. Scientists warn that Terminator will not be 100% effective. The likelihood of system failure means it could never be a reliable tool for biocontainment.

If Terminator is used for biocontainment and fails, it would introduce new, dangerous biosafety risks.

UPDATE 2009: Victory! Global Moratorium Upheld! The international moratorium at the United Nations Convention on Biological Diversity was upheld and strengthened in March 2006 thanks to pressure from Canadians and people across the world.

Canada still promotes Terminator: In 2005, the Canadian government tried to overturn the UN moratorium. A leaked memo revealed that the government was preparing to push language to allow field-

testing and commercialization. However, in March 2006, public pressure forced the government to agree to strengthen the moratorium. But our government has still not taken a stand against Terminator.

Monsanto bids to buy Terminator: In August 2006, Monsanto announced it would buy Delta & Pine Land, the US seed company conducting greenhouse trials of Terminator. In 1999 Monsanto made a public commitment not to commercialize Terminator but Monsanto does not rule out the potential development and use of one of these technologies in the future.

Syngenta wants a Canadian patent on Terminator potatoes: Multinational corporation Syngenta has applied for a Canadian patent on its Terminator potatoes. But Indigenous farmers in the Andes of Peru are asking Syngenta to denounce this technology.