

### **What is Terminator Technology?**

Terminator technology refers to plants that have been genetically modified to render sterile seeds at harvest. It is one of a class of GM technologies known as Genetic Use Restriction Technology (or GURTS) that allow genetic traits to be switched on and off via application of an external inducer such as a chemical. The United Nations refers to sterile seed technologies as Varietal-GURTS (or V-GURTS).

### **Who has developed Terminator Technology?**

Terminator technology was developed by the multinational seed/agrochemical industry and the US government to prevent farmers from saving and re-planting harvested seed and to maximize seed industry profits. The US Department of Agriculture and Delta & Pine Land, the world's 11th largest seed company, jointly hold three patents on Terminator technology. Delta & Pine Land are currently testing the technology in greenhouses and a representative is now traveling worldwide to promote his company's Terminator technology. Syngenta, DuPont, BASF and Monsanto also hold patents on Terminator technology.

### **Who are the stakeholders?**

- **Small-scale farmers** face the biggest threats from Terminator seeds as their ability to grow and improve crops depends on selecting and saving seeds from year to year. Over 1.4 billion people in the world depend on farm-saved seed as their primary seed source. The dynamic exchange of seeds between communities and peoples is threatened by sterile seed technologies.
- For many **local communities and Indigenous peoples**, seed saving is connected with traditional knowledge relating to agricultural biodiversity and deeply held and long practiced cultural and spiritual traditions, all of which are threatened by Terminator.
- **Environmental action groups** also take issue with Terminator seeds, since Terminator seeds threaten agricultural biodiversity and pose new biosafety risks. In the first generation, pollen from Terminator plants can travel and cross with wild relatives or neighboring crops resulting in plants with sterile seeds.
- **The seed and biotechnology industry** wants Terminator in order to protect corporate patents over seeds, particularly genetically modified seeds, and to force farmers to buy commercial seed each season.
- **Most governments** have spoken up against Terminator and in defense of the farmers in their countries. There are only a few rich governments that are promoting Terminator – namely Canada, Australia and New Zealand – with the United States.

**Terminator's potential impacts include:**

- dependency on commercial seeds
- displacing traditional, Indigenous, or local ecological knowledge and cultural and spiritual practices
- disrupting traditional seed exchange practices
- irreversible changes to ecosystems from contamination with Terminator genes
- yield loss due to cross-pollination by Terminator plants
- reduced agricultural biodiversity

**What is the status of Terminator technology?**

- In 2000, the UN Convention on Biological Diversity adopted language that created an international *de facto* moratorium on Terminator seeds, recommending that governments neither field-test nor commercialize genetic seed sterilization technologies (Decision V/5, Section III, paragraph 23).
- Terminator has not yet been commercialized or field-tested — although trials are currently being conducted in greenhouses in the US.
- The moratorium is being undermined by newly proposed language of “case by case risk assessment” of Terminator. The language was pushed forward at a meeting of the UN Convention on Biological Diversity in Granada, Spain in January 2006 by the Australian government, with support from the US, Canada and New Zealand. This new language echoes Monsanto's own reference to looking at Terminator on a “case by case” basis.

“Case by case risk assessment” generally focuses on a narrow, science-based risk assessment that does not consider the potential socio-economic impacts of new technologies. The goal of the case-by-case approach is to see Terminator crops regulated like any other genetically modified plant.

**Upcoming Major Meeting in Brazil**

March 20-31 in Curitiba, Parana, governments and civil society groups from around the world will send delegates to the UN Convention on Biological Diversity's 8<sup>th</sup> Conference of the Parties to discuss the future of the *de facto* moratorium on Terminator technology.

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