

# SAY NO TO SUICIDE SEEDS

TERMINATOR TECHNOLOGY THREATENS FARMERS,  
THE ENVIRONMENT AND FOOD SECURITY WORLDWIDE:

# TAKE ACTION NOW



Issued on behalf of the UK Working Group on Terminator Technology

# WHAT IS TERMINATOR TECHNOLOGY?

Joerg Boethling/Still Pictures

**T**ERMINATOR TECHNOLOGY is the genetic modification of plants to make them produce sterile seeds. It is being developed by multinational agribusiness companies to prevent farmers from saving seeds to replant for the next harvest. If farmers have no choice but to buy new seeds every year, the companies are guaranteed large profits.

Farmers have warned that Terminator technology will threaten global food security (people's ability to grow or have access to food to eat) and could destroy traditional farming methods in much of the world. If the Terminator genes transfer into wild plant species and non-genetically modified (non-GM) crops, it could also lead to irreversible environmental damage and GM contamination of food.

The United Nations Convention on Biological Diversity (CBD), meeting in March 2006, responded to the concerns of small-scale farmers and people around the world by reaffirming its *de facto* moratorium on the further development of 'suicide seeds'.<sup>1</sup> The CBD says that products incorporating Terminator technology should not be approved for field-testing or commercial use until socio-economic and scientific assessments have demonstrated that the technology poses no harm to people or the environment.

But the agribusiness companies are determined to press ahead with Terminator. They will try to introduce Terminator without these rigorous assessments. Your help is needed now to ensure that this does not happen.

Practical Action



**“Applying technology to design sterile seeds turns life, which is a gift from God, into a commodity. Preventing farmers from re-planting saved seed will increase economic injustice all over the world and add to the burdens of those already living in hardship.”**

– Rev Dr Samuel Kobia, general secretary of the World Council of Churches (WCC). The WCC has a membership of over 340 churches and denominations representing 560 million Christians in more than 110 countries.

<sup>1</sup> The CBD decision refers to Genetic Use Restriction Technologies (GURTs). Terminator technology is one type of GURTs.

# TERMINATOR TECHNOLOGY: WHAT ARE THE RISKS?

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## UNDERMINING FOOD SECURITY AND FARMERS' RIGHTS

Up to 1.4 billion small-scale farmers depend, as their main source of seeds, on seeds they save themselves or exchange with neighbours. This practice of selecting, saving, sharing and replanting seeds from year to year has been fundamental to the development of agriculture. It is responsible for the existence of thousands of plant varieties adapted to local soils and climates and resistant to local pests. This agricultural diversity is vital to global food security.

Terminator technology, like other GM technologies, threatens global food security in various ways. It undermines the traditional practice of saving seeds, which remains important in the North, and is vital in the South. This could reduce the wide range of crops that is currently grown down to a handful of varieties. Crucially, the sterility genes could spread to other crops by a number of routes. This would reduce the number of seeds that grow, diminish the harvest, and thus destroy farmers' livelihoods.

In most cultures and for most people, seeds are synonymous with life, fertility and growth. Terminator technology is in complete contradiction to these fundamental values.

## THREATENING CONTAMINATION

For years the biotechnology industry claimed that non-GM crops could not be contaminated by GM crops. These claims have been proven wrong.

**"It's a crime against humanity – they want to annihilate our seeds in order to force us under the yoke of industrial agriculture. We have to save our seeds."**

– Francisca Rodríguez, leader of Asociación Nacional de Mujeres Rurales e Indígenas (rural and indigenous women's network), Chile



Mauricio Ushina

Research published in March 2006 by GeneWatch UK and Greenpeace revealed cases of contamination in 39 countries – twice as many as officially permit the growing of GM crops.

Having argued for years that the problem of contamination did not exist, the biotechnology industry is now claiming to have found the answer: Terminator technology. It claims that Terminator will stop contamination of non-GM crops by GM crops. However, like any other GM genes, Terminator genes could spread to other crops by cross-fertilisation and by accidental mixing. So the GM Terminator genes will themselves contaminate non-GM crops, meaning that these non-GM crops would produce sterile seeds and would no longer be GM-free.

Rather than introducing a dangerous technology (Terminator) to deal with the negative effects of another dangerous technology (genetic modification), we should stop and think carefully about the consequences of these technologies before we release them into the environment.

The real aim behind Terminator is to prevent farmers from saving seeds and thus increase the sales of agribusiness companies. Instead of commercial interests, public interest should be at the heart of the decisions we take.

## DENYING CONSUMER CHOICE

UK and European consumers have clearly shown that they do not want to eat GM food. If Terminator technology is approved for commercial use, seed companies will be able to introduce the GM Terminator genes into all their seeds, even the ones that are currently GM-free, in order to increase their sales. This will increase the proportion of GM crops grown and make it increasingly difficult to guarantee that food and crops are GM-free.

## UNKNOWN DANGERS

Genetic engineering has been shown to cause unplanned changes to the quality and functioning of crops. Terminator technology is no exception and like other GM crops can carry risks of:

- introducing potentially allergenic or toxic compounds into the food chain
- changes in a crop's nutritional qualities
- unpredictable chemical changes in the plant
- increased use of weed-killers and some other pesticides.

# WHAT IS THE ALTERNATIVE?

Sean Sprague/Still Pictures

**P**OVERTY AND HUNGER in the developing world cannot be solved by technological fixes like GM crops. There is no need for GM crops in order to be able to grow enough food for the world. The real issue is, can we make sure everyone has access to enough good-quality food to eat?

To begin with, we need to challenge the real causes of poverty, including the unfair terms of global trade and the continuing burden of debt. These make developing countries prioritise the intensive production of commodity crops for export, instead of supporting their farmers to grow diverse and nutritious food for their people.

We also need to support sustainable agriculture – an approach that enables people to grow the food they need without exhausting or damaging the land.

Sustainable farming systems require seed varieties suitable for local soils and climate and with resistance to local pests. Farmers around the world have an immense knowledge of plant breeding and have been responsible over the years for developing thousands of varieties. It is these which provide the genetic base for local and commercial seeds such as Basmati rice in Pakistan.

Seeds have been freely exchanged for centuries, meaning that plant breeding at grassroots level is a dynamic process. It is vital that support is given to local breeders to maintain knowledge and gene pools and ensure that this hugely valuable genetic resource is available for everyone. Public finance and technical support for such breeding programmes can ensure that traditional knowledge is protected from unfair commercial exploitation and that the best quality seeds are available to all farmers.

**“This technology of sterile seeds will prevent us from implementing the Millennium Development Goal on hunger, and the poverty eradication action plan here in Uganda.”**

– Food Rights Network, Eastern Uganda



Jean-Leo Dugast/Still Pictures

# WHY ACT NOW?

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**T**HANKS TO THE STRONG SUPPORT of the British public, over 250 MPs from all parties signed Early Day Motion 1300 asking the UK government to support the international moratorium on Terminator technology. This, together with the actions taken by many others around the world, was fundamental in reinforcing the moratorium in March 2006.

But the moratorium – which has been in place since 2000 – has not stopped biotechnology companies from pressing ahead with Terminator. Syngenta, Dupont, BASF, Monsanto and Delta and Pine Land (D&PL) are among the companies that have obtained patents for their versions of Terminator technology. In October 2005, D&PL and the US Department of Agriculture were granted the first European patent on Terminator.

The biotechnology companies are not going to give up now. They are actively developing Terminator, and once the technology is ready they will apply to field-test seeds with the Terminator gene.

The CBD decision – that Terminator should not be field-tested until it has been shown to pose no harm to people or the environment – is not yet enshrined in UK or EU legislation. Under current UK and EU law, applications for field-testing could be heard on a case-by-case basis, using narrow scientific assessments only (often depending solely on data provided by the companies themselves).

It is vital that all governments correctly interpret the moratorium on Terminator technology to mean that socio-economic and scientific assessments need to take place at the global level, under the auspices of the CBD, before any applications for releases anywhere are even considered.

To make sure that this happens in Britain and Europe – and to send the right message to developing countries for whom seed-saving is so fundamental – UK and EU legislation on genetically modified organisms (GMOs) needs to be amended, so that Terminator cannot be approved for field-testing until worldwide scientific and socio-economic assessments have shown that it poses no harm to people or the environment.

# WHAT CAN YOU DO?

BIOS Gunther Michel/Still Pictures

**P**LEASE WRITE to your MP urging her/him to write on your behalf to Defra (the Department for Environment, Food and Rural Affairs) and DFID (the Department for International Development). You can use the following text, or explain your concerns about Terminator in your own words.

Dear \_\_\_\_\_

I am writing to ask for your support to ensure that the global moratorium on Terminator technology is observed.

I am concerned that the UK government's policy on GMOs is that an application for field-testing or commercialising a product containing Terminator technology would be dealt with like any other GMO, namely on a case-by-case basis.

I believe that it is fundamental that all governments abide by the UN Convention on Biological Diversity decision on Terminator technology. This means that, before any applications for releases anywhere are even considered, global socio-economic and scientific assessments must have shown that these technologies pose no harm to people or the environment.

I urge you to write to Defra to ask that UK and EU legislation on GMOs is amended so that it acknowledges the very specific nature of Terminator technology, and makes socio-economic assessments compulsory for Terminator and other Genetic Use Restriction Technology (GURTs) applications.

I also urge you to write to DFID to emphasise the strong anti-development implications of Terminator technology. Please ask why DFID does not oppose the testing and possible commercialisation of this technology considering the very serious threats it poses for the food security and livelihoods of millions of poor people in developing countries.

Yours sincerely,



To contact your MP visit [www.locata.co.uk/commons/](http://www.locata.co.uk/commons/) or phone the House of Commons Information Service on 020 7219 4272.

If you would like to do more to oppose Terminator technology, please also write to:

- David Miliband, Secretary of State for Environment, Food and Rural Affairs, Nobel House, 17 Smith Square, London SW1P 3JR
- Hilary Benn, Secretary of State for International Development, 1 Palace Street, London SW1E 5HE

# WHERE CAN YOU FIND OUT MORE?

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- Visit the website of the international Ban Terminator campaign [www.banterminator.org](http://www.banterminator.org) for the latest news on Terminator technology.
- If you would like more (free) copies of this leaflet to distribute through your networks, please email [environment@progressio.org.uk](mailto:environment@progressio.org.uk) or write to Environmental Action at the address below. The leaflet is also available to download from Progressio's environment website [www.eco-matters.org](http://www.eco-matters.org) – from where you can also send emails to your MP, to Defra and to DFID.



If you are concerned about the potential impacts of Terminator technology, please make sure that your MP and other elected representatives are aware of your opposition to it.

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GREENPEACE



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In endorsing this statement, each organisation is indicating its formal agreement in those areas where it has specific competence. Each endorses the overall argument of the statement as a whole and each recognises the expertise and authority of the other member organisations in those areas where they themselves do not have specific competence.

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