

## Genetically Modified Crops in the UK - the Current Situation

There are no genetically modified (GM) crops commercially available for farmers to grow in the UK and the earliest they will become available is in 2003. To be grown and sold in the European Union, GM crops have to be given approval under laws covering environmental protection (the Deliberate Release Directive – currently being revised) and food safety (the Novel Food Regulation). They also have to be entered on the National Seed List and, if they are herbicide tolerant, a change of use licence for the herbicide is also required. The European Commission is expected to propose a Directive to cover the safety of using GM crops in animal feed during 2000.

The crops closest to commercialisation are all herbicide tolerant:

- ‘Liberty Link’ winter and spring oilseed rape tolerant to glufosinate (developed by Aventis – which also owns Plant Genetic Systems and AgrEvo);
- ‘Liberty Link’ fodder maize tolerant to glufosinate (developed by Aventis);
- ‘Roundup Ready’ sugar beet and fodder beet tolerant to glyphosate (developed by Aventis and Monsanto).

These crops are included in the UK Government's farm-scale evaluations that are investigating the effects on biodiversity of growing GM herbicide tolerant crops (see GeneWatch Briefing No 8 and Farm Scale Trial Fact Sheets). The results will not be available until 2002 and, under a voluntary agreement with industry, the crops will not be sold commercially until 2003 at the earliest.

A GM insect resistant maize developed by Novartis is being grown commercially in some parts of Europe, including France and Spain, but the company has no plans to market it in the UK. Other GM crops awaiting approval for growing in Europe are potatoes with altered starch content, tomatoes which soften more slowly, cotton which is herbicide tolerant or insect resistant, and more herbicide tolerant oilseed rape and fodder beet varieties. The table overleaf shows those GM crops which have been approved for use in Europe and the applications which are awaiting a decision.

### **GeneWatch UK *Farmers Information Series***

In the next five years or so, UK farmers will have to decide whether they wish to grow GM crops - particularly herbicide tolerant varieties, which are the most likely to become commercially available during this period. GeneWatch UK's *Farmers Information Series* is intended to help inform such decisions by presenting farmers with information which is not always readily available.

Each briefing in the series will examine a different aspect of the issues involved in growing GM crops - the financial and farm management implications, the market for GM crops, their potential impact on the environment, and the possible consequences for UK agriculture in general.

**GM plants approved for commercial use in Europe and applications awaiting a decision**

<b>CROP</b>	<b>TRAIT</b>	<b>COMPANY</b>	<b>USES</b>	<b>APPROVAL DATE</b>
Oilseed rape	HT	Plant Genetic Systems	Seed production only	1996
Oilseed rape	HT	AgrEvo	Importation/ seed production	1998
Maize	HT & IR	Ciba Geigy (now Novartis)	Growing, animal feed and food use	1997
Maize	HT	AgrEvo	Growing	1998
Maize	HT	Monsanto	Importation, animal feed and human food uses	1998
Maize	HT & IR	Novartis (formerly Northrup King)	Importation, animal feed and human food uses	1998
Carnation	Modified flower colour	Florigene	Cut flowers and plants	1997
Carnation	Prolonged vase life	Florigene	Cut flowers and plants	1998
Carnation	Modified flower colour	Florigene	Cut flowers and plants	1998
Soybeans	HT	Monsanto	Importation for food and feed	1996
Tobacco	HT	SEITA	Growing	1994
Chicory	HT	Bejo-Zaden BV	Growing for breeding purposes only	1996
Maize	HT & IR	Pioneer Hi-Bred	Growing, importation, food and feed	Awaiting approval
Chicory	HT	Bejo-Zaden BV	Growing, food and feed	Awaiting approval
Oilseed rape	HT	AgrEvo	Growing, food and feed	Awaiting approval
Oilseed rape	HT	AgrEvo	Growing, food and feed	Awaiting approval
Oilseed rape	HT	AgrEvo	Importation, food and feed	Awaiting approval
Oilseed rape	HT	Plant Genetic Systems	Growing, food and feed	Awaiting approval
Oilseed rape	HT	Plant Genetic Systems	Growing, food and feed	Awaiting approval
Oilseed rape	HT	Plant Genetic Systems	Growing, food and feed	Awaiting approval
Fodder beet	HT	Monsanto; Danisco & Trifolium	Growing, animal feed	Awaiting approval
Cotton	HT	Monsanto	Growing, importation, animal feed	Awaiting approval
Cotton	HT	Monsanto	Growing, animal feed, importation and processing	Awaiting approval
Maize	HT	Monsanto	Importation, animal feed	Awaiting approval
Maize	HT & IR	DeKalb Genetics	Importation and animal feed	Awaiting approval
Tomatoes	Delayed softening	Zeneca	Growing and food	Awaiting approval
Potato	Amylose production	Amylogene	Growing, processing and animal feed	Awaiting approval
Flax	HT	University of Saskatchewan	Importation and animal feed	Awaiting approval

**Key:** HT = Herbicide tolerance; IR = Insect resistance

**GeneWatch UK, The Mill House, Manchester Road,  
Tideswell, Buxton, Derbyshire, SK17 8LN, UK**  
**Phone: 01298 871898 Fax: 01298 872531 E-mail: mail@genewatch.org**  
**Website and online database: <http://www.genewatch.org>**