

## COEXISTENCE MONTHLY UPDATE – April 2005

### WORLD GM UPDATES BY GEOGRAPHICAL AREA

#### Europe

##### *Monsanto holds right to patent some seeds*

The European Patent Office was cited as ruling in April 2005 that Monsanto has the right to patent its genetically modified (GM) herbicide-resistant seeds in Europe. The patent applies to Monsanto's RoundUp Ready GM seeds which are resistant to the Monsanto's RoundUp herbicides.

##### *Acceptance of genetic modification method*

European countries with strong lobbies against GM crops have reacted positively to a new technique developed by scientists at Crop and Food Research in New Zealand which modifies plants without introducing DNA from another species. It is important to note that this new precision breeding "technique" would still result in plants classified as genetically modified under certain countries' legislation, including New Zealand's HSNO Act.

##### *German state sues over GM laws*

The East German state of Saxony-Anhalt is suing the federal government over new laws which it claims prevent biotechnology companies from doing field research into GM crops. German GM coexistence legislation, in force since January 1 2005, allows farmers to claim compensation if their non-GM crop is cross-pollinated by GM crops. Opponents in Saxony-Anhalt say the law is too vague, making the risk of liability so high that companies are unable to carry out trials.

##### *Register of existing GM food and feed products published*

The European Commission has published a list of 26 GM products which have been legally on the EU market since before the new legislative framework for authorising GM food and feed entered into effect. These so-called "existing products" were either approved under former EU legislation, or did not require approval at the time that they were put on the market. They have been added to a specific section of the Community Register of GM Food and Feed in order to clarify exactly which GM products are legally permitted to be sold in the EU and to ensure full information on these products is available.

##### *EU detection method for Bt10 maize validated*

An event-specific method for detecting Bt10 maize has been approved by the Joint Research Centre (JRC), which is the European Community's Reference Laboratory for GM organisms. This method will be used for identifying Bt10 maize in commodities. Following the United States authorities' notification to the Commission that Syngenta's unauthorised Bt10 may have been inadvertently exported to the EU, the Commission decided on April 18 to implement emergency measures requiring certain maize feed products from the United States to be certified as free from Bt10. Syngenta proposed the detection method to be used to test imports, which was then validated by Genescan and, following in-house laboratory testing, subsequently certified by the JRC to become the official EU method for Bt10 detection.

##### *Commission sends proposals on GM crops to Council*

The European Commission sent proposals to the Council of Ministers asking five Member states to lift their bans on certain authorised GM crops. The draft proposals, which are backed by the European Food Safety Authority concern two GM maize varieties banned in Austria, one GM maize banned in Germany and Luxembourg, an oilseed rape variety banned

in France and another oilseed rape banned in France and Greece. The Regulatory Committee, which was established under Directive 2001/18/EC and represents the Member States, did not reach the qualified majority necessary to support the Commission proposal to ask the five Member States to lift their national measures. The Council can either adopt or reject the proposals with a qualified majority. If no decision is taken after three months, the files return to the Commission which can then adopt them. If adopted, the Member States in question would have to repeal their national bans at the latest 20 days after they are formally notified of the decision.

*Poll shows Europeans feel ignorant about GM crops and food*

The latest Eurobarometer survey, conducted in 2004, polled nearly 25,000 interviewees in all 25 EU member states. The poll found that four out of ten Europeans feel ignorant about GM crops and foods and a quarter of them are worried that gene-altered products used in farming will affect the environment. In Scandinavia, the feeling of not having enough information about GM was far higher than average, hitting 66% in Finland and 49% in Sweden. Slightly under a quarter of Europeans said they were worried about environment aspects of using GM in farming. The highest concern levels over GM crops and foods came from Greece and Austria, both at 43%. Cyprus came third with 39%. Conversely, Malta was the least concerned at just 12%, followed by Finland with 14%. These levels are all lower than the levels of concern expressed over water pollution (47%) and climate change (45%).

**Africa**

*Tanzania is growing GM tobacco*

Tanzania's Agriculture Minister has said that GM tobacco without nicotine is being grown in the country for research purposes. However, Tanzania's planned regulatory framework for GM crops is still to be debated by parliament.

*Sowing GM crops in Egypt*

Anticipating the important role genetic engineering would eventually have in agriculture, the Egyptian Ministry of Agriculture partnered with USAID in 1990 to establish Egypt's Agricultural Genetic Research Institute. Now it is about to launch the first commercially grown GM crop, a strain of cotton that could save the industry millions of pounds every year by boosting output and significantly reducing chemical crop spraying.

*GM public awareness in South Africa*

A survey was conducted by the Public Understanding of Biotechnology Programme of the Department of Science and Technology in collaboration with the Human Sciences Research Council. The study sampled 7000 adults across the country's nine provinces, including urban and rural communities of all race groups. The sample was designed to represent the total adult population of South Africa. The survey found that:

- 60% did not know whether GM foods are on sale or whether they have been eating them.
- 26% perceived no risk from biotechnology; 21% perceived a risk, but the majority of these could give no reason for their perception.
- Support for continuation of biotechnology practices ranged from 49% to 62% for biotech foods, pest resistant crops, medicines and bio-degradable plastics.
- 65% would buy GM maize if it was healthier, and 52% if cheaper, 55% if more environmentally-friendly and 50% will eat eggs from chickens fed on GM maize.
- The most trusted sources of information were universities, government and media.

- People wanted more information on medical biotechnology (44%) and GM foods and agro-biotechnology (24%).
- 51% never read food labels and only 1% indicated a need to indicate GM content on the label.

### **North America**

#### *Syngenta fined for introducing unauthorised Bt10 corn into the United States*

Syngenta was fined \$US 375,000 by the United States Department of Agriculture (USDA) over the release of unauthorised Bt10 GM corn in the United States. The USDA also required the company to develop a training program to prevent such an occurrence in the future. Mike Mack, Chief Operating Officer of Syngenta Seeds, was quoted as saying the company welcomed “the government’s conclusion that Syngenta's misidentification of Bt10 corn...does not pose any risks to consumers, public health or the environment.” Syngenta could face more fines from the United States Environmental Protection Agency, which is conducting its own investigation.

#### *American team grows biopharm crop in containment underground*

Scientists from Purdue University have teamed up with a company, Controlled Pharming Ventures, to design and build a crop-growth facility inside a 60-acre former limestone mine in Indiana. The first test crop (the type of modification was not specified) grown in the facility produced more corn than plants grown in a greenhouse on the Purdue campus.

#### *GM liability in the United States*

- The Montana legislature rejected a Bill dealing with the liability of planting GM wheat. The Bill would have mandated that manufacturers of GM wheat seeds were liable for any damages that might result from GM varieties crossing with conventional or organic varieties grown in the state of Montana. At present, Montana law places the responsibility on the farmer to sue a neighbouring farmer for damages should cross-pollination from a transgenic crop occur.
- Similar bills have been proposed and turned down in other US states. The most contested to date is Vermont, where the Senate has approved a Bill that would place the liability on the producer of the seeds, not the farmer. The Vermont Bill is now being reviewed by the House, but is expected to be rejected by the Governor, who has openly expressed his opposition to the Bill.
- Recently, a similar Bill was also proposed in California.

#### *Ventria Bioscience won't try to grow modified rice in Missouri this year*

After applying for a licence to grow GM rice containing human proteins, Ventria Bioscience has announced that it will not grow the rice in Missouri this year because it can't get a permit from regulators in time for the growing season. Ventria's plans had faced opposition from rice farmers and a brewing company that sources rice from Missouri.

### **Australia / New Zealand**

#### *Australian GM cotton harvest*

Farmers in New South Wales and Queensland have begun to harvest their GM cotton crop. This is the first year that cotton farmers have been allowed to sow more than 30% of their crop with insect-resistant cotton, and approximately 80% of the 300,000 cotton acres was planted in insect-resistant GM cotton. The Sydney Morning Herald reported that some farmers growing GM cotton reduced pesticide spraying by over 80% and that the sprays used

on the GM cotton crops were narrow spectrum sprays that were less harmful to beneficial insects than the broad spectrum insecticides used on conventional crops.

*Australian and Japanese scientists develop GM blue rose*

Australian and Japanese researchers have used RNAi (RNA-mediated interference, also known as gene silencing) and gene replacement technology to develop a blue rose. Breeders have attempted to make true blue roses for many years, but no roses with blue pigments have been successfully bred. The researchers used RNAi to turn off a gene in roses that controls part of the colour production pathway. They then replaced the rose gene, which can't make blue pigments, with the same gene from iris, which makes a lot of blue pigment.

*Australian report says GM bans are costing farmers*

A report for the Rural Industries Research and Development Corporations found that Australian consumers, farmers and the scientific community would be left behind if state governments maintain their bans on GM food crops, and concluded that Australia risked being an "agricultural backwater" if it resisted the wider scale introduction of GM crops. The report found Australia would be at least \$20 million a year better off if GM crops were adopted, and \$37 million a year better off if the European Union dropped its effective ban on the technology.

The report predicts that non-GM crops would eventually become a niche market similar to organic produce today and cease to deliver major financial benefits to the country.

*Western Australia to field trial GM wheat*

Western Australia's first field trial of GM salt tolerant wheat will be sown next month. The wheat, developed by Grain Biotech Australia, will be tested under strict licence conditions, over less than half a hectare. The trial, planned for seeding mid to late May, will compare the performance of two wheat's which have a salt-tolerant gene with non-GM counterparts over an increasing salt gradient.

**Asia**

*India formulates new biotechnology policies*

India's Department of Biotechnology, under the Ministry of Science and Technology, has formulated a new national biotechnology development strategy for the country. The strategy acknowledges that biotechnology can revolutionize agriculture, healthcare, industrial processing, and environmental sustainability for India, and the development strategy aims to generate revenues through biotechnology as business. The strategy also aims to integrate India's scientific resources to "create a productive enterprise." These include its scientists, laboratories, and its biotech parks, all of which may work together to advance biotechnology, as well as the affordability and accessibility of its products. The new strategy charts a ten year roadmap for the country.

*Insect-resistant GM cotton in India boosts yields*

A survey carried out by the Indian seed company Maharashtra Hybrid Seeds Co. (a.k.a. MAHYCO) showed that yields from GM cotton were 58% higher than from conventional seeds in India last season. In 2004/05 (October to September) cotton production is predicted to rise to 21 million bales from 17.7 million, mainly because of the planting of GM cotton in large areas.

*Illegal GM rice in China*

Greenpeace alleges that an illegal variety of GM Bt rice has been released in China. A Greenpeace research team discovered unapproved GM rice being sold and grown illegally in the Chinese province of Hubei. Interviews with seed providers and farmers indicate that GM rice seeds have been sold over the past two years. Samples of rice seed, unmilled and milled rice have been collected from seed companies, farmers and rice millers. Greenpeace says that testing by the international laboratory Genescan confirmed the presence of GM DNA in 19 samples. China has ordered an investigation into Greenpeace's claims.

*GM rice in China benefits farmers – report from field tests*

Researchers reported in the journal *Science* that Chinese farmers growing insect-resistant GM rice produced larger crops, saved money on pesticides and were less likely to get sick from exposure to poison intended for insects than farmers using non-GM varieties. None of the farmers using only the GM crop was sickened by exposure to pesticides, while 8.3% of farmers in the study growing only conventional rice reported pesticide-related illness in 2002, while 3.0 % of them did so in 2003. The researchers studied farmers using two rice strains that had been modified in different ways to make the plants resistant to rice stem borer and leaf roller. In 2002, researchers studied 40 farmers using GM rice on all or part of their farms and 37 farmers using only conventional varieties of rice. In 2003, they looked at 69 farmers who were using GM rice on all or part of their farms and 32 who were growing conventional varieties. The farmers were not paid for their effort and were not assisted by technicians. They made their own decisions about using pesticides by studying their fields.

*Japan approves importation of GM corn varieties*

Japanese authorities have approved the importation of GM corn containing both Monsanto's RoundUp Ready traits and Dow AgroScience's Herculex I traits. The varieties protect against the European and Southwestern corn borer, the Western Bean Cutworm, the Back Cutworm and the Fall Armyworm while also providing resistance to glyphosate.

Individually, the traits for Herculex I and RoundUp Ready had been approved for import into Japan. However, the Japanese regulatory system requires that varieties with "stacked" traits need to be brought before regulatory review again as a separate case.