



# **Global Trends**

## **GMO – Who's Who**

### **April 2009**

<b>Seed Suppliers</b>	<b>2</b>
<b>International</b>	<b>2</b>
<b>Regional</b>	<b>6</b>
- <b>Africa</b>	
- <b>Australia</b>	
- <b>Asia</b>	
- <b>Europe</b>	
- <b>North America</b>	
<b>Anti GMO Groups/Organizations</b>	<b>8</b>

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# GMO – Who's Who – 2009/04

This list includes:

- Seed suppliers
- International organizations
- Selection of regional organizations – Africa, Australia, Asia, Europe and North America
- Selection of International and regional organizations opposed to GMO use – primarily organic and environmental concerns

## SEED SUPPLIERS

There are four main suppliers of genetically modified (GM) seed. The bulk of the market for GM seed is held by Monsanto.

Monsanto - Monsanto is headquartered in St. Louis, Missouri, in the United States, and has locations in multiple locations around the world.

<http://www.monsanto.com/>

Syngenta - with more than 24,000 employees in over 90 countries

<http://www.syngenta.com/en/index.html>

Bayer CropScience - has about 17,800 employees, located in more than 120 countries

<http://www.bayercropscience.com/>

Dupont - Pioneer® Hi-Bred International, Inc. is the world's leading source of agricultural seed technology, inoculants, and agronomic information.

[http://www2.dupont.com/Renewably\\_Sourced\\_Materials/en\\_US/seeds.html](http://www2.dupont.com/Renewably_Sourced_Materials/en_US/seeds.html)

## INTERNATIONAL

**Cartagena Protocol on Biosafety** - On 29 January 2000, the Conference of the Parties to the Convention on Biological Diversity adopted a supplementary agreement to the Convention known as the Cartagena Protocol on Biosafety. The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms resulting from modern biotechnology. It establishes an advance informed agreement (AIA) procedure for ensuring that countries are provided with the information necessary to make informed decisions before agreeing to the import of such organisms into their territory.

The Protocol contains reference to a precautionary approach and reaffirms the precaution language in Principle 15 of the Rio Declaration on Environment and Development. The Protocol also establishes a Biosafety Clearing-House to facilitate the exchange of information on living modified organisms and to assist countries in the implementation of the Protocol.

<http://www.cbd.int/biosafety/>

**Codex Alimentarius Commission (Codex)** - joint FAO/WHO body responsible for compiling the standards, codes of practice, guidelines and recommendations that constitute the Codex Alimentarius: the international food code. Codex is developing principles for the human health risk analysis of GM foods. The premise of these principles dictates a premarket assessment, performed on a case-by-case basis and including an evaluation of both direct effects (from the inserted gene) and unintended effects (that may arise as a consequence of insertion of the new gene). Codex principles are referred to in the Sanitary and Phytosanitary Agreement of the World Trade Organization (SPS Agreement), and can be used as a reference in case of trade disputes.

[http://www.codexalimentarius.net/web/index\\_en.jsp](http://www.codexalimentarius.net/web/index_en.jsp)

Codex ad hoc Task Force on Foods Derived from Biotechnology.

[http://www.who.int/foodsafety/biotech/codex\\_taskforce/en/index.html](http://www.who.int/foodsafety/biotech/codex_taskforce/en/index.html)

**Consultative Group on International Agricultural Research** - The CGIAR is a strategic alliance of members, partners and international agricultural centers that mobilizes science to benefit the poor.

<http://www.cgiar.org/>

**Earthwatch Institute** - an international non-profit organization that brings science to life for people concerned about the Earth's future. Founded in 1971, Earthwatch supports scientific field research by offering volunteers the opportunity to join research teams around the world. This unique model is creating a systematic change in how the public views science and its role in environmental sustainability. Earthwatch has access to a network of over 2500 scientists from around the world and as such are in the unique position of providing a bridge between science and industry in business and biodiversity.

<http://www.earthwatch.org/>

Earthwatch, in association with UK Social Investment Forum, held a timely debate on Tuesday 11th November 2008 to explore the purported financial returns and environmental benefits of several emerging green investment opportunities.

Three distinguished experts, Annelisa Grigg, who heads up the environmental markets team at Fauna & Flora International, Professor Stuart Haszeldine of Edinburgh University, and Professor Vivian Moses of CropGen, each faced the challenge of convincing a panel of leading City investment specialists that a functioning and profitable market could be established for ecosystem services, carbon capture and storage (CCS), and genetically modified organisms (GMOs) - whilst at the same time helping address some of the most fundamental environmental challenges facing the planet.

[http://www.earthwatch.org/europe/newsroom/corporate\\_partnerships/news-6-cityevent.html](http://www.earthwatch.org/europe/newsroom/corporate_partnerships/news-6-cityevent.html)

**Food and Agriculture Organization (FAO)** – Serving both developed and developing countries, FAO acts as a neutral forum where all nations meet as equals to negotiate agreements and debate policy. FAO is also a source of knowledge and information. We help developing countries and countries in transition modernize and improve agriculture, forestry and fisheries practices and ensure good nutrition for all. Since our founding in 1945, we have focused special attention on developing rural areas, home to 70 percent of the world's poor and hungry people.

March 2000 – Statement of Position - While there is little controversy about many aspects of biotechnology and its application, genetically modified organisms (GMOs) have become the target of a very intensive and, at times, emotionally charged debate. FAO recognizes that genetic engineering has the potential to help increase production and productivity in agriculture, forestry and fisheries. It could lead to higher yields on marginal lands in countries that today cannot grow enough food to feed their people. There are already examples where genetic engineering is helping to reduce the transmission of human and animal diseases through new vaccines. Rice has been genetically engineered to contain pro-vitamin A (beta carotene) and iron, which could improve the health of many low-income communities.

FAO supports a science-based evaluation system that would objectively determine the benefits and risks of each individual GMO. This calls for a cautious case-by-case approach to address legitimate concerns for the biosafety of each product or process prior to its release. The possible effects on biodiversity, the environment and food safety need to be evaluated, and the extent to which the benefits of the product or process outweigh its risks assessed. The evaluation process should also take into consideration experience gained by national regulatory authorities in clearing such products. Careful monitoring of the post-release effects of these products and processes is also essential to ensure their continued safety to human beings, animals and the environment.

<http://www.fao.org/biotech/>

**The International Service for the Acquisition of Agri-biotech Applications (ISAAA)** - is a not-for-profit organization that delivers the benefits of new agricultural biotechnologies to the poor in developing countries.

<http://www.isaaa.org/>

**International Food Policy Research Institute** – IFPRI is one of 15 agricultural research centers that receive principal funding from governments, private foundations, and international and regional organizations, most of which are members of the Consultative Group on International Agricultural Research (CGIAR).

<http://www.ifpri.org/>

Guillaume Gruère and Debdatta Sengupta, Biosafety Decisions and Perceived Commercial Risks - The Role of GM-Free Private Standards, February 2009.

<http://www.ifpri.org/pubs/dp/IFPRIDP00847.pdf>

**International Assessment of Agricultural Science and Technology for Development (IAASTD)** - The IAASTD is composed of one Global Assessment and five Sub-global Assessments, which will use the same basic framework as the Global Assessment, i.e., the impacts of AKST on hunger, poverty, nutrition, human health, and environmental and social sustainability in relation to both the past and the future. The Global and Sub-global assessments will be peer-reviewed by governments and experts, and approved by the Panel of participating governments.

<http://www.agassessment.org/>

**International Centre for Trade and Sustainable Development (ICTSD)** - was established in Geneva in September 1996 to contribute to a better understanding of development and environment concerns in the context of international trade.

<http://ictsd.net/>

**The International Union for the Protection of New Varieties of Plants (UPOV)** - is an intergovernmental organization with headquarters in Geneva (Switzerland). UPOV was established by the International Convention for the Protection of New Varieties of Plants. The Convention was adopted in Paris in 1961 and it was revised in 1972, 1978 and 1991. The objective of the Convention is the protection of new varieties of plants by an intellectual property right.

[http://www.upov.int/index\\_en.html](http://www.upov.int/index_en.html)

**World Health Organization** - WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends.

[http://www.afro.who.int/des/fos/afro\\_codex-fact-sheets/fact6\\_genetically-modified-foods-gmo.pdf](http://www.afro.who.int/des/fos/afro_codex-fact-sheets/fact6_genetically-modified-foods-gmo.pdf)

**United Nations Environment Programme (UNEP)** – To provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations. While advances in biotechnology have great potential for significant improvements in human well-being, they must be developed and used with adequate safety measures for the environment and human health.

The full name of the Biosafety Protocol is "the Cartagena Protocol on Biosafety to the Convention on Biological Diversity." Cartagena is the name of the city in Colombia where the Biosafety Protocol was originally scheduled to be concluded and adopted in February 1999. However, due to a number of outstanding issues, the Protocol was finalized and adopted a year later on 29 January 2000 in Montreal, Canada. The objective of the Protocol is to contribute to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health, and specifically focusing on transboundary movements.

<http://www.unep.org/>

## REGIONAL AFRICA

**African Agriculture Technology Foundation** - is a not-for-profit organisation designed to facilitate and promote public/private partnerships for the access and delivery of appropriate proprietary agricultural technologies for use by resource-poor smallholder farmers in Sub-Saharan Africa. **Monsanto** joined a precedent-setting public-private partnership led by the African Agricultural Technology Foundation (AATF) to bring drought-tolerant maize to smallholder farmers in Africa.

The partnership called Water Efficient Maize for Africa (WEMA) was formed in response to a growing call by African farmers, leaders and scientists to address the devastating effects of drought on small-scale farmers. The project, funded by the Bill and Melinda Gates Foundation and the Howard G. Buffett Foundation, will combine the scientific expertise of Centro Internacional de Mejoramiento de Maíz y Trigo (CIMMYT), The African Agriculture Technology Foundation (AATF) and Monsanto for the benefit of smallholder farmers in Africa.

<http://www.aatf-africa.org/>

## AUSTRALIA

**Australia - Office of the Gene Technology Regulator** has been established within the Australian Government Department of Health and Ageing - supports the Gene Technology Regulator, is within the Commonwealth Department of Health and Ageing. The Office of the Gene Technology Regulator is located in Canberra and comprises some 50 scientific, legal, policy, professional and administrative staff.

<http://www.ogtr.gov.au/internet/ogtr/publishing.nsf/Content/home-1>

## ASIA

**Japan's Food Safety Commission** – The Food Safety Commission is an organization that undertakes risk assessment, and is independent from risk management organizations such as the Ministry of Agriculture, Forestry and Fisheries, and the Ministry of Health, Labour and Welfare.

<http://www.fsc.go.jp/english/index.html>

**Asia-Pacific Consortium on Agricultural Biotechnology (APCoAB)** - a programme of Asia Pacific Association of Agricultural Research Institutions (APAARI), is an apolitical forum with a goal to enhance the benefits of biotechnologies for sustainable agricultural development in the Asia-Pacific region

<http://www.apcoab.org/>

Biotechnology Regulations in Asia-Pacific – 2008

[http://www.apcoab.org/documents/bs\\_pub.pdf](http://www.apcoab.org/documents/bs_pub.pdf)

## EUROPE

**European Food Safety Authority** - An expert committee of the European Food Safety Authority (EFSA) is responsible for evaluating the safety of all GM foods. Known as the GMO Panel, it is made up of independent scientists from a range of disciplines. They are not held to any prescribed directives from the EU or EFSA.  
[www.efsa.europa.eu/](http://www.efsa.europa.eu/)

**UK Department for Environment, Food and Rural Affairs (DEFRA)** – From their website - As we build a low carbon, resource efficient economy, Defra helps people to adapt to changes, deals with environmental risks and makes the most of the opportunity we now have to secure a sustainable society and a healthy environment. This will help see us through the difficult economic times, volatile food and energy prices and a changing climate which all make us more aware that we can't take our environment for granted  
[www.defra.gov.uk/](http://www.defra.gov.uk/)

**The Advisory Committee on Releases to the Environment (ACRE)** - gives statutory advice on the risks to human health and the environment from the release and marketing of genetically modified organisms (GMOs). The committee also provides advice on the release of certain non-GM species of plants and animals that are not native to Great Britain. ACRE advises the UK Government and devolved administrations of Scotland and Wales, while in Northern Ireland ACRE's advice is received by the Department of the Environment.  
[www.defra.gov.uk/environment/acre/](http://www.defra.gov.uk/environment/acre/)

**GeneWatch UK** is a not-for-profit group that monitors developments in genetic technologies from a public interest, environmental protection and animal welfare perspective.  
<http://www.genewatch.org/>

**Germany - GMO Safety** – Federal Ministry of Education and Research  
<http://www.gmo-safety.eu/en/>  
<http://www.gmo-safety.eu/en/debate/>

**EU - Scientific Committee on Plants** – Scientific and technical questions relating to plants intended for human or animal consumption, production or processing of non-food products as regards characteristics liable to affect human or animal health or the environment, including the use of pesticide.  
[http://ec.europa.eu/food/fs/sc/scp/index\\_en.html](http://ec.europa.eu/food/fs/sc/scp/index_en.html)

**UK - Which?** - the largest consumer body in the UK, with over 650,000 members provides unbiased advice to consumers. Reported in September 2005, Which? repeated a survey of almost a thousand adults, first carried out in 2002, to see whether opinions about GM have changed. Despite commercial growing of GM crops in the UK moving closer, only around a quarter of people in the latest survey were in favour of GM crops being grown in the UK, compared with almost a third of people in 2002. The main concerns are the long-term health consequences and the impact on the environment.  
<http://www.which.co.uk/>

## **NORTH AMERICA**

**Canada - Health Canada and the Canadian Food Inspection Agency** - share responsibility for regulating the safety of genetically modified plants and foods.

**US - Science Advisory Board** – mission is to improve communications between medical and life science professionals and the companies who provide this community with products and services.

<http://www.scienceboard.net/>

**USDA Animal and Plant Health Inspection Service – Biotechnology** - APHIS' Biotechnology Regulatory Services regulates the introduction (importation, interstate movement, and release into the environment) of genetically engineered organisms that may pose a risk to plant health.

<http://www.aphis.usda.gov/biotechnology/index.shtml>

## **ANTI GMO GROUPS/ORGANIZATIONS**

Generally, supporters of organic and natural products and some environmental groups are opposed to GM crops and products. There is strong opposition in Japan and Europe.

**Australia – GreenLeft** – In November 2008, a crowd of 1000 people marched through the Perth CBD to Parliament House on October 30 to tell the Western Australian government to keep the state GMO (genetically modified organism)-free.

<http://www.greenleft.org.au>

**Brazil - Assessoria e Serviços a Projetos em Agricultura Alternativa** - a Brazilian organisation that opposes the use of GM crops.

**Canada - Action Group on Erosion, Technology and Concentration** - ETC Group is dedicated to the conservation and sustainable advancement of cultural and ecological diversity and human rights. To this end, ETC Group supports socially responsible developments of technologies useful to the poor and marginalized and it addresses international governance issues and corporate power. A 2008 report criticizes patents on biotechnology traits that would help meet climate change challenges. It equally criticizes government and non-government organizations which partner with private patent holders.

<http://www.etcgroup.org/en>

**Canada – Canadian Biotechnology Action Network** – The Canadian Biotechnology Action Network (CBAN) is formed from a collaboration that began in 1999 when 23 environmental, social justice and consumer groups met in Ottawa to create an informal partnership on the issue of genetic engineering.

**Europe - Food and Democracy** - The 5th European Conference on GMO-Free Regions "Food & Democracy" will take place in Lucerne (Switzerland) on April 24th and 25th, 2009. The organizers have drafted a letter to the ministers in charge calling upon them to vote against the forced waiving of the national bans on GMO planting in Hungary, Austria, France and Greece and against the approval of new GMO crops for cultivation in Europe.

<http://www.gmo-free-regions.org/>

**International - Greenpeace** – is an independent global campaigning organization that acts to change attitudes and behaviour, to protect and conserve the environment and to promote peace

- believe that GMOs should not be released into the environment as there is not adequate scientific understanding of their impact on the environment and human health.
- advocate immediate interim measures such as labelling of GE ingredients, and the segregation of genetically engineered crops and seeds from conventional ones.
- also oppose all patents on plants, animals and humans, as well as patents on their genes. Life is not an industrial commodity. When we force life forms and our world's food supply to conform to human economic models rather than their natural ones, we do so at our own peril.

<http://www.greenpeace.org/international/campaigns/genetic-engineering>

**International Federation of Organic Agriculture Movements (IFOAM)** - IFOAM is opposed to genetic engineering in agriculture, in view of the unprecedented danger it represents for the entire biosphere and the particular economic and environmental risks it poses for organic producers. IFOAM believes that genetic engineering in agriculture causes, or may cause:

- Negative and irreversible environmental impacts
- Release of organisms which have never before existed in nature and which cannot be recalled
- Pollution of the gene-pool of cultivated crops, micro-organisms and animals
- Pollution off farm organisms
- Denial of free choice, both for farmers and consumers
- Violation of farmers' fundamental property rights and endangerment of their economic independence
- Practices which are incompatible with the principles of sustainable agriculture
- Unacceptable threats to human health

Therefore, IFOAM calls for a ban on GMOs in all agriculture.

[http://www.ifoam.org/about\\_ifoam/index.html](http://www.ifoam.org/about_ifoam/index.html)

**Japan - Consumers Union of Japan** – is a politically and financially independent non-governmental organization.

<http://www.nishoren.org/en/>

**Japan - NO! GMO Campaign** (Japanese)

<http://www.gmo-iranai.org/>

**Japan Organic Agriculture Association** - includes farmers, consumers, researchers, and others, totaling around 3000 individuals and 100 groups across Japan. In addition to practicing organic agriculture, many urban producers are involved in teikei, along with a wide variety of other activities.  
<http://www.joaa.net/english/index-eng.htm>

**Japan Organic and Natural Foods Association**  
<http://www.jona-japan.org/english.html>

**UK – Soil Association** - UK's leading environmental charity promoting sustainable, organic farming and championing human health. The Soil Association believes that the risk of using genetic engineering in agriculture is too great and genetic modification has no place in the production of safe and healthy food.  
<http://www.soilassociation.org/>

**UK – Combat Monsanto** - A group of NGOs under the form of a Citizen Interest Group <http://www.combat-monsanto.co.uk/>

Combat Monsanto members include:

- Greenpeace – see International - Greenpeace
- France - Fondation sciences citoyennes - [http://sciencescitoyennes.org/IMG/pdf/Charta\\_english.pdf](http://sciencescitoyennes.org/IMG/pdf/Charta_english.pdf)
- Association for the Taxation of Financial Transactions to Aid Citizens - Today, the Attac network is present in many countries and is active on a wide range of issues: the WTO and international financial institutions, debt, taxation of financial transactions, tax havens, public services, water, free-trade zones (Mediterranean, American, European etc.) - <http://www.attac.org/>
- UK –Sherpa – The SHERPA partnership was formed for the SHERPA project (2002-2006) and drew from research-led universities with an active interest in establishing an example of a then-new concept - an open access institutional repository - <http://www.sherpa.ac.uk/index.html>
- Friends of the Earth - the world's largest grassroots environmental network - <http://www.foei.org/>

**US - Institute for Responsible Technology (IRT)** - to promote the responsible use of technology and stop GM foods and crops through both grassroots and national strategies.

From their website: You may have heard the FDA and food industry claims that genetically modified (GM) foods are safe, properly tested, and necessary to feed a hungry world. UNTRUE! Genetically modified organisms (GMOs) are one of the most dangerous and radical changes to our food supply. These largely unregulated ingredients found in 60-70% of the foods in the US, are well worth the effort to avoid them. Fortunately, health-conscious consumers, retailers, distributors, manufacturers and growers are participating in The Campaign for Healthier Eating in America, which will help eliminate GMOs from thousands of food products. Their efforts will make it easier for you to avoid the serious health risks of eating GMOs and to feed your family a healthier “non-GMO” diet. The campaign’s goal is to stop the genetic engineering of the entire US food supply.

- campaign for Healthier Eating in America  
<http://www.responsibletechnology.org/>

**US – Non GMO Project** – is a non-profit collaboration of manufacturers, retailers, processors, distributors, farmers, seed breeders and consumers. Will offer a “Non-GMO Project Verified” seal to identify for consumers products that meet the Standard (starting October 2009).

<http://www.nongmoproject.org/>

**US - Organic Consumers Association** - OCA's overall political program is the Organic Agenda 2005-15, a six-point platform calling for:

- The conversion of American agriculture to at least 30% organic by the year 2015, including major reforms in agricultural subsidies and appropriations to help family farmers make the transition to organic, develop local and regional markets, and adopt renewable energy practices.
- Fair Trade and economic justice, not so-called corporate-driven "Free Trade" as the global norm.
- A global moratorium on genetically engineered foods and crops.

<http://www.organicconsumers.org/>

OCA's Campaign to Mobilize One Million Consumers to End Monsanto's Global Corporate Terrorism

<http://www.organicconsumers.org/monlink.cfm>

**US - Sierra Club** – The Sierra Club urges full public disclosure, discussion and evaluation of the potential hazards, the potential benefits, and policy options for genetic engineering research and the development and use of products from that research.

“We urge the development of adequate regulatory, legislative, and other controls and that these decisions be based on a reverence for nature and life, as well as socioeconomic equity”.

“We call for acting in accordance with the Precautionary Principle, meaning that when an activity raises the possibility of serious or irreversible harm to the environment or living creatures, precautionary measures that prevent the possibility of harm shall be taken even if the causal line between the activity and the possible harm has not been proven”.

“In accordance with this Precautionary Principle, we call for a moratorium on the planting of all genetically engineered crops and the release of all GEOs into the environment, including those now approved. Releases should be delayed until extensive, rigorous research is done which determines the long-term environmental and health impacts of each GEO and there is public debate to ascertain the need for the use of each GEO intended for release into the environment”.

<http://www.sierraclub.org/biotech/>