who benefits from gm crops?

monsanto and its corporate driven genetically modified crop revolution

Friends of the Earth International

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key facts

a. ten years of gm crops

The first significant planting of genetically modified (GM) crops took place in 1996. Ten years on, GM crops have failed to deliver the promises made by the biotech corporations. Moreover, the introduction of GM crops has increased the biotech industry's control over the seed supply, most notably by Monsanto, the world's biggest seed company. The last decade also shows that Monsanto has an undesirable influence over agriculture and food policies in many countries.

b. who benefits from gm crops?

1. Rapid penetration is the result of aggressive biotech industry strategies. The increase in GM crops in a limited number of countries has largely been the result of the aggressive strategies of the biotech industry, particularly Monsanto, rather than the consequence of the benefits derived from the use of this technology. The GM crops commercialized to date are orientated towards maximizing benefits for the agribusiness and seed industries that control GM traits and the chemical products associated with GM crops.

2. GM crops have failed to tackle hunger and poverty. Most GM crops commercialized so far are destined for animal feed, not for food, and none have been introduced to address hunger and poverty issues. GM crops in developing countries have been grown mainly as export cash crops, sometimes at the expense of local food production. In Argentina, the second biggest producer of GM crops in the world, only 2% of the soya stays in the country. Other developing countries, such as Indonesia and India, have experienced substantial problems with Monsanto's GM crops, often leaving farmers heavily indebted. Monsanto continues to introduce aggressive royalty initiatives in South America to increase its profits.

3. No benefits for consumers. GM crops are not cheaper, are not better in quality and do not present any benefits for consumers. This is now even recognized by some parts of the biotech industry. After 30 years of research and public money, only two modifications are grown commercially to any extent: herbicide tolerance and insect resistance.

4. No benefit for the environment. Monsanto's Roundup Ready soybeans, the most extensively grown GM crop today, has led to an increase in herbicide use. Independent reports from the US shows that since 1996, GM corn, soybean and cotton have led to an increase in pesticide use of 122 million pounds (55 million Kg). The intensive cultivation of soybeans in South America is also fostering deforestation, and has been associated with a decline in soil fertility and soil erosion.

5. No benefit for the animal feed industry. Despite the fact that virtually all GM crops are destined as animal feed, the feed industry itself is not getting any benefit directly related to the genetic modification. In November 2005 the European feed industry (FEFAC), a major importer of soya for animal feed, declared that it "has no direct advantage from the presence of residues of herbicide resistant genes in the products they buy. The industry is therefore not prepared to pay for the use of this technology."

c. few crops, few countries, limited uses for limited markets

1. Few GM crops, most for animal feed and highly processed products. Over 95% of the GM crops commercialized today are GM soy, maize and cotton. GM soy consists in over 60% of the total area, maize over 20% and cotton the rest. The technology is limited to those three crops and two GM traits: herbicide tolerant and insect resistance. Most production of GM soya and maize in the world is destined to animal feed or heavily processed food products.

2. Few countries. During the first seven years of cultivation, between 1996 and 2002, over 90% of the global surface of GM crops was concentrated in just three countries: the United States, Argentina and Canada. In 2004, more than 84% of GM crops were still concentrated in these same three countries, although the areas under cultivation in Brazil, China, and India has grown progressively over the past three years.

3. Corporate concentration. Three companies - Monsanto, Syngenta, and Bayer – are responsible for virtually all of the commercially released GM crops in the world today. Monsanto is by large the top GM crop leader. The company is responsible for around 90% of all GM traits used around the world, and has now become the world's biggest seed company.

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d. current situation in the world today: monsanto claims and plans

1. Monsanto at the forefront of the worldwide GM crop push. In order to maximize profits from its GM seed business, Monsanto is at the forefront of the push for regulatory clearance for GM products in numerous countries. The company aims to aggressively displace conventional seeds with its patented GM varieties, particularly soy, corn, canola and cotton. It is striving for a world in which the only agriculture is genetically modified, and predicts that "full adoption of GM crops globally would result in income gains of US$210 billion per year within the next decade, with the largest potential gains occurring in developing countries at a rate of 2.1 percent gross national product per year".

2. Monsanto has an undesirable influence over national and international governments. Monsanto has been in the driver's seat when the US, Brazil and other countries developed GM legislation, resulting in industry-friendly policies. In Paraguay, India and Brazil Monsanto products were grown in areas where they were forbidden, paving the way for eventual legal authorisation. In Indonesia the company bribed government officials to obtain regulatory approval for its crops. Many governments have adopted the company's claims that GM products are good for the environment and will contribute to the alleviation of poverty and hunger.

3. North America

- Few crops and traits commercialized. Very limited range of GM crops grown. As of July 2005, the US Department of Agriculture (USDA) had approved 66 distinct biotech 'events' for commercial use, but since the 1990s only four crops with two traits have been grown to any significant extent. The number of permits granted for field trials of GM crops in the US climbed steadily from 1987 to 2002, but has since leveled off.

- Monsanto and the biotech industry have designed the US regulatory system. The US regulatory system has been driven by biotech industry lawyers. As the former official responsible for agricultural biotechnology at the U.S. Food and Drug Administration affirmed: "in this area, the US government agencies have done exactly what big agribusiness has asked them to do and told them to do".

- Lack of results: failure to introduce new generation of GM crops. The biotech industry has failed to introduce new 'second generation' GM crops with consumer benefits, and a 'third generation' with pharmaceutical drugs and industrial compounds. After 30 years of research, only two modifications have made it to the marketplace on any scale: herbicide tolerance and insect resistance. The biotech industry continues to focus its development efforts on the same traits, crops and applications that it did in the 1990s, and animal feed is the exclusive or primary intended use of most next-generation GM crops.

- The assault on US farmers. Monsanto continues to harass and sue farmers for doing what they have been doing for centuries: saving seeds. Thousands of farmers have been investigated by Monsanto: some have settled, but others have landed in court, where they face a very unbalanced situation, as their legal resources are far less than those of the multi-billion dollar company.

4. Latin America.

- Taking over the main soy exporters. Monsanto has been aiming at taking over the largest producers and exporters of soy. The top producers besides the US are in South America: Argentina, Brazil, and Paraguay. Monsanto's GM soy expanded rapidly in Argentina since 1996, but was not authorized for seven years in Brazil and Paraguay. Despite the lack of authorization, de facto contamination from illegal growing of Monsanto seeds led to the approval of GM soy in 2003/4.

- Monsanto taking over farmers rights: the battle over royalties. Monsanto is pursuing an aggressive strategy of obtaining royalties from the use of its GM soy. It has targeted the main world soy exporters and producers in South America, and whilst several temporary agreements have been reached in Paraguay, Uruguay and some Brazilian states, protests are growing. The Argentinean government opposes Monsanto's proposals, accusing the company of abuse. In July 2005 the Seed Producers Association of Rio Grande do Sul State (Apassul) in Brazil rejected a royalty agreement initially agreed before between Monsanto and the Brazilian Association of Seeds.

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- Taking Argentina to European Courts for presence of Monsanto's gene in soybean products. In June 2005 Monsanto filed lawsuits regarding the shipment of Argentinean soybean products to the Netherlands and Denmark, arguing a possible infringement of its patent rights on the Roundup Ready gene in Europe. Monsanto took samples of Argentinean soy meal as transport ships arrived at customs points, claiming property rights not just for the seeds themselves but for the products obtained from the seeds.

- Human rights violations. In Paraguay, soy cultivation – most of it GM - expels thousands of small farmers from their land each year. Human rights violations and forced evictions of peasant communities by soy landlords have been documented in recent years.

5. Asia

- Monsanto abandons commercialization of Bt cotton in Indonesia. In Indonesia, despite the promises of Monsanto and the propaganda over the benefits of Bt cotton, GM crops ended in failure. Many farmers complained about the claims of the superiority and performance of the genetically engineered cotton, and criticized Monsanto for its false promises. In 2003 Monsanto abandoned the commercialization of Bt cotton in the country.

- Monsanto used bribery. An investigation by the U.S. Securities and Exchange Commission revealed that over US$700,000 in bribes was paid by Monsanto to at least 140 current and former Indonesian government officials and their family members between 1997 and 2002, financed through the improper accounting of Monsanto's pesticides sales in Indonesia.

- The three first varieties of Bt cotton introduced in India have been banned in the State of Andhra Pradesh. In India Bt cotton was introduced amidst controversy and a contamination episode at the end of 2001, catalyzing its approval a few months later in 2002. In May 2005, India's Genetic Engineering approval committee (GEAC) refused to renew the licenses for the sale in Andhra Pradesh of Monsanto's first three GM cottonseed varieties authorized for commercialization in India. Farmers have complained about their poor performance.

- Royalty controversy ignited in Asia. In India on the 2nd January 2006 the Andhra Pradesh Government complained to the Monopolies and Restrictive Trade Practices Commission against Monsanto on what they considered an "exorbitant" royalty collection for Bt cotton. The Minister of Agriculture of Andhra Pradesh Mr. N. Raghuveera Reddy said that "The company – Monsanto - is compelling cotton farmers at gun point to pay the extra amount, even as it collected lesser and variable royalties in other countries."

6. Europe

- No new GM crops since 1998. No new GM crops have been authorized for planting in the EU in the last seven years. Despite its public image, Monsanto remains the leading applicant for GM foods and crops in Europe. In November 2005 Monsanto made predictions to its investors that it could take over all 90 million hectares of the continents maize production in the next 4 years.

- Commercial growing decreasing. The only country growing GM crops on any scale is Spain which has reduced the number of GM events permitted to just one. Future EU members, Bulgaria and Romania, have recently introduced policies that reduce the cultivation of GM crops in order to join the European Union.

- Moratorium enforced in Switzerland. In November 2005 Switzerland amended its constitution to prohibit the growing of GM crops for 5 years following the results of a clear-cut referendum.

- GM free regions and national bans. The number of countries banning GM products has increased in an attempt to stop the cultivation of a Monsanto GM maize. Similarily, the number of regions in Europe declaring themselves GM Free zones has grown to 165 with 4500 smaller areas declaring themselves also GM free.

- Europeans continue to reject GM foods. Public opinion in Europe remains steadily opposed to GM foods. European polls show that 70% of the public do not want to eat GM foods, and around 95% demand labeling in order to be able to make a choice. All major food manufacturers and retailers prohibit the use of GM ingredients in their products, in particular Monsanto's GM soya.

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7. Africa

- GM crops in Africa will not solve hunger. No GM crops have been introduced to address hunger.GM Bt cotton in South Africa Makhathini Flats in South Africa has been widely promoted by Monsanto as an African small farmer/GM success story, to raise them out of poverty. However, since 2000 the number of Bt cotton farmers in South Africa has gone down, many of them incurring losses and defaulting on their loans, raising strong questions about the impact of GMOs on poverty reduction

- Monsanto-funded Kenyan sweet potato fails. GM sweet potato in Kenya was presented as a key GM crop to help African agriculture. However by the end of January 2004, and more than US$10 million later, the results of the trials were quietly published in Kenya, showing that none of the claims were true. The results revealed that the non-GM sweet potatoes had yielded significantly more than the GM variety.

- A moratorium in South Africa. In November 2005, despite having introduced GM crops in several hundred thousand hectares, the South African government communicated that it had placed a moratorium on import approvals, pending the outcome of a socio-economic study that the Department of Trade and Industry is now in the process of conducting.

e. the gmo crop hype: unreliable monsanto and isaa claims

1. ISAAA misrepresents GM crop reality. The industry-sponsored International Service for Acquisition of Agribiotech Application's annual reports (ISAAA), published at the beginning of every year since the late 1990s, have misrepresented the performance of GM crops. They have lauded the benefits that have accompanied the introduction of GM crops everywhere, and have ignored the negative impacts and new problems that have accompanied the introduction of GM crops.

2. ISAAA has inflated its figures. There is a lack of accurate statistical data in most countries about GM crop plantings such as in South Africa, the Philippines and Brazil. Analyses by several authors have found ISAAA data to be vastly inflated in countries such as South Africa, Asia and even the US.

3. Farmers used as propaganda pawns. Monsanto and pro-biotech organizations are renowned for using so-called 'small farmers' from developing countries to promote the success of GM crops. One of the best known is TJ Buthelezi, who is promoted around the world as a poor farmer but in reality appears to be a wealthy South African farmer from the Makhatini Flats. Buthelezi even made an appearance at the launch of the US complaint against the European moratorium on GM foods at the World Trade Organization in 2003.

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