

Monsanto – waging a war on farmers and nature

Monsanto is one of the most powerful players in the global seed business today. Not only does it own a huge portion of the world's commercial seed, but it also wields a lot of power over global agricultural policy and practice. How did a company that started out by making chemicals for warfare, gain control of our food? Monsanto operates in 80 countries world-wide, 9 of which are in Africa. In South Africa, Monsanto controls half of the maize seed market and is in complete control of the genetically modified (GM) maize seed market. This notorious company has tremendous power over the farmers that produce our staple food.

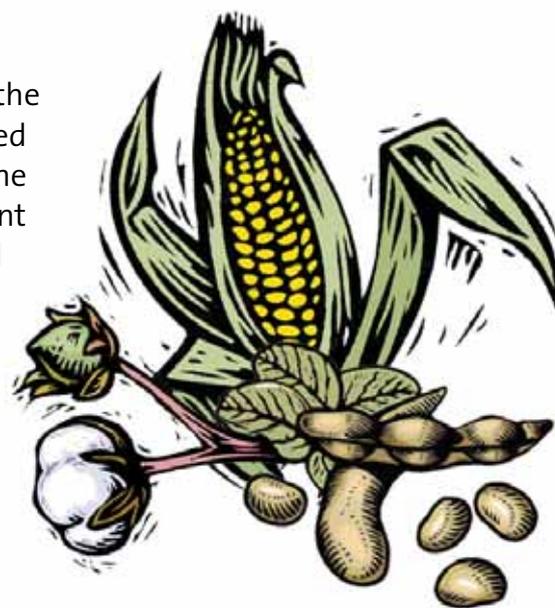
Monsanto – from chemical producer to food producer

Monsanto's origins

Monsanto was founded in 1901, but really came into its own after the Second World War when it established itself as a chemical giant with strong links to the US military. It was Monsanto's chemical, Agent Orange that was used to strip forest away in the Viet Nam war, leaving the enemy no place to hide. Agent Orange has left a legacy of health problems and birth defects that persist today. Another well-known Monsanto chemical, RoundUp, was sprayed over the Columbian countryside in the US "war on drugs".

Private ownership of seeds

During the 1950's new breakthroughs in plant breeding and the diversion of war chemicals into agricultural production created a new system of farming that has come to be known as "The Green Revolution". By the 1970's agricultural research and plant breeding was no longer being done by public bodies, instead it was being taken over by the private sector. Unlike public institutions, private companies are driven by returns and profits. The creation of "plant breeders' rights" under The International Union for the Protection of New Varieties of Plants (UPOV) strengthened the position of plant breeders



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at the expense of farmers. It created legal restrictions on what farmers could do with seed. In 1980, intellectual property rights took a shocking new direction when the US Supreme court allowed a living organism that was genetically modified to be patented. Patents had traditionally been used to protect mechanical inventions, but now humans and researchers could be given ownership of living entities. This was based on the argument that by modifying the genes the scientist is creating something new. A patent gives an inventor the sole right to profit from their invention for a period of time.

This became a great financial incentive for private plant breeders. One of the reasons Monsanto has been able to become so powerful is that it has been allowed to patent traits in GM seeds. This has given them an enormous amount of control over farmers and breeders. For example, they can make farmers sign contracts agreeing not to replant seed or share seed. Monsanto's ownership rights can also stop other plant breeders from using its technology. Instead, if others want to use Monsanto's technology they must enter into licensing agreements and pay Monsanto royalties to use and sell their GM traits.

Pairing seeds with chemicals

Monsanto's chemical RoundUp first began to be used as an herbicide (weedkiller) in 1974. The key ingredient in their new invention was a chemical called glyphosate. Monsanto's research argues that glyphosate is hardly toxic to humans and animals and this is accepted by our government. Glyphosate has become a very popular choice for weed control in farmer's fields as well as for roadsides, railways and even home gardens. Since the 1990s, glyphosate has been the world's most traded active ingredient in herbicides. The invention of genetic engineering allowed Monsanto to engineer crops that could be sprayed with glyphosate and suffer no harm. This would reduce the need for labour on farms because farmers would be able to do aerial sprays of RoundUp to get rid of weeds without worrying about harming their crop. The patented trait in the GM seed and the patented chemical would go hand in hand, each promising hefty profits for the company. Herbicide tolerant crops are currently the most widely grown GM crops world-wide; in 2011 about 59% of GM crops were herbicide tolerant.

Now all Monsanto needed was good seed to work with and the distribution networks to get it to farmers. They accessed this by buying up some of the largest seed companies in the world, for example they bought:

Company	Price Tag
DeKalb genetics	US\$ 2.5 billion
Delta and Pineland	US\$ 1.5 billion
Seminis	US\$ 1.4 billion
Holden's Foundation Seeds	US\$1.02 billion

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Monsanto in control in South Africa

Monsanto did what Monsanto does when they entered the South African seed market; they bought up two of South Africa's largest seed companies, Sensako and Carnia. Today it controls half of the nation's seed industry. All of the permits for GM varieties grown in South Africa have been given to Monsanto, except for one, which is owned by Syngenta. When you think of GMOs in South Africa, think of Monsanto.

Monsanto owns over 50% of South Africa's maize seed market and practically all of the GM maize seeds sold in South Africa. Monsanto also completely controls the soya and cotton markets in the country and owns many seed registrations of vegetable, oilseed and grain crops. Over half of all wheat varieties registered in South Africa are owned by Monsanto, through its subsidiary Sensako. Don't forget that GMOs and chemicals go hand in hand; when farmers buy Monsanto's GM seeds, they must also buy Monsanto's chemicals. Monsanto thus controls over 60% of the glyphosate market in the country. South African farmers and consumers are at the mercy of this giant who can decide what kinds of seed to make available and at what prices.

Maize

Monsanto has a monopoly over the GM maize market in South Africa. Maize is an important food crop for the country as well as constituting the staple diet of South Africans. About 77% of maize in South Africa is now genetically modified. In 2011 the South African maize seed market was worth about R2.1 billion, earning Monsanto about R1.5 billion in that year!

Just two companies in control of South Africa's seed

South Africa's seed industry is at great risk of being owned by just two American seed corporations – Monsanto and Pioneer Hi-Bred. Monsanto already owns half of South Africa's seed industry and Pioneer Hi-Bred has just bought up the other half, by purchasing South Africa's largest seed company, Pannar. The ACB fought against this purchase at South Africa's Competition Commission, saying that this move would increase the price of seed unfairly. It would also give the American company ownership of all the breeding work, seed and other plant material Pannar has gained in South Africa and Africa over the years¹. The Competition Commission and the Competition Tribunal ruled that Pioneer Hi-Bred was not allowed to buy Pannar. However, when Pioneer appealed the decision, the Competition Appeal Court gave Pioneer Hi-Bred permission to go ahead. The matter is not quite settled yet because there will be another round of appeals.

How will this purchase impact on South African farmers and ultimately consumers? With only two players in the market, farmers have much less choice of seed. Lack of choice means that seed prices can rise unchecked. For example, between June 2008 and June 2009 local farmers got 6.2% more money for their produce, but paid 23.2% more for seed and chemicals. Monsanto's dominance in the seed market is already making an impact. With Pannar out of the picture it will only get worse. See the factsheet *Pioneer/Pannar Seed Merger: Deepening Structural Inequalities*.

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Other companies have entered into agreements with Monsanto to use their technology in their breeding programmes. There are over 140 GM maize varieties registered in South Africa. Of these only one does not contain GM technology owned by Monsanto. Monsanto's control over this market has resulted in GM maize seed prices rising by over 45% in the last 5 years. In the same period the price that farmers receive for maize has remained the same.

The South African Competitions Commission defines a firm as "dominant" if they control more than 45% of any market. The Competition Act says that dominant companies may not charge excessive prices for their products, that is, prices that do not relate to the value of the product. By this definition, Monsanto is dominant in the South African seed industry and has an absolute monopoly in the GM seed industry. Is their pricing structure legal and fair? In 2011 several groups in South Africa including the ACB, the Surplus People Project (SPP), Trust for Community Outreach (TCOE), the Food Sovereignty Campaign and Biowatch South Africa submitted a report to the Competition Commission requesting that the Commission investigate Monsanto's extraordinary market power in South Africa. The outcome of this effort is still pending. Governments are afraid of Monsanto.

The factsheet ***Genetically Modified Maize in South Africa*** gives more in-depth information.

Soya

While soya is not a major commercial crop in South Africa, it has been expanding at a steady pace over the years. In particular, there has been a huge increase in soya planting in the last four seasons, causing the value of the soya seed market to jump from R18 million to R78 million! All of the soya beans that are sold in South Africa contain Monsanto's "RoundUp Ready" trait. When farmers buy "RoundUp Ready" GM seed, they need to buy the correct herbicide to go with it. They might choose

Monsanto misleading the public

It is probably fair to say that the vast majority of the world's population knows very little about genetic engineering. What people do know is what they have heard in the mass media, often informed by Monsanto's extensive PR campaign. In December 2007, Monsanto placed an advert in *You Magazine*, a widely read South African publication. Their advertisement claimed that "no negative reactions have ever been reported" in relationship to GM food. An organic farmer in the Eastern Cape, who was well aware of the many studies published showing health and environmental impacts, laid a complaint with the Advertising Standards Authority (ASA) of South Africa. Judge King ruled that Monsanto had lied in their advertisement and ordered that it be withdrawn. He warned Monsanto that the advert "may not be used again in its current form until new substantiation has been submitted".

Barely 6 weeks later, Monsanto issued a media statement claiming that the ASA had accepted its "GM Safe" advertisement and its new wording that, "no substantiated scientific or medical negative reactions to GM food have ever been recorded". A second legal challenge was launched and Judge King again ruled that their advert was not true. This comment, 'that there have never been recorded instances of harm from GMOs' is often still used by the GM industry and widely believed by an unsuspecting public.

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not to buy Monsanto's RoundUp and go for a cheaper generic herbicide, but then Monsanto will not compensate these farmers for any problems that may arise with their crop. The factsheet ***Genetically Modified Soya in South Africa*** deals with this topic in more depth.

Cotton

The market for GM cotton is very small. Less than 20 000 ha is grown. Monsanto also has majority control over this market; they own 14 out of 15 registered varieties. See the factsheet: Genetically Modified Cotton in South Africa for the story of GM cotton on the Makhathini Flats in KwaZulu Natal and how they pushed this technology onto small-scale farmers with disastrous consequences.

Spread of glyphosate crops in South Africa

Until recently, insect resistant crops were the most widely planted GM crops in South Africa. However, in the last five years we began to see more and more herbicide tolerant (RoundUp Ready) crops coming onto the market. For example, in 2006 approximately 137 000 hectares of herbicide tolerant yellow maize was planted in South Africa. By 2010 this had more than doubled to over 340 000 hectares. This growth rewards Monsanto handsomely as it dominates the glyphosate market, the chemical that is used on herbicide tolerant crops. The increased use of this chemical is very worrying. Although Monsanto claims that it is safe, new studies are now coming out warning us that glyphosate has serious health and environmental impacts. Currently there is no independent monitoring of these impacts in South Africa. [Please keep a watch out for several papers that we will publish on glyphosate]

Conclusion

Monsanto has become a powerful player in the global seed industry, wielding immense power over agricultural policy and the agricultural practices of farmers. South African farmers are becoming ever more entrapped in Monsanto's system of patented seed and chemicals; once they are caught in this trap of expensive seed and linked inputs. This is truly a hungry corporation whose appetite never seems to be satisfied. Since Monsanto came into South Africa it has bought up the competition to control more than half the country's seed industry, managed to gain dominance over our country's staple food, maize, as well as gain complete control over the soya and cotton markets. Monsanto holds South Africa's agriculture, food security, and farmers in its vice-like grip.

References:

The information in this fact sheet has been taken from the in-depth publication by the African Centre for Biosafety: ***Heavy Hands. Monsanto's control in South Africa***; available at: <http://www.acbio.org.za/index.php/publications/gmos-in-south-africa/357-heavy-hands-monsantos-control-in-sa>

¹ See: ACB 2011. **Submission to the Competition Commission regarding the proposed acquisition of Pannar Seed by Pioneer Hi-Bred.** http://www.acbio.org.za/images/stories/dmdocuments/compcom_submission_pioneer_pannar.pdf (accessed 26 August 2011)