

Monsanto: Planting Local Seeds,
Sprouting Global Effects

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Abstract

This paper examines the activities of Monsanto, specifically its role in the seed industry and the implications for the autonomy of farmers and food security. The study situates the role of Monsanto in the broader context of globalization. The paper argues that today's globalized world has led to the creation of multinational monopolies, like Monsanto, who are tightening their grasp on the world seed market, striving for market supremacy to the detriment of farmers' rights, food security in particular and the global environment at large.

Introduction

Food and agriculture, the very essence of human life and sustainability, has increasingly become a commodity that is controlled by genetic engineers and large multinational corporations. "As with most areas of business, a handful of corporations now dominate the international food chain, with over 69 per cent of it controlled by just ten companies, which are involved in seeds, fertilizers, pesticides, processing and shipments" (Rees, 2006: 7). In 1994, the United States (US) government along with the World Trade Organization (WTO) provided the first global mechanism for patents on living beings which paved the way for the gene revolution and the patenting of crops (Rees, 2006: 6). The result of improvements and advancements in the field of biotechnology, such as patents on living organisms, saw larger companies swallowing up smaller ones in order to gain a monopoly in the global food market. "By 2001, only four corporations sold practically all GM [genetically modified] seeds with a staggering 91 per

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cent sold by Monsanto alone” (Rees, 2006: 7). “Monsanto is the world’s second largest agrochemical corporation, and the second largest seed company. In 2005, it had global sales of 6.29 billion -- 40 per cent from Roundup and other glyphosate products, and 34 per cent from seed and genomics” (Rees, 2006: 22).

Monsanto started at the turn of the century as a small chemical company in St Louis, Missouri. It has since transformed itself into the leading American multinational agricultural biotechnology corporation in the world with branches in various parts of the world. The company is a major player in the ‘life sciences’ industry. This century-old empire has created some of the most toxic products ever sold including Polychlorinated biphenyls (PCBs) and the herbicide, Agent Orange, used by the U.S. military in the Vietnam War (Inouye, 2007: 2).

Monsanto advertises itself as dedicated to improving agricultural performance, reducing its carbon footprint, improving biodiversity, and bringing economic improvements to farmers around the world (Monsanto, 2009). Monsanto’s website also indicates that it does business wherever crops are grown, has employees in almost every agricultural market, and purchases raw materials, supplies, and services in most world regions. Despite the way that Monsanto presents itself, critics have argued that it uses heavy-handed investigations and ruthless prosecutions that have fundamentally changed the way that many farmers farm (CFS, 2005).

Against the background of the foregoing, this paper examines one specific area of Monsanto’s activities – its role in the seed industry and the implications for the autonomy of farmers and food security. The study situates the role of Monsanto in the broader context of globalization and argues that today’s globalized world has led to the creation of multinational monopolies, like Monsanto, who are tightening their grasp on the world seed market, striving for market supremacy to the detriment of farmers’ rights, food security in particular and the global environment at large. To substantiate the argument, the study is divided into three main sections. The first section will examine the theoretical context of globalization and the agricultural dimension of globalization. In the second section, I will present material on some of the global aspects of Monsanto. The analysis is in section three and that is followed by a conclusion.

Globalization: The Theoretical and Agricultural Context

The multidimensional and ever-changing aspects of globalization make it difficult to pinpoint a definition that satisfies all parties. Steger (2003:13), offers us his definition of globalization: “a multidimensional set of social processes that create, multiply, stretch, and intensify worldwide social interdependencies and exchanges while at the same time fostering in people a growing awareness of deepening connections between the local and the distant”. Our contemporary period of globalization involves “the dramatic creation, expansion, and acceleration of worldwide interdependencies and global exchanges that have occurred since the early 1970s” (Steger, 2003: 35). This period is accompanied by the ascendancy of multinational corporations, the liberalization of trade, and the lessening of state interventions. “Gigantic flows of capital and technology have stimulated trade in goods and services. Markets have extended their reach around the world [and] huge transnational corporations, powerful international economic institutions, and large regional trading systems have emerged” (Steger, 2003: 37).

Non-governmental actors such as the International Monetary Fund (IMF) and the World Trade Organization (WTO) play a prominent role in the movement and lending of capital. Following the 1970s Organization of Petroleum Exporting Countries (OPEC) crisis there was an increased lending to poor countries. “The financial institutions used this situation to dictate advantageous entry terms for foreign corporations in the developing world, thus opening up national industries and natural resources for plunder” (Rees, 2006: 5). A move that Rees (2006:6) sees as undoubtedly increasing the power of biotechnology companies

Modern biotechnology, as we know it, started in the 1970s and relied on publicly funded research institutes until the 1990s when there was a shift to private sector institutions (Broerse & Bunders, 2005: 29). “Due to the dominance of the private sector – a position protected by intellectual property rights (notably patents) – the products that are developed are oriented toward large and lucrative markets, such as...human pharmaceutical and animal vaccines, plant improvements...and food processing (Broerse and Bunders, 2005: 30). Globalization is therefore accompanied by a shifting of power and decision-making away from the state and its public institutions into the hands of corporations and other private institutions. With reductions in the size of the state and a

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shift of power away from government and towards large corporations, transnational entities are able to put constraints on government. As the power of capital grows, nation-states become exposed to the increased power of markets. Along with the massive expansion of free trade, companies like Monsanto are able to make major gains in terms of ownership, wealth, and power.

The triumph of neo-liberal ideas and the displacement of state-managed economics have made Canada and other societies more and more reliant on market forces and economic liberalization. As Rees (2006: 6) explains,

the ideology of free trade, which has been on the increase since the 1980s, promoted by corporations in the WTO with the backing of many developed countries. Under free trade, state intervention in the economy is discouraged, particularly measures that protect industry...Free trade purportedly spurs competition between corporations, and yet these companies run near monopolies around the world, with 90 per cent of the export market for wheat, corn, coffee, tea, pineapple, cotton, tobacco, jute, and forest products controlled by five companies or less

Indeed, the theoretical belief that globalization and free trade will lead to freer markets does not quite fit with the resultant corporate monopolies that have emerged in our global, free-market era.

The globalization of agriculture can be examined with respect to three main areas: production, marketing, and consumption. Monsanto is primarily concerned with the production aspect considering their heavy influence and development in the seed industry. Evidence of the effects that globalization has had on agricultural production can be seen in new techniques like biotechnology and contract farming, which often times result in goods that are consistent with the needs of agro-based industries (Puplampu, 2006: 238). “Biotechnology... has become an integral part of the production process within global agriculture. At the core of the technological breakthroughs are large private research institutes in the North with enormous resources to sustain various research programmes and thus seek to benefit from the research findings” (Puplampu & Tettey, 2000: 259).

As globalizing food production and consumption practices change, so does our need to understand contemporary food governance, and the shifting role of nation-states in governing international food trade (Oosterveer, 2007: 14). Some of the challenges involve making distinctions between the public and the private sphere, incorporating the

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views of non-state social actors (consumers and NGOs), and the inadequacy of science-based politics in dealing with food risks in global modernity (Oosterveer, 2007: 15). In our era of globalization, it becomes difficult for nation-states to maintain their conventional food politics as “NGOs, businesses, and communities are playing important roles in the emergence of global environmental governance as we know it” (Oosterveer, 2007: 18). Genetically modified (GM) food governance in the U.S. is dominated by federal governmental institutions such as the Food and Drug Administration (FDA), a limited number of private biotechnology firms like Monsanto, and a few farmers’ organizations (Oosterveer 2007: 120).

The regulatory approach is based on the idea that society will profit more from GM technology if “governments interfere as little as possible and avoid the introduction of specific legislation” (Oosterveer,2007: 120), even when it comes to making decisions about food risks. Thus, “[t]he lack of labeling laws in the U.S. – is staggeringly undemocratic, because it removes the choice not to eat GM foods” (Rees, 2006: 160). The concern for consumer health and safety is undermined by the efforts made by big business to deem GM foods just the same as other foods while at the same time marketing biologically engineered foods as different and unique for the sake of profit (Rees, 2006: 161).

By early 2000, the allure of genetically modified (GM) crops had already grown considerably, with over 100 million acres growing on large capital-intensive farms in the US, Canada, Argentina, and Mexico (Madeley, 2000: 105). The perils of biotechnology lie in the ethical issues concerning genetic modification and the risks to human health and the environment associated with the production and consumption of genetically modified organisms (GMOs) and foods (Madeley,2005: 28-29). The commercialization of the global food trade has created a vast new market for the bio-tech lobby which is “a vast, ruthless, and well funded propaganda machine” (Rees, 2006: 8). During the 1990s, Monsanto “invested heavily in biotech research and spent almost \$10 billion globally buying up seed companies” (Rees, 2006: 22). Monsanto’s resonating effects on the global food and seed market have been felt at every corner of the globe. The corporate monopoly of the food market has left many asking who is really in control when it comes to public and personal decision making about the foods we eat.

Monsanto as a Global Player in the Seed Industry: Analysis and Critique

The global era brought us the concentration of capital as well as the growth of multinationals. This puts big business in a position where they can exercise veto power on many government initiatives as well as obtain the go-ahead on pursuing business proposals with little government intervention. The investment of time and money into the lobbying of international regulatory bodies aids large corporations by removing barriers to corporate globalization. In order to fully infiltrate the market and operate free of government constraints, Monsanto promotes GM foods in a global campaign that influences which experts get on international scientific committees and promotes their views through supposedly independent scientists (Rees, 2006: 101). Monsanto is part owner of the Biotechnology Research and Development Corporation (BRDC) which combines academia, government, and the private sector in close working relationships (Inouye, 2004: 6). Thus, Monsanto sponsors research at many public universities and also works closely with the Agricultural Research Service, the U.S. Department of Agriculture's (USDA) key research body. By infiltrating the market on such varied levels, Monsanto has managed to create a corporate monopoly wherein it has saturated the market and with the domination of the seed industry, they also control the very foundation of agriculture.

Free trade proponents assure the public that the elimination or reduction of trade barriers among nations will enhance consumer choice and increase global wealth, while securing peaceful international relations and spreading new technologies (Steger, 2003: 41-42). Some of the main proponents of economic globalization such as technological advancement, internationalization of production and marketing activities, and the intensification of economic inter-relations, have all been central factors in Monsanto's global success. Monsanto's activities have created a situation in which farmers and non-farmers are concerned about food safety, environmental health, farmers' rights, and the corporate takeover of food systems (Inouye, 2007: 4-5). This trend reduces the choices available to both consumers and farmers. The global food trade has become such a seamless, liberalized commodity that often the protection of human health and the natural environment come second place in the global food market. Monsanto's influence on the

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highest level of regulatory decision making gives them an enormous amount of power and control over the global food supply chain.

In the United States, Monsanto controls 88 percent of the GM seed market and has global offices and plants in over fifty countries. In 2000 Monsanto donated its genomic research 'free of charge' and 'royalty free' in part of a larger strategy to introduce its GM crops and to build confidence and acceptance for mass commercialization of major cash crops (Inouye, 2004: 13). Monsanto's main research and development focuses on vital crops such as soybeans, cotton, and corn, in countries like Brazil, India, and the Philippines, respectively. Third world markets in India, for example, have also been a major target of Monsanto. It has also been the scrutiny of the public eye on issues such as bovine growth hormone, the bribing of environmental assessment agencies, false advertising, and accusations of employing child labour.

One monopolizing tactic used by Monsanto is the contractual binding of its farmers to the use of its genetically engineered seeds in an attempt to maintain control of patents and to remain the industrial leader in the field of biotechnology. Through the use of patents and other legal diction, Monsanto has created a situation where a non-engineered crop contaminated with patented traits effectively becomes the property of Monsanto (CFS, 2005: 7-10). As Madeley (2000) puts it: "patents are the lifeblood of [multi-] national corporations (94). Monsanto has sued numerous farmers for patent infringement in connection with its GM seeds. The Saskatchewan Organic Directorate (SOD), the Canadian Wheat Board and numerous other Canadian farmers have attempted to take Monsanto to court for contamination of their fields with GM seeds. Extremely telling is the case of Percy Schmeiser, a Saskatchewan farmer, versus Monsanto and its patent over its Roundup Ready canola plant gene. The Supreme Court of Canada ruled against the farmer which is "the first [incident] in which the top court of any country has ruled on patent issues involving plants and seed genes" (CBC, 2004).

Monsanto requires that farmers buy new seeds every season and makes it illegal to save the seeds for use in consecutive harvests. This has bred controversy over farmers, especially poorer ones, becoming dependent on seed suppliers. "Some 30,000 Canadian farmers use the special Monsanto canola seeds. It's estimated that 40 per cent of the canola grown in Canada is Monsanto's Roundup ready canola" (CBC, 2004). Monsanto's

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market success has been due to their aggressive acquisition of seed companies or establishing relationships with most of the major U.S. and international seed companies. In recent years, it has provided the seed technology for at least ninety percent of the world's genetically modified crops (CFS, 2005: 12).

One devastating reality of the liberalization of the seed sector is the high rate of suicides which, for example in India, have been directly related to high debt for purchase of seeds, agrichemicals, and pesticides (Shiva, 2002). This debt trap - the intrinsic outcome of capital intensive agriculture - has become problematic as corporations increase their control over seed supply. "The combination of concentration of the seed industry with the monopolies linked to Intellectual Property Rights (IPRs) can spell total disaster for the economic security of farmers and the food and ecological security of the country" (Shiva, 2002: 59). This monopoly control on seed linked with a corporate control over agriculture would threaten biodiversity conservation as well as farmers' survival and, without equivalent absorption in new industrial opportunities, could lead to social disintegration. Undermining food security will increase food imports and hence the foreign exchange burden, thus inviting deeper conditionalities from institutions like the IMF and the World Bank (Shiva, 2002: 61).

The Indian government has been working with the World Trade Organization (WTO) in the review of the Agreement on Agriculture in order to protect Indian farmers first and the global monopolies second (Shiva, 2002: 61). They are pushing for food security and the protection of small producers as well as the environment. This erosion of food security could create a food dependency in the global South and thus turn food into a weapon in the hands of industrialized countries (Shiva, 2002: 61). In Marie-Monique Robin's (2008) documentary on Monsanto a representative for Indian agriculture argues as follows: "If they control seed, they control food, they know it. It's strategic. It's more powerful than bombs. It's more powerful than guns." As Shiva (2002:62) puts it, "The human rights of farmers and poor consumers cannot be sacrificed merely for increased profits of global commerce" (62). Monsanto seems to think otherwise.

Another mechanism that enhances the power of Monsanto is the Uruguay Round agreement on Trade Related Intellectual Property Rights (TRIPS). This agreement globalized the patent system, enabling companies like Monsanto to put a patent on,

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essentially, nature. The agreement protects the interests of transnational companies and is a curious departure from the free trade principles of the WTO (Madeley, 2000: 96). “The TRIPS agreement was the brainchild of an industry coalition [and] the first initiative was taken by the Intellectual Property Committee which brings together 13 major US corporations including Monsanto” (Madeley, 2000: 96). By working closely with such major multi-lateral institutions, Monsanto ensures that it has a say in policy making. If the freedom of the market is the entity that makes decisions and the multinationals have saturated the market, then does the average consumer really have a choice? In the words of Canadian action group on Erosion, Technology, and Concentration (ETC Group 2006): “Who owns nature?”

Throughout the 1990s while North Americans, whether aware of it or not, were eating an increasing number of GM foods, a different uprising was occurring in Europe. Public controversies and a powerful alliance of professional environmentalists lead a revolt against GM foods and the uncertainties and risks involved in production and consumption. They sought to keep out U.S. biotech crops by blocking Monsanto from its plan to market the new foods in Europe (Pringle, 2003: 101). Political pressure towards the elaboration of an appropriate GM food governance network arose in order to harmonize the different opinions and review the existing regulations of the various countries that make up the European Union (Oosterveer, 2007: 123-124). European resistance was so widely heard that it did some serious damage to the distribution and exportation of many GM products, from seeds to packaged goods. U.S. GM food exports to Europe dropped substantially and the U.S. filed a complaint at the WTO due to the resulting financial damage (Oosterveer, 2007: 121).

Monsanto put itself in the public spotlight in its aggressive public relations campaign in Europe that backfired (Inouye, 2002: 5). Public resistance led to a focus on consumer choice through the labeling of the new products, more information from the biotech companies and more governmental control over the corporations (Pringle, 2003: 102). In 2001, in Canada, a bill that proposed mandatory labeling of GM foods was defeated in the House of Commons, despite consumer support. As Rees (2006:9) notes, over 90 per cent of Canadians want GM food labeled and 92 per cent are concerned about the long-term risks (9). The failure of the labeling effort, despite public support, accounts

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for some of the considerable disenchantment with the corporate world and leads to activist driven approaches to business ethics and corporate social responsibility (MacDonald & Whellams, 2007: 129). Savvy European consumers pushed for a mandatory labeling of GM foods whereas GM foods in the Canadian market have only a voluntary labeling standard.

Conclusion

Monsanto continues to be one of the most highly controversial corporations in the world today. Through a complex interaction of economic, political, and social factors, Monsanto has become one of the largest agricultural biotech companies in the world, controlling the very essence of plant life and food growth: seed. Monsanto has been involved in countless law suits and class action suits. Monsanto has worked its way into the Canadian agricultural market on numerous levels and has a tight grasp on farmers and their choices. Europeans, through public dissent and government policy making were able to considerably cripple Monsanto's sales as well as push for labeling standards and quality reassurance. It is in the best interests of Canadian consumers to demand better quality from food suppliers and to support organic and local farming practices.

In this era of an increasingly shrinking globe, we must ask ourselves the tough questions about what it will take to ensure food security and a safe and healthy environment for families. Public demand for food security could lead to a rethinking of the underlying concepts of globalization, such as trade, governance, and liberalization. We must also look at how these issues affect the Canadian job market, the farming industry, and working farmers. Resistance and public awareness has brought about some action, especially in the case of Europe, in attempts to regain some of the freedom that has been taken by multinational corporations like Monsanto. Not everyone can afford to be wary consumers, but today's most socially conscious consumers want to know where their food comes from, how it was grown, and whose hands helped bring it to the table. We must as globally conscious consumers, read labels, question marketing, and become involved and educated about the ongoing changes in agriculture and the implications for the food we are consuming and the cost it has on society.

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