

The Destructive, Genetically Compromising Story Behind Transgenic Agriculture: Monsanto is Not Just a Chemical Company Anymore They Are World's Largest Seed Company, Working to Corrupt the Gene Pool

Years ago when Jimmy Carter was U.S. President or maybe a bit before that, Monsanto found a Roundup-resistant bacterium in a waste dump near one of their plants. Roundup herbicide was first introduced in 1972, so the discovery was probably after that. "Eureka!" they thought: we can insert herbicide resistant DNA into food crops, so fields of food can be sprayed with Roundup to kill weeds without killing the crops. They thought the benefits would outweigh the costs, so they were not concerned about health and environmental implications. They could save farmers so much money on cultivation and weed control, farmers would demand their seeds as a way to keep themselves in business against the continuous cost-price squeeze imposed by federal farm policy and modern capital-intensive agriculture.

Monsanto's Market Domination Over Major Commodity Crops

Soon they were selling about 90% of the soybean seed, and about 85% of corn seed in the U.S. market. These are the nation's two biggest crops, but Monsanto also offered Roundup Ready cotton, canola, sugar-beets, alfalfa and more, often through licensing arrangements with other companies. Then, they added to stack of transgenes DNA from *bacillus thuringiensis* (Bt) to kill insects. Again, they showed no worry about environmental and health damage, including bee death; they were motivated to help farmers save on pesticide. By 2011, a quarter million U.S. farming customers had been attracted to the Monsanto approach to agriculture, or they had been forced to accept it, because it made farming cheaper, easier, and more competitive.

The only studies about the safety of Monsanto's patented crops have been made by the company or under contract for them, and they have not lasted long enough to allow health damage to emerge. No independent, objective, or long-term studies have been possible because the patent holder could prevent that. If studies are allowed, the findings can be embargoed if and when they are found to be adverse to corporate interests. The law serves corporations ahead of the public need and interest.

The Use of Patents to Impose Control over Farmers and Food

The right to obtain a utility patent on transgenic seeds allows Monsanto to impose control over farmers by adhesion contract. The act of opening a bag of Monsanto's seeds delivers control, and seeds from the grown crop may not be saved for later planting. New seed must be purchased every year. Also, farmers must buy only Monsanto's herbicide to use on the crop.

The patent on Roundup expired in 2000, so others can now make and sell Glyphosate herbicides, but Monsanto is still the largest seller because it requires buyers of its transgenic seeds to buy only Monsanto herbicide. These terms are monitored by dealers and by Monsanto's "security consultants." Violators are sued for breach of contract the same way farmers contaminated by Monsanto's transgenic crops can be sued for patent infringement. Even if Monsanto does not sue, threat of suit is an important part of their business strategy. It helps them force farmers to accept their transgenic farming system. Through contracts with distributors and dealers, they also make other seed unavailable.

The Abuse of Patent Law to Assert Control Over Farmers

If any farmer growing a non-transgenic crop were to sue Monsanto or one of their growers for contaminating their crop and seek damages for the trespass, Monsanto could counter sue for patent infringement. "Strict liability" in patent law allows Monsanto to sue anyone possessing their patented transgenic crops without having paid a royalty. It does not matter how the contamination occurred. Monsanto states on their Web site that they will not sue over "inadvertent, trace" contamination, but they do not define the terms, and the statement is not enforceable. They have refused to provide an enforceable legal covenant, and that asserts a veiled threat. They are free to change or withdraw their Web site "promise" at any time. In the *Bowman v. Monsanto* lawsuit, their own lawyers dismissed the language as vague.

Monsanto's Monopoly Control Over the Seed Market

To increase their control over the seed market, Monsanto has purchased over 70 other seed companies, and this gives them control over many of the best seed lines, displacing the agricultural

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universities as developers and protectors of the most productive and valued seeds. Control over hybrid seeds has moved from the public sector to the private sector as if that could serve the public interest. Rampant use of hybrid seeds was not a good idea even before hybrids were transformed and compromised through transgenic technology. The goal of most hybrid work has been to increase yields, but this carries nutritional, health, and other associated costs.

Through hybridization, the protein content of grains has been reduced and the starch content has been increased, and this, along with other issues, has contributed to growing obesity. U.S. agriculture is about yield and money, not about food quality or sustainability. Transgenics has made problems worse. As a result, new health issues have arisen. Among other details, it was possible in the past to nourish hogs on a corn diet because corn was nutritionally balanced with sufficient protein, but that is not possible anymore. Now, both corn and soy are needed to provide enough protein for the hogs to live. With high yields essential to farm survival, nutritional quality has suffered, and this was before transgenic technology created new proteins never seen before in human or animal diets. The result is allergies, toxicity, and other formerly unknown ailments.

Health Troubles Associated with Transgenic Food

Human digestive afflictions have increased by 40% since the introduction of transgenic food, and the fertility of animals and people has decreased. Birth defects have increased as have inflammatory conditions. Mental clarity has been affected. Leaky gut has resulted from the penetration of the gut wall by the Bt transgene. This is the same way Bt works to kill insects. Roundup Ready transgenes have migrated into gut bacteria making it Glyphosate resistant. All these conditions have been found to improve when transgenic food is eliminated from the diet.

The introduction of new genes changes the behavior of the gut bacteria in unknown and unstudied ways, but these bacteria are essential in protecting the health of the immune system. Immune health is centered in the intestines, so anything disrupting the pro-biotic bacteria in the intestines affects health. In addition, when the Bt transgenes penetrate the gut wall and get into the blood stream, they go directly to the pancreas to impair the production of insulin and digestive enzymes. This was seen by Arpad Pusztai and others in Europe in 1998. Damage to the kidneys, liver, reproductive organs, and animal growth rate was also observed by Pusztai's team.

The Destruction of Soil Fertility

These are not the only ways Monsanto's farming system affects health. Originally, they said Roundup was environmentally benign but the courts required them to stop saying that. Glyphosate dissipates by binding with soil minerals making them unavailable to the crops. This chelation process increases plant disease because the plants need minerals to stay healthy, and it also increases illness among the animals and people eating the transgenic crops. Worse, the Glyphosate can take decades to break down in the soil. Until it does, the bound-up minerals are unavailable to growing plants. Soil quality is compromised and additional minerals are added but not all of them, and some fertilizers add toxins to the soil. Arsenic is one of these. Meanwhile, the transgenes affect soil bacteria much as they do intestinal bacteria. This is not the full story; it is just a quick, initial summary, and it does not even begin to address long-term impacts revealed by studies in other nations or all the issues long ignored and neglected by the USDA and the biotech agribusiness companies, particularly Monsanto.

For more information, please see: <http://www.EndTransgenicTrespass.org>