



In Our Fields and On Our Plates: Ten Dangers of Genetically Engineered Foods

Seed and Crop Contamination—GE and non-GE seeds cannot coexist. Once released into the environment, pollen from GE crops can contaminate organic and non-GE crops. As a result, farmers of organic canola—a crop at particularly high risk of contamination—have stopped growing this important crop. Corn, cotton, sugar beets, and alfalfa are also at risk, not only from pollen drift, but also from contamination during storage, transporting, and processing.

Organic Farmers at Risk—Because GE crops are prohibited under the organic label, if organic fields are contaminated by cross-fertilization or organic livestock consume contaminated feed, a farmer cannot sell those products as organic. Alfalfa contamination is particularly dangerous for organic farmers. Alfalfa is used in many organic farmers' crop rotations and as a key feed for livestock.

Reduced Consumer Choice—Monsanto, along with a handful of other multinational corporations, control the vast majority of the commercial seed supply, and by extension, exert tremendous influence over what we eat. And, as GE crops contaminate non-GE crops, consumers will have even fewer options. Moreover, GE foods are not labeled, making it difficult for consumers to know which foods contain genetically engineered ingredients.

Ownership of Nature—Ethically, genetically engineered foods offer many challenges. Seed, once common property of past, present, and future generations, has been privatized, patented, and made into a corporate intellectual property right. GE seed commodifies life and turns a renewable resource into a non-renewable, non-reproducing product. Furthermore, many people believe that the transfer of genes between species is unnatural and unethical.

GE Foods Not Shown Safe to Eat—The scientific literature on long-term safety is divided, but many of the studies arguing that GE food is safe were conducted by the biotechnology companies that commercialized the crops. Monsanto has systematically prevented rigorous independent scientific research on GE foods by using patent rights to restrict access to seed. The health effects of GE foods could take decades to become known, just as it took decades for the damaging effects of trans-fats to be recognized.

GE Foods Do Nothing to Feed the World—Despite Monsanto's promises that genetic engineering would help feed a hungry world, any yield gains attributable to biotechnology have been modest at best. These results are not surprising, given that GE seeds were developed with herbicide resistance in mind, not yields, drought tolerance, or disease resistance. Furthermore, many GE crops have been developed for livestock feed, biofuel, and for use in high fructose corn syrup, for example, not to improve human nutrition.

The Rise of Super Weeds—Much like the overuse of antibiotics has created antibiotic-resistant super germs, the pervasive use of glyphosate has created weeds resistant to glyphosate, including pigweed, horseweed, and giant ragweed. Farmers are now having to resort to more labor-intensive weed management strategies and more toxic and complex mixtures of herbicides to combat these weeds, creating a dangerous chemical treadmill.

Pesticides, Herbicides, and Human Health—GE seeds are directly responsible for the increased use of pesticides and herbicides. GE crops require over 26 percent more pounds of pesticides per acre than conventional varieties. A common herbicide, glyphosate, has been linked to non-Hodgkin lymphoma, endocrine disruption, multiple myeloma, DNA damage, immune suppression, and miscarriage.

Global Economic Market Loss—At least 35 countries have laws in place that impose labeling or import restrictions on GE food, including the European Union (EU), China, Australia, Russia, and Japan, which receives 20 percent of U.S. food exports. Within just a few years of the introduction of GE crops in the U.S., almost the entire \$300 million in annual U.S. corn exports to the EU disappeared, and the U.S. share of the world soy market decreased.

GE Seeds Encourage Reliance on Fossil Fuels—GE seeds are tightly linked to the use of herbicides and pesticides made from petroleum products which contribute to global climate change. At a time when diversity and resiliency are needed to adapt to the effects of climate change, including extreme and unpredictable changes in weather, GE technology offers just the opposite—a reduction in crop diversity.