

Genetically Engineered Foods: Environmental Implications



The Ohio Ecological Food
and Farm Association

Since their market debut in 1996, genetically engineered (GE) foods, also referred to as genetically modified organisms (GMOs), have become commonplace on supermarket shelves. GE refers to a set of technologies used to change the genetic makeup of cells to produce novel organisms that exhibit a desired trait, such as pesticide resistance. Research has linked GE crops to environmental problems. Yet public policy has failed to adequately regulate GE technology.

Environmental Impacts of GE Foods

Increases the Use of Toxic Chemicals

GE seeds are directly responsible for the increased use of pesticides and herbicides. GE crops require more than 26 percent more pounds of pesticides per acre than conventional varieties, contributing to contamination of soil and water, and damaging public health.

Encourages Super Weeds

Much like the overuse of antibiotics has created antibiotic-resistant super germs, the pervasive use of glyphosate has created weeds resistant to the herbicide, 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.

Threatens Soil Integrity

As with conventional farming, microbial activity in the soil is affected with repeated use of agrochemicals associated with GE crops. Fertilizers only replace a few of many essential elements that plants need to thrive and over time the microscopic life in the soil disappears. Further, a GE variety of cotton was found to decompose at different rate from conventional cotton, possibly impacting the proper functioning of nutrient recycling and overall soil ecosystem health. More research is required to determine long-term implications.

Increases Greenhouse Gases

GE crops, like Round Up Ready seeds, are designed to be used in conjunction with synthetic herbicides. Large machinery powered by fossil fuels are used to spread these chemicals, which themselves are made of fossil fuels. This dependence on fossil fuels is unsustainable and contributes to the increased concentration of greenhouse gases in our atmosphere.

Take Action Today!

**Support Organic, Diversified,
and Local Agriculture**

Vote with Your Dollars

Consumers can influence corporate decisions by buying GE-free and organic products.

Contact Your Legislators

You have a right to know what is in your food. Tell your federal and state legislators and the FDA to stand up to biotechnology companies like Monsanto and require GE food to be labeled to protect farmland, public health, our natural resources, and the environment.

Write a Letter to the Editor

Encourage decision makers to label GE foods by writing to your newspaper. See our letter-writing guide on our website at <http://policy.oeffa.org/gelte>.

Engage with OEFFA

Stay connected with OEFFA members on GE issues. Contact OEFFA at policy@oeffa.org.

