



About Ben Lilliston

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About IATP

Institute for Agriculture and Trade Policy works locally and globally at the intersection of policy and practice to ensure fair and sustainable food, farm and trade systems. IATP is headquartered in Minneapolis, Minnesota with offices in Washington D.C. and Geneva.

Supremely important: Genetically engineered crops

MINNEAPOLIS, MAY 17, 2010* — Fifteen years after farmers and agribusinesses began planting genetically engineered crops in our nation's fields, we still know very little about their long-term environmental, economic and social consequences.

The Supreme Court is finally getting involved. It recently heard a case involving Monsanto's genetically engineered (GE) alfalfa, which is resistant to the herbicide Roundup. Farmers, including many that use pesticides and herbicides and others that don't, asked that approval for this variety of alfalfa be blocked.

They argued that the Department of Agriculture hasn't completed a required environmental impact statement yet. Farmers fear that GE alfalfa will cross-pollinate with conventional or organic alfalfa that hasn't been engineered. Organic certification prohibits genetically engineered crops entirely. What's more, this kind of contamination could block exports to many other countries, particularly countries within the European Union, who have not approved biotech crops.

The Supreme Court is expected to deliver its decision this summer. However it rules, more questions are being raised about the long-term impact of these crops on the environment.

In April, the National Research Council, which is part of the National Academy of Sciences, published the first research report on how genetically engineered crops affect U.S. farmers. These researchers found there has been a rapid rise in weeds resistant to the herbicide Roundup (so-called superweeds) that could rapidly undercut any environmental or economic benefits of GE crops. Roundup-resistant crops allow farmers to kill weeds with the herbicide without destroying their crop.

To date, at least nine species of weeds in the U.S. have developed resistance to Roundup since genetically engineered crops were introduced. The other primary type of GE seed is designed to produce *Bacillus thuringiensis* (Bt), a bacteria deadly to insect pests. Thus far, two types of insects have developed resistance to Bt. The loss of effectiveness of Roundup and Bt could lead to increased use of more toxic and persistent herbicides.

Greater scrutiny is long overdue. Over 80 percent of corn, soybeans and cotton grown in the U.S. are already coming from genetically engineered seeds. But the economic stakes are equally troubling. Only a few companies control this industry. Monsanto is already under a Justice Department investigation regarding the pricing of its geneti-

cally engineered soybeans. The company has sued more than 100 farmers, alleging patent violations. And as the Supreme Court case reveals, the government and the biotech industry have overlooked concerns of farmers who have chosen not to grow these crops for much of the last 15 years.

The NRC reported that there's little to no scientific literature on how genetically engineered crops affect farmers who choose not to use them, or on their effect on the larger agriculture community. Why, after 15 years, do we have so little scientific data on these crops? A letter sent to the Environmental Protection Agency last year from 26 leading entomologists (scientists who study insects) gives a clue. The entomologists argued that they were prevented from doing independent research on genetically engineered crops because of technology agreements Monsanto and other seed companies have established. The agreements bar research that isn't approved by the companies.

And where are the regulators? When the regulatory framework for genetically engineered crops was first put in place in the early 1990s, regulators in George H.W. Bush's administration—under heavy lobbying from the biotech industry—determined that these crops were no different than any other crop and hence required no special pre-market testing. They simply squeezed genetically engineered crops into the existing regulatory framework.

Since then, Bill Clinton's, George W. Bush's and Barack Obama's administrations have consistently dodged more rigorous regulation of these crops. Congress has stayed out of the issue completely. Lawmakers haven't passed a single bill to strengthen the regulation of these largely untested crops.

It's not surprising that this regulatory and research vacuum on genetically engineered crops has led to a series of court challenges. Even Agriculture Secretary Tom Vilsack has admitted that "our rules and regulations have to be modernized."

But we'll need more than legal rulings to answer 15 years worth of questions about the effects of genetically engineered crops on our nation's fields and farming communities.

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