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A View from Pamela Ronald

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## How Scare Tactics on GMO Foods Hurt Everybody

Vermont got it wrong on GMOs. Its mistake will affect people far beyond its borders.

June 12, 2014

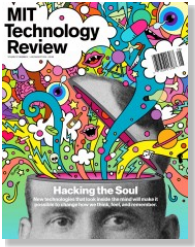
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**I**n early May, Vermont governor Peter Shumlin signed a bill into law that requires a label for any foods produced with genetic engineering. This made Vermont the first U.S. state to require mandatory labeling for foods containing genetically modified organisms, or GMOs. (More than 50 countries already require such labels, and more than a dozen states are considering similar laws.)



**Pamela Ronald**

At this point, most in the anti-GMO movement endorse the view that these crops pose risks to human health and the environment. Though **hundreds of independent research groups** and **many long-term safety studies** support **the conclusion** that genetic engineering is no more risky than other approaches to breeding, they consider all this evidence part of a vast corporate conspiracy.



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So it goes without saying that many food activists greeted the signing of the bill with joy and fanfare. After all, the bill aims to satisfy consumer yearning for assurance that our food is safe to eat and that it was produced in a sustainable manner. But the generic “produced with genetic engineering” label mandated by the Vermont bill won’t provide this information.

If Vermont had honestly assessed genetically engineered crops, the bill would have indicated that there is **not a single credible report** of dangerous health effects from GMOs and that there is no **science-based reason** to single out the resulting foods for mandatory labeling. It would have mentioned that the technology has been used safely in food and medicine for 30 years. It would have stated that farmers’ use of GMO crops has reduced by a factor of 10 the **amount of insecticides** sprayed on corn over the last 15 years, **reduced food costs**, **decreased carbon dioxide emissions**, and **enhanced biological diversity**.

The bill makes a clumsy attempt to define “genetic engineering,” but few who take the trouble to read it will be able to follow the logic. This is not surprising, because everything we eat has been genetically modified in some manner.

The bill is a contradictory hodgepodge of requirements and exemptions. It doesn’t require labeling for cheese made with genetically engineered enzymes, or red grapefruit developed through radiation mutagenesis. It doesn’t require labeling for animals that have been fed GMO crops, or for crops sprayed with carcinogenic compounds. The law doesn’t require crops sprayed with the organic pesticide Bt to be labeled, but crops genetically engineered to produce Bt must be labeled, and so must certain types of hybrids (including triticale, which can be found in most natural-food stores).

So the law, **which virtually everyone concedes will increase food costs**, won’t give consumers access to food that’s more sustainable, more healthful, or less “corporate.”

A failure to consider science when making policy is not specific to one political persuasion or the other. We see the same rejection of scientific consensus among conservatives on climate change. Today, **75 percent of Tea Party Republicans disagree that human activities contribute to climate change**. They do so even though **97 percent of climate scientists** report that human-caused climate change is occurring. In the case of genetic

engineering, the scientific consensus is even stronger—**virtually all plant geneticists agree that the process of genetic engineering is no more risky to human health than conventional approaches to genetic modification.**

Should you care? After all, any individual consumer can either pay heed to a label or ignore it. But political campaigns that reject science can have devastating consequences. The antivaccination movement claimed a link between the measles, mumps, and rubella vaccine and the appearance of autism and bowel disease. Ever since, there have been outbreaks of measles and whooping cough **in certain localities** where parents choose not to vaccinate their children.

Similarly, we already see consumers, fearful that GMOs are unsafe, paying higher prices for products labeled “non-GMO,” which provides an incentive for farmers to return to **older, more toxic, and more expensive management practices.**

GMO scaremongering campaigns have also harmed the poor. Vitamin A deficiency causes blindness in half a million people a year in the developing world. The primary victims are preschool-age children. An early prototype of **Golden Rice**, a genetically engineered rice enriched with B-carotene (the nutrient in carrots that colors them orange), was developed with support from the nonprofit Rockefeller Foundation and was ready for commercialization in 2002. It would have provided the nutrient at a fraction of the cost of current supplementation programs.

But to date, **more than 10 years after it was developed**, the regulatory bodies in India, Bangladesh, and elsewhere have still not approved Golden Rice for release. Further delays have been **caused by activists who destroyed Golden Rice field trials** because they fear that the rice will somehow profit large agrochemical companies. UC Berkeley **agricultural economist David Zilberman** and colleagues **calculated that if development and commercialization of Golden Rice had been allowed in 2002**, by now we would have saved at least one million people from blindness and prevented the death of thousands of children.

So let's label food, but let's do it right. Instead of adding a general label about the process with which a plant variety was developed, let's use labels that provide details about how the crop was grown and what is actually in the food. Let's apply these labels to all foods, so consumers can make comparisons and draw their own conclusions about the risks and benefits of each seed or farming practice. Let's create a **national sustainable agriculture standard** that is science-based and that has as its goal the health and well-being of consumers, farm workers, and the environment.

*Pamela Ronald is coauthor of Tomorrow's Table: Organic Farming, Genetics, and the Future of Food and a professor in the Department of Plant Pathology at the University of California, Davis.*

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