

nature biotechnology

Why silence is not an option

GM products will continue to be marginalized in Europe as long as industry remains silent.

Organic baby spinach: could anything be more wholesome? According to the website of Earthbound Farm, the largest US grower of organic produce, “delicious organic salads, fruits and vegetables are grown with a concern for the things you value most—your family’s health, the air you breathe, the water you drink and your children’s future.” Of course, “organic produce is never genetically engineered or modified ...” and “...encourages an abundance of species living in balanced, harmonious ecosystems.”

One of the species it encourages appears to be the food pathogen *Escherichia coli* O157:H7. As *Nature Biotechnology* went to press *E. coli* O157:H7 from fresh-picked spinach had caused 150 people in 23 US states to get sick, around 75 hospitalizations, including over 20 cases hemolytic uremic syndrome, one confirmed death (a 77-year-old woman) and two deaths that were suspected of being connected with ‘fresh’ spinach. In mid-September, the US Food and Drug Administration (FDA) advised consumers not to eat bagged fresh spinach and urged anyone who had and who felt ill to contact their physician.

A month earlier, the FDA and the US Department of Agriculture (USDA) held a joint press conference to announce that they had been notified by Bayer CropScience that trace amounts of an herbicide-resistant genetically engineered rice, LL Rice 601, had been detected in commercial long-grain rice. Before the resultant media furor died down, Greenpeace and Friends of the Earth followed up with the news that they had found the *Bacillus thuringiensis* toxin gene in rice products imported into Europe from China.

In the meantime, both US agencies concluded that there were no human health, food safety or environmental concerns associated with LL Rice 601. And somewhat later, the Genetically Modified Organisms Panel of the European Food Safety Agency also concurred that genetically modified (GM) rice was not a human health risk. Nothing to see. Nothing happened. Move right along with your life.

Predictably, these events generated a good deal of media buzz. Food scares are always good copy, especially killer salads. But interestingly, for the organic product, none of the press stories suggested that all spinach was bad for consumers, that organic fresh produce *per se* was hazardous, that combinations of ‘organic’ and ‘spinach’ were simply a time-bomb waiting to go off, that greedy growers were seeking to hoodwink the public about the so-called ‘health benefits’ of organic salad or that the spinach varieties bearing the contamination had been bred by exposure to high levels of mutagenic radiation.

The same cannot be said of the coverage of LL Rice 601. Some stories suggested a worldwide ban was needed on imports of GM rice. Others that the food chain was “contaminated.” And others that the biotech industry was “out of control.” As Frank Zappa might have said, it was a ‘rice-unapproved-illegal-contamination-weak-Chinese-regulation-staple-crop-dependency-Greenpeace-center-of-diversity-local-farmers-multinational-forced-accident-environment-rogue-scientist-

unacceptable-monopolistic-monocrop-immediate-inquiry kind-of-a-thang’.

Many of the myths about the hazards of GM food were repackaged from stories from previous years when unapproved varieties of transgenic corn (Aventis’ Starlink and Syngenta’s Bt10) ended up in the human food chain. Few of the stories presented a balanced picture.

One reason why this is the case is that the research community has all but disengaged itself from the debate. It seems that those who know the most have the least to say. And it’s not hard to understand why. The important and true things that need to be said have been said many times before, and ignored many times before. The truth hasn’t changed. So why repeat yourself?

But this supine stance risks marginalizing and misrepresenting biotech and its products in the public’s mind—a phenomenon no better illustrated than by the UK’s Huntingdon Life Sciences (HLS). At the beginning of the decade, HLS’ employees, shareholders, bankers and suppliers were the target of a vicious campaign of physical and economic intimidation by extreme animal rights campaigners. The response to the intimidation was silence. Many erstwhile HLS associates receded into the background or, rat-like, padded to quieter shores.

But that was never going to be the end of the story. Encouraged by apparent victories, the protestors then switched their attention to plans to build new research facilities at the Universities of London, Cambridge and Oxford, which in turn were hastily scrapped or shelved. It thus became apparent that a completely legal, highly ethical and statutorily compulsory trade was fast becoming impossible to practice in the UK.

In 2003, the UK biotech industry finally found a voice. Its lobby group, the BioIndustry Association, together with its pharma equivalent, the Association of the British Pharmaceutical Industry, lobbied Tony Blair’s government. They repeatedly and insistently pointed out that animal testing was highly regulated and compulsory for pharmaceutical and many other products destined for human use. They clearly outlined the necessary actions that the government should take, and two years later obtained changes to the law that made it illegal to stop persons going about lawful business or to harass them at home.

This may sound draconian, but the reality, of course, is that criminal measures are hardly ever invoked. Once government has clarified its position and outlined the consequences of misdeeds, the middle ground is reclaimed. As a result, illegal protesters, rather than the industry, have been marginalized and public support for animal rights extremism is dwindling.

In public forums and in politics, the debate is not about convincing your opponents of the error of their ways. It is about establishing your arguments and your position in the center ground. Silence, nonengagement and navel gazing will not reestablish the facts about GM products in the public’s consciousness. There is a basic truth that bears repetition: and that is that basic truths bear repetition. 