

# Genetically engineered organic food?

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Some 4000-odd letter writers have lambasted the US Department of Agriculture's (USDA; Washington, DC) proposed national standards for organic foods. The mantra of the organic farmers, granola eaters, and others who responded to the USDA's proposed standards amounts to a thunderous rejection of the very idea that genetically engineered products might by any stretch be considered organic. (Their comments are available on the Internet at [www.ams.usda.gov/nop](http://www.ams.usda.gov/nop)).

In one blistering comment, for example, Scott Hartley of the Natural Law Society declared that "genetic engineering. . . has as much place in any standard defining 'organic' as Adolph Hitler at a bar mitzvah." Yowled another, Jodi Guerin of the Coal Creek Coffee Co. in Wyoming, "You need to understand that ORGANIC IS MORE THAN JUST A WORD, IT'S A WAY OF LIFE."

Indeed, the din had grown so loud by early February that Agriculture Secretary Dan Glickman felt compelled to extend the comment period for 45 days, apparently in search of some rational balance. "USDA takes the public's role in rulemaking very seriously," declared Glickman. "We want everyone to participate fully. . . Our goal is to develop a final rule that the organic community and the public can embrace."

If that is so, the agricultural biotechnology industry, which now encompasses ambitious startups as well as megacorporations like Monsanto and Dow Chemical, might well start listening more closely to the unhappy multitudes. The disconnect between biotechnology and the organic movement is not scientific. There is little question that, as industry officials have noted, recombinant DNA technologies could make a real contribution to organic farming—despite rampant, often willful, distortions and paranoia from the opposition. But there is a cultural divide that even huge expenditures of time, good will, and hard cash by agbiotechnology interests is not likely to bridge anytime soon.

Indeed, there is a good case to be made against any campaign to include genetically engineered organisms and technologies in national organic food standards. For starters, as a new technology, genetic engineering has only the slightest political constituency—namely, an agbiotechnology industry that has important battles to fight on other fronts, from patents to harmonization of trade to technical problems, such as insect and herbicide resistance.

What's more, the US Food and Drug Administration (Rockville, MD) has effectively blurred USDA's attempt at a product-oriented approach to food safety standards by creating doubt about scientific process, thus providing fodder for critics who argue that genetic engineering is unnatural. Even the enabling legislation, the 1990 Organic Foods Production Act, neglects biotechnology altogether, leaving it to a Senate report accompanying the bill to note that ". . . as time goes on, various scientific breakthroughs, including biotechnology techniques, will require scrutiny for their application to organic production."

Since then, as the text of the proposed USDA organic standards acknowledges, genetically engineered products have certainly assumed a more significant role in agricultural production. What's more, US policy calls for the regulation of recombinant technologies "based on risk, not on how they are produced." Even so, the National Organic Standards Board recommended last year to USDA rulemakers that genetically engineered organisms (GEOs) should not be allowed in organic farming or handling of organic products.

Nor are there compelling economic arguments to biotechnology companies to force their way into the organic food market. Yes, it is a growing, if still tiny, \$3.5 billion, 1% share of the annual US food market. Still, the organic food industry in the US serves a well-defined niche, whose growth has actually been helped along by the introduction of biotechnology products like bovine somatotropin, the genetically engineered, milk-producing hormone that spurred dairy companies to come out with new lines of *organic* milk, butter, and even chocolate products. That may be a boondoggle, but that's the way the marketplace works.

There's no question that biotechnology, in this sense, has helped stimulate the organic food market. But it can in no real sense be a player. It can best serve the cause, ironically enough, by tending to the huge stretches of the domestic agriculture market that are open to cheaper, more efficient biological technologies. The same is true on the non-US side, where the US organic food industry is poised for significant growth—and so too is the larger market for major crop seeds and biological pesticides and herbicides.

In Europe, for example, the market for organic products reportedly has been growing at a healthy 20% clip. That will only bene-

fit US organic farmers and food processors if US regulatory standards are in basic harmony with those of the European Union and individual countries. The benchmark is Austria, whose organic food market is sizzling—and which also has the most stringent organic standards. If US organic standards raise doubts and suspicions in markets like Austria, Germany, France, Britain, and Japan, they will effectively kill the goose about to lay the golden egg. That means that, for now at least, despite its promise, genetic engineering—not to mention the other bugaboos of the organic set, food irradiation and biosludge fertilizer—has got to go.

However unnatural in the scramble for market share—especially when the weight of good science would seem to mitigate in favor of agbiotechnology—it is a time for industry restraint and statesmanship. Biotechnology should let the organic standards go. The most difficult truth to grasp about public attitudes toward genetic engineering concerns perception. And the perception, at least when it comes to recombinant DNA technology and organic food, is a complicated alchemy in which otherwise intelligent people are demanding to see proof of a negative: that genetic engineering is not dangerous.

Here's a familiar variation on the theme, courtesy of businessman Scott Silverston of New York in his Web comments on the proposed USDA standards. Silverston begins by admitting that "while no one has proven GEOs hazardous, the lack of research data, minimal knowledge about their effects on human digestion, assimilation and biological function would certainly make them questionable." Then comes the killer. "In fact," he writes, "their effects may be so subtle that they may not be readily noticeable for 10, 20, or 30 years—much like the now well-documented effects of long-term exposure to low-level radioactive contamination and the carcinogenic effects of exposure to asbestos or cigarette smoking." He goes on to propose that consumers of organically grown and processed food become a national control group for the general population "who will be exposed to GEOs." That way, he argues, we will be able to "analyze pathological deficiencies (sic) between the two groups. . . ."

This is a very rational-sounding perspective. And no voice as self-interested as the biotechnology industry's is going to convince Silverston et al. otherwise. The organic food standards is a losing battle. Let it go. ///