

AGRICULTURAL BIOTECHNOLOGY

Nasty taste from G-8 GM food policy

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An obscure action at the June meeting of the G-8 countries in Bonn may have dire consequences for foods derived from plants genetically improved with the new biotechnology, such as disease-resistant papayas and rot-resistant tomatoes. Reflecting the continuing disagreement between the US and its trading partners over how these products deserve to be regulated, according to the official communique the G-8 tasked the Paris-based Organization for Economic Cooperation and Development (OECD) to “undertake a study of the implications of biotechnology” as it pertains to food safety.

Among the several reasons why OECD is a poor choice to study these issues, one is that the OECD has already been there, done that—during the 1980s and early 1990s, when biotechnology was under the aegis of the organization’s scientific component, the Committee for Scientific and Technological Policy. Now, responsibility for biotechnology at the OECD lies with the environment group, well known for its extreme environmentalism and antitechnology views. The OECD’s now-defunct Group of National Experts on Safety in Biotechnology (on which I served as a US representative) concluded in a landmark 1986 analysis, “Recombinant DNA Safety Considerations” (Paris; OECD, 1986) that:

Safety concerns focus on whether environmental and agricultural applications of organisms modified by rDNA techniques pose an “incremental” risk. While rDNA techniques may result in the production of organisms expressing a combination of traits that are not observed in nature, genetic changes from rDNA techniques will often have inherently greater predictability compared to traditional techniques, because of the greater precision that rDNA affords;

...It is expected that any risks associated with applications of rDNA organisms may be assessed in generally the same way as those associated with non-[gene-spliced] organisms.

The OECD’s national experts panel subsequently took up food safety specifically. In a 1993 study, “Safety Evaluation of Foods Derived by Modern Biotechnology” (Paris;

OECD, 1993), they concluded that modern biotechnology broadens the scope of the genetic changes that can be made in food organisms, and broadens the scope of possible sources of foods. This does not inherently lead to foods that are less safe than those developed by conventional techniques. Therefore, evaluation of foods and food components obtained from organisms developed by the application of the newer techniques does not necessitate a fundamental change in established principles, nor does it require a different standard of safety.

What could be more clear than the OECD’s conclusions, which may even be said to be conservative, in light of other analyses by distinguished scientific groups around the world? For example, the US National Research Council went further in their landmark 1989 analysis, “Field Testing Genetically Modified Organisms: Framework for Decisions”:

Recombinant DNA methodology makes it possible to introduce pieces of DNA, consisting of either single or multiple genes, that can be defined in function and even in nucleotide sequence. With classical techniques of gene transfer, a variable number of genes can be transferred, the number depending on the mechanism of transfer; but predicting the precise number or the traits that have been transferred is difficult, and we cannot always predict the phenotypic expression that will result. With organisms modified by molecular methods, we are in a better, if not perfect, position to predict the phenotypic expression.

And there is more than the speculations of experts. Notwithstanding opposition from anti-biotech activists, primarily in Europe, during the past 15 years thousands of food products from gene-spliced organisms have been widely marketed and consumed routinely and safely. More than three-quarters of the cheese produced in the US is made from a gene-spliced version of an enzyme called chymosin, for example, and most of the tomato puree sold in the UK during the past few years has been derived from gene-spliced tomatoes.

Why the need, then, for OECD to reconsider these issues? In the absence of any new data that raise new uncertainties or issues surrounding the application of molecular techniques to produce food, the likeliest explanation is that the G-8 are simply shopping for the answer they want, not unlike a lawyer hiring an expert who will offer an opinion that strains credulity but is favorable to his client.

The prospect of a flawed analysis of food biotechnology by a biased faction at OECD is

particularly worrisome in view of a June 21 announcement by US Trade Representative Charlene Barshefsky of new US–EU coordination on trade issues, including those pertaining to biotechnology. This will involve a comparison of each side’s procedures, requirements, and the underlying reasons for their decisions, Barshefsky said.

Barshefsky’s announcement reinforces an earlier statement by her special trade negotiator, Peter Sher, that the US would, in effect, capitulate to European policies. After noting agricultural biotechnology’s potential, he declared that “it doesn’t serve any of our interests if our consumers lose confidence in the food supply. So we need to ensure that the [regulatory policy] in place, whether it be in Europe or the United States or frankly, in other countries, is one that instills confidence in consumers, that we are taking every precaution.” In other words, even nonexistent risks should be stringently regulated, merely because some consumers think they might exist. Scher went on to make a crucial concession to the EU, disclosing that the US is “willing to comply with the most stringent scientific review of [gene-spliced] products, as long as the process is clear.”

The US has given ground on another related issue, according to Agence France-Presse (AFP; July 5, 1999), which reported that the US has “softened its position” on the ill-conceived biosafety protocol mandated by the Convention on Biological Diversity.

So much for the hard line on free trade and sound science.

A likely scenario is that a new OECD analysis will conclude that foods made with the techniques of new biotechnology are sufficiently new and untried that they need some sort of case-by-case government review—a view consistent with EU policy but at odds with official US policy and the long-standing and widely held consensus of the scientific community worldwide.

Confronted by such an OECD analysis, on the basis of past performance, Ambassador Sher’s concessions, and the AFP report, it is likely that the US would, quite literally, give away the farm.

There has already been ample analysis of the scientific issues surrounding biotechnology-derived foods, and there is an abundance of data documenting their safety and consumer acceptance. What is needed, but sorely lacking, is the political will to insist on scientifically defensible policies that are genuinely in the public interest. ///

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