What the European Union Wants the United States To Understand About European Biotech Imports

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Globalization, while offering the advantages of increasing trade, prosperity, and choice, has created problems and new uncertainties. Genetically modified organisms (GMOs) in agriculture have been available for about ten years. Their commercial use has been expanding rapidly in the United States, creeping quietly and stealthily into the consumer's food. According to recent figures, 75% of food on the shelves contains at least one genetically engineered ingredient. Since 1998, difficulties in placing GM products on the market in the European Union (EU) have given rise to trade tensions with the United States.

THE EU CONSUMER, FOOD SAFETY, AND LABELING

Safety, the most important food issue for European consumers, is currently the number-one political issue in Europe—a large majority is worried about transgenic food. More than 60% of the 1997 Eurobarometer[1] respondents were concerned about risks associated with GM food, compared with 40% in the case of the medical applications of biotechnology. This result is consistent with those of private polling institutes. The 2000 Eurobarometer helped in assessing reasons for consumer concerns over GM food. Items gaining the highest degree of support were: "even if GM food has advantages, it is against nature"; "if something went wrong, it would be a global disaster"; "GM food is simply not necessary."

Seventy-four percent of EU consumers favored clear labeling of GM food (Eurobarometer, 1997). Fifty-three percent of respondents said that they would pay more for non-GM food whereas 36% would not (Eurobarometer, 2000).

[1]European Commission public-opinion surveys, http://europa.eu.int/comm/dg10/epo/.

The Psychology of the EU Consumer

One can argue at length about the rationality or irrationality of the EU consumer's attitude towards GMOs. Some even call it "neurotic." This attitude is due largely to a series of factors that are fundamental to understanding the European situation:

- There is a food surplus, thus consumers have choice.
- Food involves far more than mere sustenance. Generally speaking, the European has a relationship with food that is emotional and even a fundamental part of the local culture. Every town has its regional products, and sitting together for hours eating good food is part of the pleasures of life.
- Americans are more prone to adopt modern technology, whereas Europeans are more conservative.
- The blood scandal (blood tainted with the AIDS virus), which occurred in the EU at the end of the 1980s, as well as later food scares related to bovine spongiform encephalopathy (BSE or mad cow disease, since 1995, which is still a terminal disease), dioxin (1999), and currently hoof and mouth disease (HMD). Beef is no longer on the menu of most schools in Europe. Politicians said there was no danger. British Minister of Agriculture, Mr. John Gummer, gave a hamburger to his 5-year-old daughter in front of television cameras—but he and others were wrong. Of course, their risk assessments were based on information provided by scientists (*e.g.* BSE could not jump the species barrier, sheep to cattle to humans).

  In the case of BSE (approximately ninety already dead), uncertainty about the incubation period makes extrapolation by British scientists distressing: they project between 150,000 and 200,000 deaths. Every year 50,000 Europeans are killed on the roads and 500,000 die from smoking-related diseases. The difference in attitude seems to lie in the risk factor. People are not averse to taking risks, but do not want them to be forced on them.

  The BSE and dioxin crises have cost the jobs of two Belgian and two German government ministers, and has seen the arrival of a Green minister at the head of the new Ministry for Agriculture and Consumer Affairs in Germany, which in some ways is a revolution.
- These scares have been greatly amplified by environmental activists and by the tabloid press, which demonize plant biotechnology, particularly in the United Kingdom and in Austria, where resistance to GMOs is greatest. The tabloid press has invented the destructive expression "Frankenstein food, no trust," *i.e.* no trust in scientists and no trust in politicians. No longer is "science-based" necessarily a quality label in Europe. Apart from the blood scandal and BSE, some consumers remember the precedents of DDT and thalidomide.

- Faced with growing popular pressure to phase out GMOs, many retailers have adopted a restrictive stance on GM food. The first to respond in the United Kingdom were supermarkets, and the movement spread to continental Europe in 1999.

  The retailing industry is the linchpin in the food market due to its proximity to the consumer. Retailers are in a key market position that allows them to amplify consumer preferences and relay them to the food industry. Retailers are not anti-GM in principle—they are responding to consumer demands. Already, McDonald's in Europe, and British supermarkets such as ASDA and Tesco (42% market share), have decided that their lines of meat or poultry will come from animals raised on GM-free feed. Furthermore, companies such as Kraft Foods, Nestlé, Kellogg, and PepsiCo have promised not to use GM grain or corn in their production plants.

  This restrictive approach to GM food has had cascading effects on the upstream side of the food chain, in domestic as well as in foreign markets. Food processors and grain companies have been hard-pressed to segregate GM from non-GM products.
- The disastrous and, for some, arrogant PR campaign of biotech companies (supply-driven, totally ignoring the final consumer, considered by some as forcing down their throats food they do not want to eat) was definitely counter-productive.

The heart of the matter: to the EU consumer, GM food is neither cheaper nor does it taste or ripen better, nor are their quasi-pharmaceutical benefits (prevention of decaying teeth, weight reduction, *etc*.). With no added value and plenty of other choice, why take the risk? “Do we really know the potential long-term risks and health hazards?” asks the EU consumer, although no one has died from eating GM foods.

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World Trade Organization

The risk is real that the American GMO industry, or at least some of its representatives, will ask the United States administration to take the case of the *de facto* moratorium on approving GMOs in Europe to the WTO.

It would be a bad idea for the United States to go to the WTO and create a new EU-US dispute. First of all, I am not sure that the United States would win [technical barriers to trade (TBT) and sanitary and phytosanitary (SPS) texts are not clear on this], which would undermine further the confidence that American citizens and Congress have in the WTO. The same would, however, be true were the United States to win; since food is the number-one political issue in Europe, I do not see how policy-makers there could comply with such a WTO ruling.

Resuming the Approval Procedure

Under pressure from public opinion, five EU Member States blocked the GMO approval procedure in October 1998. At that time, eighteen GMOs had been approved and fourteen were pending. In July 2000, however, the Commission decided to break the deadlock and proposed to Member States a strategy to regain public trust in the procedure for approval of GMOs. The objective was and is to resume the authorization process.

The idea was to put in place a series of new regulatory building blocks replacing the GM legislation of 1990, in order to address public concerns and to give clear responses to political and legal concerns, which favor consumer safety and choice. The first of these new blocks is the revised directive 90/220 on deliberate release of GMOs into the environment, approved in February 2001 by the European Parliament and the Council of Ministers, and now called Directive 2001/18. Once the new Directive was adopted, the European Commission believed that the GMO approval procedure could be resumed.

The new Directive covers food and feed, and confirms premarketing-authorization and risk-assessment procedures for all GMOs. It strengthens previous Directives and foresees an exception for pharmaceutical products. The new Directive not only applies to the fifteen member countries of the EU, but also to the twelve candidate countries, which have to adopt EU legislation and are already in the process of doing so—in total, twenty-seven countries with the same GM legislation, introducing:

- mandatory traceability and labeling at all stages of movement to market,
- mandatory monitoring requirements after placing on the market,
- mandatory consultation with the public (as with the United States *Federal Register*)
- mandatory consultation of the EU Scientific Committee,
- application of the precautionary principle when implementing the Directive, and
- a time-limited consent of a maximum ten years.

The country of origin of the food and whether it has been imported into the EU has no bearing on the enforcement of the legislation, in particular as far as traceability and labeling requirements are concerned. These measures apply equally to American and EU biotech products.

While adopting Directive 2001/18, six Member States (France, Italy, Austria, Greece, Denmark, and Luxembourg) declared that they would accept the relaunch of the GMO approval procedure only on condition that the Commission would come forward with more specific proposals regarding traceability and labeling. The Commission is now in the process of preparing regulations on traceability and on labeling of food and feed. The new proposals are expected to extend the existing labeling requirements to nearly all foods derived from biotechnology and to extend labeling requirements to animal feed. These two draft regulations are expected to be adopted by the European Commission (Executive) on June 6, 2001, and then be sent to the Council of Ministers and the European Parliament for adoption in order to become effective EU law.

Traceability concerns the whole food and feed chain. The idea is to have a unique identification through a code for the life of the GMO and to be able to recall the products in case of problems (*cf.* StarLink™).

Labeling is process-based (in the United States it is content-based). In other words, even if no trace of DNA or protein can be found in a GMO-derived product, it must still be labeled, the basic concept being consumer choice. It should be noted that, in Europe, labeling is not meant to be, and has never been, a warning.

Regarding traceability and labeling, Commissioner David Byrne wanted a system that is workable also for the United States, which is why the draft regulation on food and feed foresees a 1% threshold for the adventitious presence of American-approved GMs that are not yet EU-approved.

Furthermore, in order to speed up the approval process, the Commission intends to follow a special procedure, according to which the main provisions of the two draft regulations could become the conditions for approval of individual approval requests, in order to allow the approval process to be resumed as soon as possible.

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We are conscious that people, both *pro* and *con*, may not find our solution fully acceptable. But both sides should recognize that it is an honest exercise balance between the interests of the consumer and of industry. If companies want to sell their products, then they must comply. If consumer trust is to be gained, they must be assured that there is strong regulation to meet their concerns.

A Changing World and Perhaps Even a Copernican Revolution

A Green minister heads Agriculture in Germany and Greens are members of the governmental coalitions in Germany, France, Belgium and, until the spring of 2000, in Italy. Agriculture is no longer regarded in a positive light by many European governments. The days when European food policy was determined by the need to increase output and efficiency in order to achieve food security are probably over. The new motto is *Food Safety and Food Quality.*

Farmers have become less important than consumers. But will these consumers pay more for higher quality products? How much more? Do modern production methods militate against tasty and wholesome food produce? These questions are simple and straightforward, but I expect that the answers will be complex, particularly given the complexity of the modern food chain and the higher expectations of the modern consumer. All this may, in time, have policy implications for the European Common Agricultural Policy.

Many things can happen if consumer confidence is not restored in Europe, or if a food scare (*e.g.* BSE or HMD) were to erupt in the United States. In the field of food safety, trust in regulators can be lost overnight.

Where the EU was isolated with its GM legislation a year ago, today eighteen of the main trading partners of the United States have adopted GM legislation or are in the process of doing so.

Segregation

If the American farmers want to maintain their export shares to Europe and other parts of the world, they should look carefully for lessons from the StarLink™ problem. In the long run, consumers around the world will decide what premiums they will pay for non-biotech products. On the other hand, some exporting countries are likely to produce and export both types of crops (GM and non-GM) and to develop marketing systems that offer consumers products that are differentiated according to their biotech status. But the problem will always be the risk of commingling GM-free with GM crops, or GM-approved crops with GM-non-approved crops (especially if there is no, or a very low, threshold). That will mean that efficient segregation will have to be in place, with concomitant investment and costs.

"Give time to time"

As for the irrational attitude of the EU consumers, I think one should apply the French saying, *il faut donner du temps au temps*, "one should give time to time," and try to educate the consumer in this field in order to gradually restore confidence.

The biotech industry should also become much more proactive. It should repudiate misinformation. It should educate the consumer—without television campaigns with nice music, but with facts—stressing the tremendous environmental advantages of GM crops. And the consumer should no longer be scared to death by activist organizations.

Second, third generation biotechs

There will be no real incentive for consumers to buy bio-engineered food unless (a) it is cheaper: until now, the benefit of a better yield from GM crops has not been passed on to the retailer or consumer (perhaps the premium for GM-free commodities will be such that consumers will start buying cheaper GM food); or (b) unless a second or third generation of GMOs brings real added value to the consumer such as medical and nutritional benefits. If this happens, I am convinced that genetically engineered food will break through during the next decade. At that point, I believe that these companies will want their GM products to be labeled.

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Q: Europeans want perfect traceability of genetically engineered products. Is there any interest in having traceability or labeling regarding pesticide use, particularly in view of concerns over dioxin and DDT?

A: No. We are thinking of traceability in a lot of fields, we are thinking of labeling GM-free products according to the White Paper published in January of last year. We will also have labeling of other products—in principle all products will be labeled. But, for the moment, we are dealing mainly with GM foods.

Q: Has anybody, either in the European Government or at a university, made a cost/benefit analysis of the current or future laws on GM foods, looking at externalities and so on?

A: Not to my knowledge. I wonder if such has been done in the United States—that would be interesting.

Q: A two-part question: you mentioned the European consumer's desire for choice in relation to products from GM crops. Does the same apply to meat products? Can the European consumer try American pork or beef—even if they are labeled as such—bearing in mind that growth promotants are not used for pork in this country. Also: you mentioned Europeans' disbelief in scientists. Yet, I traveled recently in Europe and found pervasive belief in the science of global warming. Would you comment on these inconsistencies?

A: You are right. It is amazing that there is no belief in science as far as food is concerned, but there is trust in the science that indicates climate change—although President Bush doesn't believe it. The contradiction may result from the fact that food is an emotional issue. As far as meat is concerned, we are not against importation of American beef provided it is hormone-free. A greater beef quota has been proposed, as compensation to the United States, but at this time there is a glut of beef in Europe. There is overproduction of pork in Europe also; and it is coming in by the ton from Poland.

Q: What about some of the other manipulations that are used in crop genetics? Recently in the press, attention has been paid to irradiation, for example.

A: We intend to label it. We intend to label everything. Perhaps we are overdoing it, but the lesson from BSE is such that we see no other political solution.

Q: What are your thoughts on the future of non-food products that are genetically modified?

A: There is a promising future for such non-food products. Cotton is now the most successful of the GM crops in the United States, at 66% on an area basis. In attending several biotech conferences in the United States recently, I have been amazed to learn what is in store in the field of non-food GM products. This information would serve to demonstrate to Europeans that biotech has far-reaching advantages, yet it has had very little coverage in the media even here in the United States.

Q: What is your prognosis on European attitude to the development and use of GMOs in countries in which food is not in excess?

A: First of all, Europeans are much more cynical. There is no such thing as "compassionate conservatism" there, for example. When biotech companies claim that they will feed the world, Europeans don't buy it and see it as a strategy for expanding business opportunities. This issue is much more complicated than it looks at first sight. I don't see subsistence farmers in Africa or Asia being able to buy seeds every year. Will biotech companies sell seeds at prices that are affordable to developing countries? I don't think so. As an aside, which has nothing to do with your question: sometimes it seems that biotech companies want it both ways. In the United States when a GM product is considered similar, it doesn't have to be labeled, in which case, why is the difference patentable?

Q: You brought up what I see as one of the great disconnects in this. You did a wonderful job in covering the sensitivities of the Europeans, their high level of awareness of the issues, and aspects that we might all agree on regarding mishandling by the biotechnology industry. The disconnect lies in the fact that most of these biotech companies are owned by Europeans.

A: Many European biotech companies are moving operations to the United States. In the Research Triangle of North Carolina, for example, most of the biotech companies are European because they fear for their future in Europe. I am in the process of discussing with companies here in the United States what thresholds, *etc*., they would like to see, and my counterparts in Europe are having similar discussions with the same companies. They don't provide the same answers, which makes our job more difficult.

Q: Is there any European vehicle that provides an open forum where interested stakeholders can come together in a non-threatening environment for dialogue? They may disagree on issues, but they may build trust—it sounds like trust is lacking.

A: Some months ago, a conference was organized by the European Parliament, and all of the stakeholders were in attendance, including Green Peace and other advocates. Everybody explained their positions, but there was no real dialogue.

Q: I've always thought that you need to have a vehicle to begin to have dialogue. Regulation helps build trust, but without dialogue and the ability to relate to real people, it is difficult to solve differences.

A: Yes, our regulation is only part of the solution. I feel strongly that biotech companies should make a concerted effort. I participated in a brain-storming session at a large company here in the United States, and it was striking that the biotech division was in dispute with the chemical division because the latter was still producing pesticides. This underlines how the environmental benefits of biotech are not being explained to consumers.

Q: I've been wondering why it wouldn't be consistent to extend the same traceability requirements to crops produced by conventional breeding in which—particularly if you use exotic germplasm—you actually introduce many more new proteins, most of them unknown, that might be allergens for example. Alternatively radiation or chemical mutagenesis might have been used. If these manipulations result in resistance to pests, for example, that phenotype can be translated to wild relatives. Therefore, I am having trouble seeing why you would place extreme traceability and other requirements on genetically modified plants with which you have a good understanding of the characteristics of the limited numbers of new proteins that are produced.

A: In Brussels, a lot of thought is being devoted to the legislative bricks that I mentioned. One of the ideas is to require traceability for all new products.

Q: Did you say that traceability will be required also for animal feed?

A: Yes. That has been decided.

Q: So, will you start testing corn gluten meal?

A: As of next year we'll have a European Food Authority, but it won't have the powers of the FDA to do testing for instance. Testing will remain with the member states. The legislation being drafted will have the advantage of applying to the whole of the European Union, otherwise we'd probably have fifteen different legislations.

Q: Corn gluten meal from the United States will be GM. What will happen to it? Will people buy it?

A: I'm not a buyer. I don't know. It will be labeled, but we really don't know what is going to happen. Some extremists in my administrations want us, for instance, to label eggs from chickens given GM feed.