Agricultural Biotechnology and Trade: The Unresolved Issues

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To observers contemplating the failure of the Cancun ministerial meeting of the World Trade Organization (WTO) in September 2003, the United States and the European Union appeared to stand on the same side of the disagreement that stalled efforts to advance the Doha Round of multilateral trade liberalization. Poor countries wanted real reduction in the widespread agricultural subsidies that depress world prices in commodities that are critical to development. The United States and the European Union, on the other hand, insisted on a more comprehensive approach to liberalization, including pushing the WTO into new areas (such as rationalization of inefficient and corrupt custom procedures). Neither side could agree with the other. But, whereas at Cancun rich countries found a common stance vis-à-vis the demands of developing countries, the United States and the European Union remain on a collision course when it comes to agricultural trade because of the enduring and growing problems associated with the regulation of genetically modified (GM) products.

The Makings of a Trade Dispute

The advent of biotechnology in agriculture has, to date, displayed a perplexing, dual nature. On the one hand, we have witnessed a remarkably speedy adoption of some extremely innovative products, such as herbicide-resistant soybeans and cotton, and insect-resistant corn and cotton. In the United States, for example, the share of transgenic crops in the latest harvest amounts to 81 percent for soybeans, 73 percent for cotton, and 40 percent for corn. On the other hand, although GM crops

currently account for 145 million acres worldwide, large-scale adoption essentially has been limited to three countries: the United States, Argentina, and Canada. Adoption in other countries has been prevented by encroaching regulation that directly affects the diffusion of biotechnology products at various market stages.

The E.U. experience is emblematic in this setting. The earlier regulation of these new crops was similar to that of the United States, and 14 products were approved prior to 1998. But public opposition and consumer concerns drove the European Union to institute a de facto moratorium on new approvals pending an extensive reexamination of the regulatory framework for GM products. No new GM varieties have been approved since October 1998, and some E.U. countries (such as Austria, Luxembourg, and Italy) have taken steps to unilaterally ban, within their own national borders, products already approved in the European Union. Meanwhile, trade of affected commodities has shown early signs of problems to come. Access to the E.U. soybean market was not immediately threatened, because Roundup Ready soybeans (practically the only transgenic bean variety being grown) had gained an earlier E.U. approval. But U.S. shipments of corn to the European Union have essentially ended because of the difficulty in ensuring the required purity. (There are a few GM varieties of corn that are grown in the United States that are not yet approved in the European Union.) This untenable situation has led to two recent, and distinct, developments of interest: the filing by the United States of a WTO complaint against the European Union in May 2003, and the completion by the European Union, in July 2003, of a new, complex, and far-reaching regulatory framework for GM products, centered on the requirements of labeling and traceability.

The WTO Challenge

In the WTO action, the United States (supported by Canada and Argentina) explicitly singled out the E.U. failure to approve new GM varieties in the last five years, claiming that this moratorium amounted to a WTO-illegal barrier to trade. The United States emphasized that the European Union's persistent resistance to move forward on GM products could not be justified by risk considerations. (For example, the European Union's own scientific assessment has ruled out health risk for the products considered thus far.) Technically, the action initiated was a "request for consultation," the first step in a WTO challenge. Not surprisingly, consultation has not led to a resolution of the issue, and in August 2003 the United States escalated the confrontation by moving to the next step, the request for a WTO panel to adjudicate the dispute. The panel's ruling is expected within the next 12 months, but considering that an appeal of the ruling is possible, and that countries have a reasonable period of time to comply with the final ruling, no resolution is expected for some time. In fact, it is

possible that this particular WTO action might be rendered moot by recent developments on the E.U. regulation of GM products.

The New E.U. Regulation of GM Products: Labeling and Traceability

In July 2003, after years of gestation in the elaborate E.U. institutional structure, a comprehensive framework for GM products was finally adopted in the form of two new E.U. regulations (one regulating GM food and feed, the other dealing with traceability and labeling of GM organisms). Whereas some GM labeling requirements already existed in the European Union, the new rules are considerably stricter. All foods produced from GM ingredients must now be labeled, regardless of whether or not the final products contain DNA or proteins of GM origin. Such labels will have to state: "This product contains genetically modified organisms," or "This product has been produced from genetically modified [name of organism]." Furthermore, the new rules introduce (for the first time) labeling requirements for GM feed (for example, soybean meal and corn gluten feed produced from GM varieties will have to be labeled as such). To avoid carrying a GM label, a high level of purity is required: the tolerance level for the presence of "authorized" GM products is set at 0.9 percent. Some leeway is introduced for the accidental presence of other GM material, in the form of a 0.5 percent threshold level for GM events that are not yet approved by the European Union but for which the E.U. scientific assessment has been favorable (otherwise, the implicit requirement of zero tolerance applies). This mandatory labeling is supplemented by traceability requirements, meant to facilitate monitoring of unintended environmental effects and to help enforce accurate labeling. Operators at all marketing stages using or handling GM products are required to transmit information about the GM nature of the product and to retain these records for five years, so that a system is in place to identify who supplies GM products to whom, from "farm to fork."

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The E.U. regulation also outlines a new, more centralized authorization procedure to govern future approvals of GM crops and products. The procedure features a scientific risk assessment prior to approval, carried out by the European Food Safety Authority. Authorizations are envisioned for a limited (but renewable) period of 10 years. Current E.U.-approved GM products remain eligible, but the limited 10-year approval period applies to them as well (retroactively, starting with the date of their first marketing). GM products that could be used as both food and feed should be approved for both or neither. The previous simplified procedure for approving GM products for marketing based on the notion of "substantial equivalence" is to be abandoned. These new regulations are expected to come into force sometime in 2004.

Consumers and Producers Will Share in the Costs of Regulation

On the positive side, the new E.U. regulations on GM products have the potential to unlock the five-year moratorium on new approvals, a key step toward normalizing the stance of GM products in the European Union. Restarting approvals of GM products in the European Union may also render the outlook for the current WTO action against the European Union somewhat moot, given the focus of that challenge on the moratorium. But the new and stricter requirements of labeling and traceability are bound to have a number of serious market effects. Operators in the food industry are concerned that the new requirements will prove costly and ultimately unworkable. Labeling and traceability are likely to add considerable administrative and bureaucratic burden to transactions involving agricultural products and food, the end result of which is predicted to be more costly food to E.U. consumers, and lower prices for producers in exporting countries. Perhaps the biggest unknown is how E.U. consumers will react to food labeled as containing GM products. If, as some fear, E.U. consumers were to avoid buying food and feed labeled as GM, a substantial rebalancing of the supply lines of the E.U. food industry may result, with possible deep repercussions on world markets. In such a scenario, the United States may stand to lose a sizeable portion of its current $6 billion in agricultural and food exports to the European Union.

Whether or not E.U. consumers will choose to avoid GM food remains to be seen, however. Whereas polls and studies have documented that a majority of E.U. consumers oppose GM food, it is not known just how much they are willing to pay for GM-free food. And pay they must, because avoiding the GM label will be costly. Some have naively assumed that, by requiring GM labeling, the burden of market segregation could be shifted onto the suppliers of the new GM products. This is not so, however. It is the suppliers of the traditional, GM-free food (the perceived "superior" good) that will have to undertake the costly segregation activities required to avoid commingling of

GM and non-GM products at various production, marketing, processing, and distribution points. This will require moving away from the traditional (efficient and cheap) commodity-based trading system and moving toward a more expensive handling process characterized by identity preservation. The E.U. threshold level of 0.9 percent may indeed prove rather strict and difficult to achieve. U.S. operators are particularly concerned about the impact that the new rules will have on products that have, to date, been somewhat protected from the controversial E.U. stance on GM products. As noted earlier, soybeans had not been directly affected by the E.U. moratorium. But the new rules will now require GM labels for food containing soybean products, even for refined soybean oil, which had not been subject to such labels. The new E.U. regulation will also apply to feed products, such as soybean meal and corn gluten feed, which constitute an important portion of U.S. agricultural exports to the European Union.

What's Next?

The United States and the European Union remain as divided as ever on the issue of GM products. The European Union views its new regulatory framework as addressing legitimate public concerns about the environmental and health effects of GM products. It claims that the new process will be transparent, non-discriminatory, and will help build public confidence in this new technology. The United States, on the other hand, perceives the new labeling and traceability requirements to be burdensome, impractical, and ultimately constituting an unwarranted restraint on trade.

The root of the disagreement is deeper, as the United States sees no scientific basis for singling out GM products for special regulation. Indeed, it is quite clear that the new E.U. regulation is sending a mixed message to consumers. On the one hand, approved GM products supposedly have been found to be safe by the mandatory pre-approval risk assessment. On the other hand, mandatory GM labeling sends the "warning signal" to consumers that, after all, there may be something wrong (however undefined) with GM products. This continuing E.U. ambivalence about GM products reinforces the largely held view in the United States that the new E.U. labeling and traceability regulations contain unacceptable protectionist attributes that are inconsistent with the WTO agreement on technical barriers to trade. This may set the stage for a new, deeper WTO challenge to the E.U. policies on GM products. ◆

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