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GianCarlo Moschini
Iowa State, moschini@iastate.edu

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Agricultural Biotechnology and Trade: The Unresolved Issues

GianCarlo Moschini
moschini@iastate.edu
515-294-5761

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 Making 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 re-examination 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...
GM products are required to trans
marketing stages using or handling
accurate labeling. Operators at all
mental effects and to help enforce
monitoring of unintended environ-
quirements, meant to facilitate
traceability and labeling of GM or-
gisms). Whereas some GM label-
ing 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 ori-
gin. Such labels will have to state:
“This product contains genetically
modified organisms,” or “This prod-
uct has been produced from geneti-
cally modified [name of organism].”
Furthermore, the new rules intro-
duce (for the first time) labeling re-
quirements for GM feed (for
example, soybean meal and corn
glutens produced from GM vari-
eties 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 intro-
duced 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 im-
PLICIT requirement of zero tolerance
APPLIES). This mandatory labeling is
supplemented by traceability re-
quirements, meant to facilitate
monitoring of unintended environ-
mental effects and to help enforce
accurate labeling. Operators at all
marketing stages using or handling
GM products are required to trans-
mit information about the GM na-
ture 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.”

The E.U. regulation also outlines
a new, more centralized authoriza-
tion procedure to govern future ap-
provals 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 renew-
able) period of 10 years. Current
E.U.-approved GM products remain
eligible, but the limited 10-year ap-
proval 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 equiva-
rence” 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 cur-
rent WTO action against the Euro-
pean 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 require-
ments will prove costly and ulti-
mately unworkable. Labeling and
traceability are likely to add consid-
erable administrative and bureau-
cratic burden to transactions
involving agricultural products and
food, the end result of which is pre-
picted to be more costly food to E.U.
consumers, and lower prices for pro-
ducers in exporting countries. Per-
haps the biggest unknown is how
E.U. consumers will react to food la-
beled 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 in-
dustry may result, with possible
deep repercussions on world mar-
Kets. 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 re-
mains 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.

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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. ambiguity 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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