## SCIENCE'S COMPASS

SCIENTISTS ORIENTING SCIENTISTS

## Opportunity for Agricultural Biotechnology

Richard J. Mahoney

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he Cartagena Protocol on Biosafety that was agreed to in Montreal in January 2000 potentially creates the first global regulatory structure that focuses exclusively on biotechnology.\* The next stage in the highly structured process takes place on 15 to 26 May 2000 in Nairobi, Kenya, where the protocol language will be officially adopted by the participating countries. It will become binding 90 days after ratification by 50 countries—a process estimated to take 2 years. Ironically, the United States, clearly the leader in biotechnology, is not a party to the protocol, because the U.S. Senate did not ratify the enabling convention at the Rio Earth Summit in 1992. Nonetheless, the United States will be governed by the protocol in world trade if its trading partners ratify the proposal, because it takes two to trade.

Several key protocol elements were positive for supporters of biotechnology. Among the most significant: Pharmaceutical products will not be affected. This exclusion was a major accomplishment. In addition, the protocol recognizes potential benefits of genetically modified agricultural products: "Modern biotechnology has great potential for human well-being if developed and used with adequate safety measures for the environment and human health." Although this may not sound like much, in this contentious field it is akin to the Middle Eastern countries saying that Israel has the right to exist. The Montreal statement does not contravene existing rights and obligations under prior approved international agreements such as those made by the World Trade Organization (WTO). What this particular element will mean in practice is yet to be tested.

The protocol also requires that shipments of commodity grains for food, feed, and processing contain a statement that they "may contain GMOs" (genetically modified organisms) unless they

are specifically certified as GMO-free, and leaves open until later the possibility of more specific labeling. It also allows countries to reject GMOs unilaterally, even those that only may contain GMOs. The protocol specifies: "Lack of scientific certainty due to insufficient relevant scientific information and knowledge regarding the extent of the potential adverse effects . . . shall not prevent the party from taking a decision." As onerous as it sounds, this is essentially the same language contained in relevant WTO rules. However, it can lead to arbitrary unscientific rejection of some products.

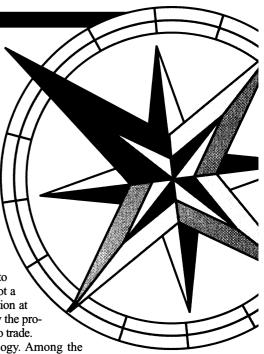
As in all contentious international agreements, each side gave up something. But it also was necessary to defer a few issues until later and include a certain amount of vague and flexible language for future definition, likely in a legal setting. Probably the greatest benefit of the protocol is that it provides an "internationally agreed and acceptable rationale" for receiving countries to use in countering groups that are certain to continue their opposition to biotechnology. The burden now shifts to U.S. companies and agencies, scientific communities, and counterpart groups in other provider countries to make a convincing case for agricultural biotechnology with solid data, reliable safeguards, and compelling

benefits. If they fail, the opportunity presented by the Cartagena Protocol will have been wasted. The role of the greater scientific community cannot be underestimated. That community has largely been missing in action on the agricultural biotechnology public debate. Although that absence has been a significant disappointment to industry and government biotech supporters, it now allows the scientific community to be a new voice to mediate entrenched positions in the public arena. A case in point is the 5 April 2000 report from the National Academy of Sciences, which is generally positive on agricultural biotechnology but urges strengthened regulation.

After Montreal, there is for the first time a protocol, a forum, and, most important, an acceptable rationale for approval of agricultural biotechnology products by receiving countries should they choose to use it. The future of agricultural biotechnology is by no means ensured in international trade, but the Cartagena Protocol is a potentially enabling first step.

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\*Named in honor of Cartagena, Colombia, site of the First Extraordinary Conference of the Parties to the Convention in 1999. Montreal participants represented approximately 135 of the 168 signatory countries to the original enabling Rio Convention in 1992.



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