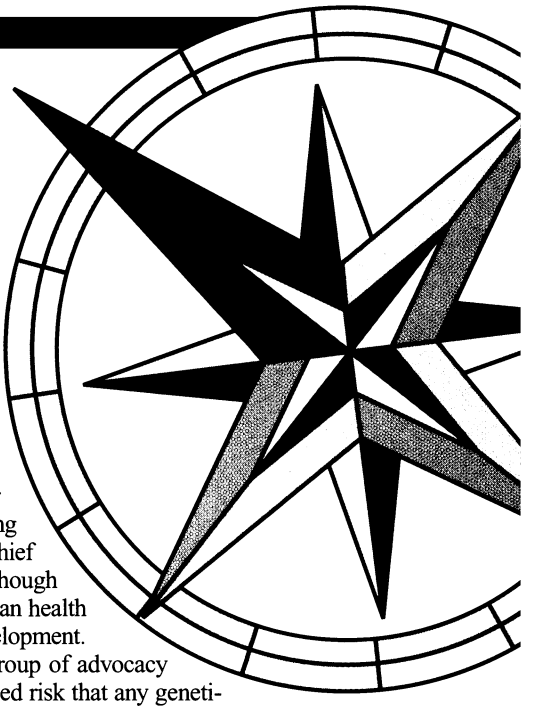

Politics, Misinformation, and Biotechnology

Christopher S. Bond

In the past half century, the number of people fed by a single U.S. farmer has grown from 19 to 129. Despite this stunning advance, intractable health and nutrition problems remain. The world's population continues to grow even as available farmland shrinks. Preventable illnesses and malnutrition still claim the lives of many children in the developing world. As the new millennium gets under way, policy-makers, health care professionals, scientists, and others are searching for the tools to meet the increasing demands of a growing and changing world. Chief among these tools is biotechnology. Leading scientists have concluded that, although still in its infancy, biotechnology has breathtaking possibilities for improving human health and nutrition and that a satisfactory regulatory system is in place to govern its development.

Despite this consensus, a vocal, aggressive—and in some cases, lawless—group of advocacy organizations seeks to discredit and eliminate biotechnology. At issue is the alleged risk that any genetically modified plant may pose to the environment. However, the issue of risk is by no means one-sided. Yes, we must understand whether transgenic corn poses more risk to the Monarch butterfly than does the existing practice of using synthetic chemicals. However, the greater risk, in my view, is that without a scientific basis, the naysayers may succeed in their goal of subverting biotechnology and thus condemn the world's children to unnecessary malnutrition, blindness, sickness, and environmental degradation.

Although positive change is to the collective long-term benefit of us all, it typically results in short-term difficulties, anxiety, and fear for some. Opposition of the sort I witnessed at firsthand while at the December 1999 World Trade Organization meeting in Seattle, Washington, has been driven variously by trade-protectionist and anticorporate sentiment, by competing food marketers such as the whole-foods industry, and by scientifically unsubstantiated fears of change and technology. Some of those who seek to undermine biotechnology are not interested in seeking information or constructive dialogue. Some in Europe have adopted a constrained trade policy that consists of exporting little more than hysteria, which we can expect to energize the professional political ambulance-chasers here in the United States. Sadly, the actions of radicals such as those who recently vandalized test plots in California and set fire to research offices at Michigan State University are not harmless pranks; rather, such tactics lead to diminished public understanding of the benefits versus the risks of biotechnology.

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Diminished understanding is key to obstructing biotechnology. In discussions of fact, the scientific viewpoint will prevail. However, public education will remain challenging. Given the nature of the modern media, will scientists have to start dressing up as corncobs, as some protestors have done, to get media attention? During the past 2 years, I have asked scientists to work with their local media representatives and public officials to help them separate fact from fiction. After the problems in Seattle, it is clear that much more must be done. We must work diligently to ensure that consumers, who drive food production, are adequately informed about the science supporting the uses of biotechnology. Input from the scientific community is vital, but we cannot count on the media to find scientists; scientists must actively seek to influence the media. As we work to counteract the naysayers, we should be encouraged that most Americans, and many others in developed countries, embrace technological advances and are generally receptive to the benefits that new technologies bring to their lives.

A protocol for an international agreement regarding trade of genetically engineered products has just been released. Although full understanding of the implications of the agreement will not precede its implementation, we can all hope that it will serve to better inform all citizens and depoliticize the process in favor of science-based decision-making.

The development of this technology is not recreational. Through biotechnology, scientists are attempting to solve the real-world problems of sickness, hunger, and resource depletion. The hysteria and unworkable propositions advanced by those who can afford to take their next meal for granted have little currency among those who are hungry. It will be up to the policy-makers, advocates for the needy, scientists, the media, and others to ensure that reason, not hype, prevails.

The author is the senior Senator from Missouri in the U.S. Senate.