NABC Report 12

The Biobased Economy of the Twenty-First Century: Agriculture Expanding into Health, Energy, Chemicals, and Materials

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Providing an open forum for exploring issues in agricultural biotechnology

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- NABC Report 6, Agricultural Biotechnology & The Public Good (1994)
The heartening success of the 12th annual meeting of the National Agricultural Biotechnology Council resulted from the superb efforts of the planning committee at the University of Florida, Gainesville, headed by William F. Brown and Judy F. Kite: Jerry Bennett, Dan Cantliffe, John Davis, Dean Gabriel, Charles Guy, Maria Gallo-Meagher, Glen Hembry, Lonnie Ingram, Shelly Schuster, and Rosalia Simmen.

Special thanks go to the facilitators who ably guided the discussions of the workshop attendees: Walter Anderson, Matt Baker, Jeff Burkhardt, Christine Chase, David Clark, Bill Dawson, Walt Fehr, Mike Fields, Dean Gabriel, Maria Gallo-Meagher, Dennis Gray, Charles Guy, Ed Hoffmann, Tracy Hoover, Marjorie Hoy, Lonnie Ingram, Tracy Irani, Jane Luzar, Joe Schaefer, Shelly Schuster, Rosalia Simmen, Mickie Swisher, Ricky Teig, and Indra Vasil.

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NABC is greatly indebted to the Alternative Agricultural Research and Commercialization Center (AARC), for generous funding support, and to Darrell W. Nelson, University on Nebraska, for his excellent leadership as Chair during 1999–2000.

In addition, I wish to recognize the five years service of Jane Baker Segelken as Executive Coordinator of NABC, and offer her NABC's best wishes in her new endeavors. I am pleased to welcome Allan Eaglesham as Executive Director.

Ralph W.F. Hardy
NABC President

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When the National Agricultural Biotechnology Council (NABC) was established in 1988, its goals were the early identification of agricultural biotechnology issues and their discussion in an open forum; the safe efficacious and equitable development of the products and processes of agricultural biotechnology; and the development of public policy recommendations. Today, with a membership that includes thirty-three of the leading not-for-profit agricultural research and educational institutions in Canada and the United States, the NABC continues to strive to identify and consider in open forum the major issues, and provide all stakeholders -- including representatives from academia, government, industry, public interest, farming, and others -- the opportunity to speak, to listen, and to learn. Through its meetings, the NABC has addressed many major topics: sustainable agriculture in 1989, food safety and nutritional quality (1990), social issues (1991), animal biotechnology (1992), risk (1993), public good (1994), discovery, access, and ownership of genes (1995), novel products and new partnerships (1996), challenged environments (1997), gene escape and pest resistance (1998), and the impacts of biotechnology and industrial consolidation on world food security and sustainability (1999).

In 1998, the NABC Council issued a Vision Statement for agriculture and agricultural research in the twenty-first century. It envisions improved food, feed, and fiber, but most importantly sees agriculture expanding into energy, chemicals, and materials. This biobased economy of the twenty-first century, balanced with a reduced fossil-based economy, is projected to contribute to national security, sustainability, minimization of global climate change, expanded farmer-market opportunities, and rural development. In 2000, the NABC’s twelfth annual meeting, hosted by the University of Florida, Gainesville, and held in Orlando, May 11 to 13, focused on these opportunities. It was the first discussion to explore benefits from, and concerns about, the biobased economy, and how they may best be managed. Attendees were able to visit the Village Green exhibit at Disney World’s Epcot Center (the theme of which is biobased, renewable resources) that is expected to be viewed by 10 to 15 million people during its 15 months of opening. Almost simultaneous with the meeting, the National Research Council published Biobased Industrial Products: Priorities for Research and Commercialization.

The NABC12 presentations and discussions addressed many of the underpinning and ancillary issues of the development of a biobased economy nationally and internationally: the roles of academia, industry and government, farmer-industry relationships, bioethics, effects on the environment including climate change, energy security, and effects on food production in a world of
expanding population.

Leaders from relevant and diverse organizations -- academia, the chemical industry, farmer cooperatives, the USDA and the DOE -- shared their views with an even more diverse group of attendees that included traditional and organic farmer/growers, industry representatives, consumers, university faculty, students and administrators, state and national agency/government representatives, elected representatives, and leaders and members of public activists groups. This report contains the summary of the workshop discussions and the plenary presentations.

Concerns ranged from whether farmers will benefit, to whether a biobased economy is viable against a backdrop of increasing scarcity of arable land necessary to feed the expanding population. We believe the reports herein, both workshop and plenary, provide excellent sources of information and coverage of the salient issues regarding the development of a biobased economy.

The forums provided by NABC foster meaningful communication on agricultural biotechnology, hence they promote understanding amongst diverse viewpoints, and allow the sharing of concerns. The 2001 NABC annual meeting -- High Anxiety and Biotechnology: Who's Buying, Who's Not, and Why? -- hosted jointly by the University of Illinois and Iowa State University, will be held in Chicago, May 22–24. Participants will have opportunities for discourse and debate on the safety, ethical, and environmental issues that influence the acceptance of biotechnology, especially by consumers.

In 1999, NABC published the Statement 2000 on Agricultural Biotechnology: Promise, Process, Regulation, and Dialogue to provide a concise but comprehensive overview of agricultural biotechnology. This statement invites individuals and organizations with concerns and stakes in agricultural biotechnology to participate in discussion of pivotal issues. The goal of NABC in this effort is to ensure that society, in terms of quality of life, security of food supplies and environmental sustainability, will benefit maximally from agricultural biotechnology while incurring minimal risks. Statement 2000 is included as an appendix of this report, as is the Vision Statement.

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