



NATIONAL AGRICULTURAL BIOTECHNOLOGY COUNCIL REPORT

COVER ILLUSTRATION: Cultivars of crops (canola, corn, cotton, papaya, rice, soybean, *etc.*) with enhanced agronomic traits produced by biotechnological means—including genetic engineering—are being grown by farmers throughout much of the world including developing countries.

(With thanks to the USDA ARS IS Photo Unit, Beltsville, MD)

NABC REPORT 16

*Agricultural Biotechnology:
Finding Common International Goals*

Edited by Allan Eaglesham, Alan Wildeman, and Ralph W.F. Hardy

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Agricultural Biotechnology: Finding Common International Goals

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NATIONAL AGRICULTURAL BIOTECHNOLOGY COUNCIL

*Providing an open forum
for exploring issues in
agricultural biotechnology*

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NABC Report 10, *Agricultural Biotechnology and Environmental Quality: Gene Escape and Pest Resistance* (1998)
NABC Report 12, *The Biobased Economy of the Twenty-First Century: Agriculture Expanding into Health, Energy, Chemicals, and Materials* (2000)
NABC Report 13, *Genetically Modified Food and the Consumer* (2001)
NABC Report 14, *Integrating Agriculture, Medicine and Food for Future Health* (2002)
NABC Report 15, *Biotechnology: Science and Society at a Crossroad* (2003)

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NABC 16, the sixteenth annual meeting of the National Agricultural Biotechnology Council—*Agricultural Biotechnology: Finding Common International Goals*—was hosted by Alan Wildeman, vice-president for research at the University of Guelph, to whom we are most grateful. The meeting convened at the university June 13–15, 2004, and its great success was due in no small measure to the excellent agenda drawn up by the program committee, David Castle (Guelph), Spencer Henson (Guelph), Kevin Kephart (South Dakota State University), Katie Meyer (Guelph), Kirit Patel (Guelph), Tony Shelton (Cornell University), Steven Slack (Ohio State University), Randy Woodson (Purdue University) and Alan Wildeman. That the meeting ran seamlessly resulted from the unflagging efforts of Katie Meyer over many months as coordinator.

Special thanks go to the facilitators who ably guided discussions during the breakout sessions: David Castle (University of Guelph), Stewart Hilts (Guelph), Sally Humphries (Guelph), Ricky Yada (Guelph) and Tony Shelton (Cornell University). These discussions were recorded by Mei Bi (Guelph), Janice DeMoor (Guelph), Carol Hannam (Guelph) and Sarah Bates (Cornell University), to whom we also owe a debt of gratitude. And we thank Craig Johnson, John McDermott, Helen Hambly Odame, Vernon Thomas, Owen Roberts and Sue Bennett (all of the University of Guelph) for their contributions.

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We conclude by thanking Steve Pueppke on behalf of NABC for his excellent leadership as 2003–2004 chair.

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March 2005

PREFACE

NABC's sixteenth annual meeting—*Agricultural Biotechnology: Finding Common International Goals*—focused on how agricultural biotechnology is being used, and may be further developed, to address three goals that are common to all countries, *i.e.* to minimize the ecological footprint of people on the planet, to address quality-of-life issues for all people including those who grow crops, and to address the need for safe and healthy food. Prior to addressing these issues, the stage was set with a keynote session—*Opening Global Dialogue*—with presentations from Kanayo Nwanze (Director General, Africa Rice Center), Neal Van Alfen (Dean of the College of Agriculture and Environmental Sciences, University of California at Davis), and M.S. Swaminathan (Chairman, M.S. Swaminathan Research Foundation). Hosted by the University of Guelph, and held June 13–15, 2004, NABC 16 attracted over 160 attendees from more than twenty countries; throughout the meeting there was a strong emphasis on keeping the discussion focused on broad global perspectives.

At the conclusion of the formal presentations within each of the three “modules,” meeting participants convened in breakout sessions, for further discussions of themes presented by the plenary speakers.

This report contains an overview of the meeting, a summary of the breakout workshops and recommendations made, the keynote and plenary presentations, and presentations made during luncheons and dinner. Transcripts of audience Q&A sessions are also provided.

This meeting was one of the most globally comprehensive to date, with speakers from Asia, India, Africa, Europe and the Americas expressing enthusiasm for and concern over the role of agricultural biotechnology. In general, enthusiastic farmer endorsement was reported for Asia, India, Africa and the Americas.

On April 20, 2004, a Congressional Briefing—focused on NABC's annual meeting in 2003 (hosted jointly by Washington State and Oregon State Universities), *Biotechnology: Science and Society at a Crossroad*—was held on Capitol Hill. Presentations were made by Sandra Ristow, Steve Pueppke and Ralph Hardy, and copies of the proceedings volume were distributed. A similar Congressional Briefing is planned for the spring of 2005, at which the outcomes of *Agricultural Biotechnology: Finding Common International Goals* will be described and discussed.

NABC's seventeenth annual meeting, *Agricultural Biotechnology: Beyond Food and Energy to Health and the Environment* will be hosted jointly by the Universities of Kentucky and Tennessee and will convene June 27–29, 2005, in Nashville. Keynote addresses will be provided by Roger Beachy (Danforth Center) and Michael Rodemeyer (Pew Initiative) and modules will be titled *Plants as New Sources of Medicinals: Production of Protein Pharmaceuticals in Food and Non-Food Plants; Bioremediation, Phytosensing and Eco restoration; Gene-to-Product Development; and Agricultural Biotechnology: Regulation, Commercialization, and Risk Management*. Further information may be accessed via www.outreach.utk.edu/ppd/nabc.

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