

Meeting Summary

STRATEGIES FOR COEXISTENCE OF GMO, NON-GMO, AND ORGANIC CROP PRODUCTION

Embassy Suites – Minneapolis Airport
November 27-28, 2001

**Prepared by
Iowa State University
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OVERVIEW

“It is very important to the success of the meeting that we concentrate on strategies for coexistence, and not on the virtues of any of the types of crop production. The meeting will fail if it turns into a forum for bashing GMO, non-GMO, or organic crop production. Numerous other meetings have and will be held to debate the virtues of the three types of production.”

The above quote from an e-mail message sent by Walter Fehr to those invited to the meeting *Strategies for Coexistence of GMO, Non-GMO, and Organic Crop Production* succinctly expresses both the planning challenges and the uniqueness of this event. The meeting was challenging because participants were asked to stay focused in a highly controversial arena and unique in that they succeeded!

The meeting grew from discussions among participants in a United States Department of Agriculture grant. In the fall of 2000, the Initiative for Future Agriculture and Food Systems (IFAFS) program of the Cooperative State Research, Education, and Extension Service, U.S. Department of Agriculture, awarded a \$3.7 million grant to nine land-grant institutions in Minnesota, North Dakota, South Dakota, Iowa, and Wisconsin. During the four years of the grant, the institutions and producer, government, consumer, environmental, public interest, and industry organizations are addressing the economic, ethical, and social aspects of agricultural biotechnology.

At the annual meeting of the consortium in June 2001, one topic of discussion was the need for a meeting of producers, government officials, land-grant institutions, and industry representatives to explore strategies for the coexistence of GMO, non-GMO, and organic crop production in the five-state region. No consortium grant funds were earmarked for such a meeting, so the cost of the meeting rooms and food was covered by funds from Iowa State University. Participants covered the cost of their travel expenses. The event was scheduled for November 27-28, 2001, at the Embassy Suites–Minneapolis Airport.

A key role for the meeting organizers (see p. 5) in each of the five states was to develop an invitation list. The goal was to invite up to 15 attendees from each state. These persons represented GMO, non-GMO, and organic producers; the departments of agriculture in each state; the universities and colleges in the consortium; and industries and federal agencies.

The agenda for the November meeting was finalized during the summer and fall preceding the meeting. It was decided to begin the meeting with a panel of producers of GMO, non-GMO, and organic crops who would each briefly address the issues of coexistence as they saw them. After a time of general discussion, the meeting participants attended breakout sessions to further identify issues associated with coexistence of the three types of crop production and begin to formulate possible strategies to address the issues.

A town meeting with representatives from Pioneer Hi-Bred International, Inc.; Syngenta; and Monsanto ended the first day's sessions. In late October, all those invited to the meeting were encouraged to submit questions and comments to the industry representatives in advance. At the

town meeting, the industry representatives answered some of these questions and others from the floor as they addressed how industry can facilitate the coexistence of GMO, non-GMO, and organic crop production.

On the second day of the meeting, a panel consisting of a USDA grain specialist, a North Dakota State University economist, and a representative of Pioneer Hi-Bred International, Inc., discussed issues associated with establishing tolerances, production economics, and traceability of identity preserved crops. After general discussion and more time in their breakout sessions, the meeting participants reconvened to present their recommendations for facilitating coexistence (see p. 10).

Members of the grant consortium, producer organizations, state and federal officials, and industry representatives are continuing to explore which recommendations should be pursued and how. Readers of this report who would like to contribute to this process should send an e-mail message to biotech@iastate.edu or phone 515-294-9818.

MEETING ORGANIZERS

The planning committee was chaired by Walter Fehr, the meeting arrangements were made by Teresa Peterson, and the meeting report was written by Glenda Webber of Iowa State University.

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AGENDA

Strategies for Coexistence of GMO, Non-GMO, and Organic Crop Production
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Tuesday, November 27- Palm Ballroom

1:00 p.m. Welcome – Walter Fehr, Iowa State University

1:10 Panel of producers to address the issues of coexistence

Moderator – Rick Klemme, University of Wisconsin-Madison

Organic crop producers – Ron Roseman (IA) and Randy Hughes (WI)

Non-GMO crop producers – Norman Chambers (IA) and John Pounder (WI)

GMO producers – Dave Boettger (IA)

2:40 Discussion

3:00 Break - Atrium

3:15 Breakout sessions to discuss the issues and develop strategies for coexistence

Session I – Palm Ballroom

Iowa moderators of a breakout group – Jamie Cashman, Iowa Department of Agriculture and Land Stewardship, and Fred Kirschenmann, Leopold Center

Session II – Azalea Room 2

Minnesota moderators of a breakout group – Seth Naeve, University of Minnesota, and Paul Strandberg, Minnesota Department of Agriculture

Session III – Azalea Room 1

North Dakota moderator of a breakout group – Duane Hauck, North Dakota State University

Session IV – Executive Board Room 513

Wisconsin moderators of a breakout group – Rick Klemme, University of Wisconsin-Madison, and Nick Neher, Wisconsin Dept. of Ag, Trade, and Consumer Protection

5:00 End of breakout session

5:30 Social hour – Manager's Reception, Atrium

6:00 Dinner – Willow Ballroom

7:15 Town Meeting with representatives from biotechnology companies to discuss how they can facilitate coexistence – Palm Ballroom

Moderator – Duane Hauck, North Dakota State University

Pioneer Hi-Bred International, Inc. – James Miller, VP for Research

Syngenta – David Jessen, VP for Research

Monsanto – Roger W. Krueger, Global Seed Quality Leader

Wednesday, November 28

8:00 a.m. Panel dealing with tolerances, economics, and traceability

Moderator – Seth Naeve, University of Minnesota – Palm Ballroom

Tolerance – David Shipman, USDA/GIPSA

Economic – Bill Wilson, North Dakota State University

Traceability – Bob Kennedy, Pioneer Hi-Bred International, Inc.

9:00 Discussion

9:30 Break and breakout sessions resume

Session I – Palm Ballroom 1

Session II – Azalea Room 2

Session III – Azalea Room 1

Session IV – Executive Board Room 513

11:00 Reports by the breakout groups – Palm Ballroom

11:50 Closing remarks – Walter Fehr, Iowa State University – Palm Ballroom

12:00 End of meeting

Strategy Recommendations from Participants

Issue 1: Neighbor Relations/Notification

1. Seed companies need to be more effective in communicating to producers of GMO (genetically modified organisms), non-GMO, and organic crops their responsibility to inform neighboring producers of their planting plans. Training for company seed dealers and other sales staff in how to enhance cooperative producer relationships should be emphasized.
2. Establish an organic registry, available as a public database, where organic producers register the locations of their organic crops.
3. Expect organic producers to notify their neighbors of their planting plans, or forfeit protection under any insurance program designed to protect organic producers from genetic contamination of their crops.
4. Establish a global positioning system (GPS) map of GMO, non-GMO, and organic growing sites and make available on the Internet.

Issue 2: Standardized Testing for GMO Crops

1. Companies should make inexpensive, fast, and reliable detection tests and protocols available for each event (successful insertion of foreign DNA) before a product based on the event is marketed.
2. The United States Department of Agriculture (USDA) should continue to collaborate with companies to develop standardized tests for each new event. The USDA's Biotechnology Advisory Committee should monitor the effectiveness of the standardization process.
3. Use the Grain Inspection, Packers, and Stockyards Administration (GIPSA) to certify GMO testing laboratories and test protocols.
4. State departments of agriculture, regional research committees of land-grant universities, and other scientists should evaluate company testing protocols.
5. Land-grant universities should develop and disseminate testing protocols and USDA Extension materials to inform producers and industry of available resources and methods.

Issue 3: Producer Risk Management/Liability for All Identity Preserved (IP) Crops

1. Request that a third-party Risk Management Agency (RMA) establish a pilot program for an indemnity fund to reimburse losses caused by genetic contamination of non-GMO and organic corn by GMO corn.

- a. Explore mechanisms with organic grower associations and corn grower associations to create a pilot indemnity fund.
 - b. Use monies from seed companies, state funds, and organic certification fees to establish an indemnity fund.
 - c. Establish a coordinating entity for the indemnity fund with membership from grower associations, state officials, state legislators, federal congressional delegations, and the RMA.
2. Define legal responsibilities and liability for compromised crop production.
 3. Use scientific, financial, and legal mechanisms to develop a no trespass production policy, applicable to all types of IP production.
 4. Ask land-grant universities to review legal precedents, alternatives, and common practice for similar legal situations and distribute their findings through the USDA Cooperative Extension Service.
 5. Establish producer-friendly web sites or other mechanisms to update producers on current legal information.
 6. Modify federal crop insurance program to provide cross-contamination coverage.

Issue 4: Identity Preservation Growing Systems

1. Land-grant universities should conduct need assessments and convene focus groups of producers and industry to determine what information is needed.
2. Land-grant universities should be provided with the information and resources they need to evaluate new GMO events and their implications for producers before products using the events are released.
3. Establish Best Management Practices (BMPs) to maintain genetic purity of GMO, non-GMO, and organic crops and encourage land-grant universities, under local environmental review, to develop a guide for preventing pollen drift and other means of contamination. Involve industry seed representatives, land-grant universities, and producer organizations in development of BMPs and educational efforts.
4. Review and assess existing systems that could be used as IP models, such as those used for seed corn production, pesticide certification, bee keepers' programs, and General Mills food grain production programs.
5. Explore technologies that may render pollen drift and other means of genetic contamination irrelevant, such as making GMO pollen inviable on non-GMO corn.
6. Use a third party to do risk analysis and assessment instead of the developer of a GMO event.

7. Through a public dialogue process, revise federal farm policy to support coexistence of GMO and non-GMO crops.
8. Tailor farm land program retirement or set-asides to include incentives for separation buffers to prevent unwanted pollen transfer among IP crops.
9. Land-grant universities should continue to seek funding and source materials from industry and state and federal governments to establish/expand germplasm banks and maintain a world history of genetics.
10. Maintain international perspective in all decisions and programs.
11. Develop a plan to deal with heightened risk of pharmaceuticals produced in crops.

Issue 5: Identity Preservation Handling Systems

1. Ask the National Association of Secretaries of Departments of Agriculture (NASDA) to develop a policy on IP handling systems.
2. Modify existing marketing systems to accommodate identity preservation.
3. Establish dedicated specialty seed and grain handling facilities.
4. Promote re-design of field equipment to make identity preservation easier for producers.
5. Establish separate market systems for food and non-food uses.
6. Integrate new IP systems with educational programs for producers, possibly developed by the USDA Cooperative Extension Service.
7. Address who pays for modifications of existing systems to accommodate IP.
8. Encourage research on an easily identifiable and sortable trait or genetic marker on seed that would lend itself to mechanical sorting to reduce accidental co-mingling of IP crops.

Issue 6: Tolerances

1. The USDA should continue to push for standardized performance standards via the Organic Farming Research Foundation (OFRF) and the USDA's Biotechnology Advisory Committee.
2. Establish a standardized worldwide set of tolerances for technologies and crops based on the best science and continued dialogue among trading partners.
 - a. Request appropriate agencies in World Trade Organization to make standardized worldwide tolerances a priority.
 - b. Research consumer acceptability of various tolerance levels.

3. Land-grant universities, the USDA, and industry should cooperate in discovering acceptable commercial and regulatory tolerances applicable from seed source to consumer and clearly distinguish between the two types of tolerances.
4. Land-grant universities should educate and involve consumers in the establishment of tolerances.
5. Encourage focusing on certification of the production process rather than testing for the presence of a specific attribute.
6. All segments of industry should be cooperatively involved in developing process certification standards at all levels of production.