## Workshop B

# Potential Promises and Problems Associated with Changing Business Strategies in Agriculture

The participants in Workshop B focused on the following questions: What new trends are seen in business strategies related to agricultural food production and distribution? How is biotechnology contributing to these changes? What are the perceived promises and problems associated with the new business strategies?

Five different breakout groups met to discuss the questions. As with Workshop A, the groups met in three successive sessions to progressively hone in on important questions and concerns about emerging business strategies in the agricultural industry.

#### TRENDS IN THE AGRICULTURAL INDUSTRY

The entire Workshop B group discussed key trends that they saw in agribusiness in the U.S., Canada, and the rest of the world. From these discussions emerged the following conclusions.

## 1. Consolidation within the ag industry is increasing:

There has been rapid consolidation (through mergers, acquisitions, and strategic alliances) of several large companies in the seed and agrichemical arenas to create a few dominant multi-national organizations. These companies control a significant share of advanced germplasm for the world's major agricultural crops and much of the cutting edge technology in agricultural biotechnology. In addition, there is a growing trend toward vertical integration within the agricultural sector in addition to an increasing number of strategic alliances that allow for "vertical coordination" of food production, processing, and marketing to the consumer.

## 2. Consumers continue to benefit — but are largely unaware of issues surrounding their food supplies:

Consumers continue to be provided with a safe, low-cost supply of reasonably healthy foods. The global seed companies are providing farmers with crops possessing new and important agronomic traits.

Present genetically engineered traits are aimed at lowering production costs for farmers and, thus, may indirectly benefit consumers by helping to maintain low food costs. In a limited number of cases to date, seed biotechnology companies have provided farmers with seeds for crops with value-added traits that command a premium price. An ever-growing list of crops with additional new and valuable traits is anticipated over the course of the next several years. Much of this is the result of research and development within the multinational companies (i.e., university research is no longer seen by some as the prime source of new agronomic and value-added traits).

It was the view of many workshop participants that many consumers in developed countries know little about how their food is produced, processed, and distributed. Thus, when questions of food safety arise, such as those in Europe associated with "mad cow" disease, consumers are ill educated and ill prepared to cope with important decisions. When something new appears, like "genetically modified" foods, these same consumers again are not fully prepared to decide if such foods are good for them and their families. Provision of accurate, easily understood information regarding genetically modified foods to a broad section of the public was seen as an important step toward potential acceptance of these foods by society. No quick and easy means for accomplishing this were identified. Nonetheless, there was a strong admonition that emphasis be placed on research (especially publicly funded research) that would quickly lead to products easily perceived by consumers as products they liked and would be demanded in the marketplace.

## 3. Farmers are being squeezed:

Access to fewer suppliers for inputs, licensing of needed technologies and traits, higher input costs for seeds and other supplies, lower prices for commodity crops and livestock, and increased complexity of agricultural markets are but a few of the challenges faced by farmers in North America, Europe, and the remainder of the developed world.

Biotechnology was viewed by group members as providing at least short-term promise of specialty crops and niche markets for farmers willing to take the risks associated with producing new crops under specified conditions. It was concluded that most often this would be accomplished through production by farmers under contract to a specific company that controls access to the germplasm being used. In the long term, contract farming was viewed as raising significant concerns regarding the ability of the farmer to operate a reasonably profitable, independent business — especially if there was strong dependence

on one company as an avenue to the marketplace. The plight of poultry producers was the most commonly cited example of a paradigm not to be adopted. The pressure on agricultural producers to continue to enlarge operations for the sake of efficiency and uniformity was noted as a growing concern for farmers. Under such conditions, it was thought they might well find their communities and social support systems (e.g., schools, health care facilities, banks, churches, retail stores, etc.) shrinking beyond that which is acceptable for them and their families.

### 4. The marketplace is changing:

The advent of genetically engineered commodity crops and specialty crops is changing the dynamics of production, marketing, and distribution of agricultural products. Identity-preserved crops demand separate handling facilities. Potentially, this also may apply to genetically modified grains and processed foods destined for particular countries or regions. The "opportunity" for foreign countries to establish protectionist policies based either on fact or on misinformation was a significant concern to a number of those participating in the Workshop sessions.

Specialty crops have the potential to provide a segment of the farming community with greater sources of income and business opportunities unless, as mentioned earlier, contract farming leads to marginal returns and decreased independence. The Workshop participants considered how farmers could protect themselves from the perceived negative aspects of industrial consolidation in agriculture. Greater collective action through purchasing and marketing groups, farm organizations, and other organizations with significant economic and political clout were viewed as among the few options open to farmers and ranchers who wished to maintain a reasonably profitable business and satisfactory life style. Another possibility is farmer/grower cooperatives with ownership of value-added processing.

## 5. New scientific and business opportunities abound:

A strong majority of Workshop participants saw a continued flow of new discoveries in plant and animal biology that will have potential to be translated into new products of agriculture biotechnology. The sequencing of genomes for many crop plants and farm animals in the next few years will set the stage for the emergence of functional genomics techniques. These techniques will speed additional scientific discoveries and may lead, ultimately, to a more holistic understanding of how cells and organisms coordinate a myriad of chemical reactions and physiological functions. This knowledge will prove powerful in developing more and more sophisticated approaches for controlling production in plants and animals used for agriculture throughout the world. Conferees voiced concern that such "promise" could be achieved in the near future only through increased emphasis on, and funding of, university research. Indeed,

several participants contended that intellectual protection of genes is fueling industrial consolidation and inhibiting progress by public sector researchers. Nonetheless, others predicted for those with the foresight, resources, and energy to exploit the newly created knowledge, there will continue to be exceptional opportunities. Finally, in the view of many participants in the NABC Workshops, it is imperative that a set of mechanisms be put in place to help ensure fair and equitable access to the fruits of this technology for food producers, input suppliers, distributors, and all persons in all countries.