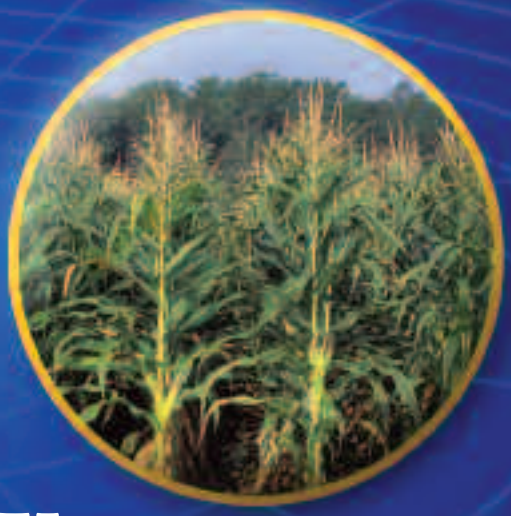
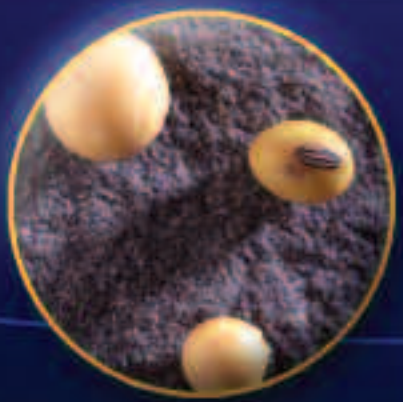


Food Traceability & Assurance in the Global Food System

Farm Foundation's Traceability and Assurance Panel Report, July 2004



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Preface

For more than 70 years, Farm Foundation has worked to help private and public decision makers identify and understand the forces shaping the economic viability of agriculture and rural North America. Traceability and assurance is one such issue, particularly since these protocols are more prevalent in several markets of the world, particularly the European Union, than in the United States.

The expanding volume of global agricultural production and trade, food safety concerns, genetically modified organisms, and food industry biosecurity has focused attention on the viability of tracing food products from retail to farm, and the need to assure specific food ingredient attributes.

Because food traceability and assurance represent a fundamental change in the relationships that exist among market participants, it is inevitable that important questions be raised about the motivations, constraints and appropriate locations of responsibility in implementing these protocols in the United States.

Farm Foundation brought together a panel of industry leaders from most segments of the grain and meat supply chains, and representatives from various agencies of USDA. The charge to the Panel was to define the forces—both pro and con—motivating the adoption of traceability and assurance protocols, and to explore the implications for the various sectors of the United States food system. Over the last 18 months, the Panel members have discussed the issues of traceability and assurance on the U.S. food system. This report is based on that dialogue.

Farm Foundation's intent is for this report to aid informed decision-making in both the public and private sector.

We extend our thanks to DeeVon Bailey of Utah State University, and Eluned Jones of Texas A&M University, for their leadership in coordinating this project. But this project would not have been possible without the experience, knowledge and thoughtful input of the Panel members. We deeply appreciate their time and contribution to this project.

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Any opinions, findings, conclusions or recommendations expressed in this publication are those of the Panel collectively, and do not necessarily reflect the personal views of each member of the Panel or of the institutions with which they are affiliated.

Executive Summary

Because food traceability and assurance represent a fundamental change in the relationships among market participants, it is inevitable that important questions will be raised about the motivations, constraints and appropriate location of responsibility in implementing these protocols in the United States (US).

Farm Foundation's Traceability and Assurance Panel debated many approaches to the challenges facing US food and ingredient supply chains in dynamic global markets. On one issue, however there was clear consensus: One size does not fit all.

Key issues identified by the Panel include:

- USDA agencies have, historically, provided market facilitation and oversight through regulatory protocols, consistent with legislative authority, that do not recognize differences in firm size or strategic objectives, i.e. one size fits all. Thus, the difference between facilitation and constraint of markets may place the private and public sectors in opposition in a dynamically changing global market.

- Traceability and assurance protocols that incorporate existing food safety and assurance elements, such as HACCP and ISO 9000, have the potential to provide an umbrella framework for the diversity of public and private market facilitation needs in the food system. They may address such issues as,
  - food safety contaminations,
  - intentional biosecurity contamination,
  - requirements established for market entry by country or firm,
  - opportunities to address inefficiencies in the supply chain, such as non-safety contaminations that violate contractual specifications,
  - opportunities to identify extrinsic characteristics such as animal welfare, environmental and social responsibility, and
  - opportunities for gaining consumer, and internal supply chain customer, brand or private label equity through implied system integrity.

- The timeline of implementation of traceability and assurance protocols across global markets varies widely as a result of cultural differences, and legislation that emphasizes protection of either the consumer or industry, and with experience of past food safety incidences. Substantial differences exist in the level of consumer trust in public oversight—the strongest example may be the market responses in the EU and the US to their respective discoveries of BSE. US market participants believe government regulation and industry compliance provide good control over the safety of the food system. In contrast, consumer confidence in the ability of government to effectively regulate food safety has been shaken across western Europe by *BSE* incidences, dioxin contamination of poultry feed and contamination of bottled beverages. The EU approach to new food introductions, such as genetically modified (GM) ingredients and nutriceuticals, employs strict interpretation of the precautionary principle. In the US, once the regulatory system designates a product as safe, it is considered to be so until proven otherwise.

- Increasingly, market participants, rather than government agencies, are influencing the determination of acceptable levels of health and food safety. The leading global food retail chains establish acceptable thresholds based on their home nation's legal standards and cultural experience, as well as those pertaining to the country within which they are operating. For example, Tesco responds to the consumer market of the United Kingdom (UK), Ahold to the

Netherlands, and Carrefour to France, and to some extent transfer the associated strategies to the international markets within which they operate. Processors and manufacturers supplying these retail chains must meet the public and private standards established for procurement, even though they may differ significantly from those prevailing in the country of origin. A significant question is whether U.S. multinational food corporations are adopting this model, and if such action diminishes or retains the public's role as a third-party certifier.

- Globally, there is consensus that sound science should underlie oversight of food markets. However, increasing consumer awareness and knowledge of the limits and continual evolution of science is increasing the emotional response—rather than cognitive acceptance—to food products. This is particularly true in mature and emerging economies. It is the emotional response that activist minorities can sway, that corporate advertisers target in developing brand allegiance, and that retailers target to gain competitive advantage.

- Both the public and private sectors use dramatic events to motivate paradigm changes. If, for example, government response to a life-threatening contamination of foods is a funded mandate to implement new oversight protocols, it is unlikely to be rejected by consuming taxpayers, demonstrating an indirect willingness-to-pay. Consequently, events dramatized in the media gain political support, even if the probability of a negative event is very low. In contrast, less dramatic but more probable negative events gain less political support but are no less critical to the overall integrity of the food system.

- Public policy, by definition, must address the needs of the general population and establish acceptable minimum food safety and market facilitation guidelines. However, the mandate should also encourage and enable firm level entrepreneurial activity and innovation.

- Biosecurity concerns increase the complexity of the traceability and assurance debate. To some extent, however, biosecurity may bring clarity to the division between the objectives of prevention versus containment. Decision makers must consider the financial and technical trade-offs in assessing the probability of a negative event occurring, leading to the strategic objective of preventing the event versus rapidly containing the outcome. Prevention should be the objective if the probability is high, measurable and the technology exists to prevent the event. Containment should be the objective if the probability of an event is low, and there is no viable way to prevent it. Traceability and assurance protocols provide a paradigm for prevention, where technically and financially feasible, as well as for rapid containment.

- Even with consensus of the need to implement traceability and assurance protocols, there is still a need to address the public-private interface. Exploration is needed of ways to significantly reduce the biosecurity and life-threatening contamination without initially extending the protocols from retail to farm. This would allow time for technology innovation and costs to become more economically, as well as technically, feasible.

One size does not fit all. The greatest challenge to implementing traceability and assurance systems may be adjusting a century-old public-private partnership that has been extremely successful using a "one size fits all" paradigm.

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