

# **Terrorism, Pandemics, and Natural Disasters: Food Supply Chain Preparedness, Response, & Recovery**

## **Symposium Summary**

November 1, 2006  
University of Minnesota



# Symposium Messages

## Symposium Proceedings

Over 120 registered participants from industry, government and academia participated in the *Terrorism, Pandemics, and Natural Disasters: Food Supply Chain Preparedness, Response, and Recovery* Symposium held on November 1, 2006. The symposium was co-sponsored by **The Food Industry Center** and the **National Center for Food Protection and Defense** both from the University of Minnesota and the **Trucking Industry Program** from the Georgia Institute of Technology. Twelve invited speakers covered topics across a wide spectrum of food protection risks, from intentional terrorist attacks on the food supply to biological and pathological threats to catastrophic natural disasters.

### **FOUR KEY MESSAGES EVOLVED FROM THE SYMPOSIUM:**

- 1. Build value with REDUNDANCY & EMPLOYEE EMPOWERMENT**
- 2. Create response PLANS and PRACTICE the plans**
- 3. Constantly REVIEW and UPDATE plans – keep contacts updated and current**
- 4. COMMUNICATE, COMMUNICATE, COMMUNICATE**

### **OTHER IMPORTANT SYMPOSIUM MESSAGES:**

- Develop a Food Security/Defense Plan Immediately! **“You can’t exchange business cards during a disaster!”** (Col. Hoffman)
- Reactions in a disaster must be practiced, automatic, and known to all employees.
- It’s more than Guns, Gates, and Guards!
- Continue to establish relationships with local law enforcement and first responders.

## Speaker Summaries

THE FOLLOWING RECOMMENDATIONS CAN BE ADMINISTERED BY ORGANIZATIONS TO PREPARE THEMSELVES IN RESPONSE TO DISASTER EVENTS:

**Building a Disaster Response Team requires mandates from the CEO/COO and should include the following members:**

- Food Security Coordinator
- Human Resources Manager
- Plant/Facility Manager
- Line Worker Representation
- Switchboard Operator
- Legal Advisor/ Corporate Counsel
- Public Information Officers

**Organizations can employ the following strategies as their “First Line of Defense:”**

- Awareness – Vigilant, watchful, alert and informed
- Prevention – Safeguards, detection, averting danger
- Preparedness – Readiness, plans, conscious of danger, anticipatory plans
- Response – Comeback, reply, countermeasures
- Recovery – Normalcy, revival, back in business!



## Speaker Summaries

### **“Disaster Recovery: What We Have to Do Right”**

Jeff Noddle, Chair and CEO of SUPERVALU, Inc. - Keynote Address

- “Expect the unexpected!” Intentional, non-intentional and natural disasters happen.
- Grocery stores are usually the last stores to close and the first to re-open their doors following disaster events.
- Eighty-five percent of shoppers are “very or mostly confident that the food they buy at supermarkets is safe.” It is vital that the food industry make food safety a primary commitment - across the supply chain and across sectors.
- Changes in the industry, including new technologies, product packaging, and consumer preferences, also have implications for food safety.
- We need an “integrated disaster recovery program,” that will ensure effective communication about products’ point of origin, product recalls, and food safety measures.
- An integrated model consists of microbiological testing, enhanced sanitation and testing, mandatory HACCP plans, and more effective labeling and robust traceability procedures.
- A CALL TO ACTION: Disaster preparedness and recovery will only be effective when collaboration and communication between all stakeholders is robust.

### **Avian Influenza: Second, Third and Fourth-Order Effects**

Col. John T. Hoffman, USAR Ret., a senior research fellow at NCFPD

- Food and agriculture are the economic engines for many states.
- High-pathogenic H5N1 avian influenza that has swept through poultry populations in Asia and parts of Europe and is a significant potential threat to infect birds entering the U.S. – though it is not yet present.
- First, second, third and fourth order effects of an H5N1 poultry outbreak:

## Speaker Summaries

1<sup>st</sup> Order: Social and economic risks of any outbreak

2<sup>nd</sup> Order: Economic disaster for the poultry-processing component of the industry as well as wholesale, distribution and retail components, and their employees

3<sup>rd</sup> Order: Impacts on the financial and insurance sectors, the cross infrastructure impact such as the transportation sector

4<sup>th</sup> Order: The loss of tax revenue at the local and state levels  
The overall cost to government of a response  
The social disruption effects

- The Homeland Security Presidential Directive 7, National Infrastructure Protection Plan, and Directive 9, Defense of the Food & Agriculture Sector, both stress the importance of post-event planning and the measures necessary to “return to normal.” Pre-planning, communication, and coordination are key elements when preparing for a crisis event in the food and agriculture sectors especially one like high-path H5N1 avian influenza.

### Avian Influenza Industry Response

Steve Olson, Executive Director, Minnesota Turkey Growers Association

- Planning for a “bird flu” outbreak has made us better prepared for any disaster and reduced the chance for disaster.
- Plans are in place and have been developed and implemented to prevent, detect, and respond to a disease outbreak.

### “Improving Security and Competitiveness in the Wake of Large-Scale Disasters: A Risk Financing Perspective”

Erwann O. Michel-Kerjan, Managing Director of the Risk Management and Decision Processes Center at The Wharton School, University of Pennsylvania

- Key questions: “When the Next Big One Strikes .... Who Will Pay What?”
- There is a growing globalization of economic and social activities and growing interdependencies. Being a “just-in-time” generation means a radical change in the scale and rhythm of catastrophes and a huge increase in the values at risk.

## Speaker Summaries

- “National Security Paradox:” There is a disconnect between those charged with intelligence, military, and preparedness and those charged with financing, insurance and reinsurance.
- The insurance industry is redefining its role, particularly in light of insurability and solvency issues, higher portfolio volatility (and the consequential demand of investors for greater return on investment equity).
- Open questions: “What is the role of both the public and private sector in guaranteeing available and affordable financial coverage in large-scale catastrophes? What will happen if people and firms are not covered?”
- Private and public sectors are still very slow in recognizing we have entered this new era and are challenged by the fact that the two worlds of disaster protection, recovery, and insurance do not tend to talk to each other.
- On a positive note, as the rhythm of disasters accelerates and the scale radically increases, more and more corporate level decision makers realize that managing and financing extreme events has become a strategic challenge, resulting in budgets being reallocated toward these new priorities.

### **Risk Management Industry Response**

Joel Vander Kooi, Assistant Treasurer of Risk Management for the Kellogg Company

- Kellogg has taken these new realities to heart.
- Efforts are being made to build careful risk management plans and event preparedness into their operations and their finance and insurance budgets.

### **“Risk Communication within a Company and to the Outside World”**

Dr. Will Hueston, Professor in the College of Veterinary Medicine and the School of Public Health at the University of Minnesota.

- Too often, corporate communications are uni-directional, reactive, built on a “single spokesperson” model, and focused on the “general public;” effectiveness is typically over-estimated.

## Speaker Summaries

- Problems: fails to build relationships and trust “pre-event”; fails to involve employees and employee networks; fails to account for different information needs by a variety of audience segments; fails to acknowledge the changes involved with communication under stress; ignores multimedia opportunities beyond television.
- Risk communication defined by the USDA: “An open, two-way exchange of information and opinion about risk leading to better understanding and better risk management decisions.”
- It is important to empower key food supply chain partners to make informed decisions, to encourage constructive responses to crisis or danger, and to prevent negative behavior that hampers response or that might even cause more harm.
- The desired outcomes of risk communication are to decrease illness, injury and deaths, to build support for a response plan, and to minimize economic impact.
- “The risks that upset people are completely different than the risks that kill people (Peter Sandman).”
- Fear is an adaptive survival process; we are “hard-wired” to respond to danger. Remember, the higher the stress of the audience, the lower the ability to process multiple messages and the greater need for messages that show compassion as opposed to expertise.
- There are **ten elements of “Best Practices in Crisis & Risk Communication,”** as presented by the Risk Communication Project of NCFPD:
  - 1) Risk & crisis communication is an ongoing process
  - 2) Conduct pre-event planning
  - 3) Foster partnerships with the public
  - 4) Collaborate and coordinate with credible sources
  - 5) Meet the needs of the media and remain accessible
  - 6) Listen to the public’s concern and understand the audience
  - 7) Communicate with compassion, concern and empathy
  - 8) Demonstrate honesty, candor and openness
  - 9) Accept uncertainty & ambiguity
  - 10) Provide message of self-efficacy

## Case Studies

### **Risk Communication Industry Response**

Tom Whelan, Executive Vice President and COO of Nemer Fieger

- It is critical to have a plan in place for risk communications.
  - Transparency and trust-building are crucial elements of communicating in times of crisis and to audiences experiencing stress.
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### **THREE CASE STUDIES IN DISASTER PREPAREDNESS, RESPONSE AND RECOVERY WERE PRESENTED IN THE AFTERNOON SESSION**

#### **1. “Hurricane Preparedness and Recovery for the Quick Service Industry”**

George Hoffman, President & CEO of Restaurant Services Inc.

- Hoffman provided a description of how Burger King prepared for Hurricane Katrina (and other predictable disasters in their operating territory) and is a case study in how to execute disaster planning, response and recovery.
- Burger King discusses restaurant closing plans (6 to 8 hours in advance of impact), determines the core menu items for “post event,” and reviews and adjusts delivery schedules. They have core menu items loaded and ready to deliver as soon as a restaurant re-opens.
- A usual pre and post event restaurant sales pattern is a spike in sales before and after an event with a period of closure in between. A critical decision is when to close the restaurant in advance of a storm.

## Case Studies

- The aftermath of Katrina for Burger King in the Gulf Coast region showed that: 300 Burger King restaurants in LA/MS/AL were directly impacted, one distribution center closed indefinitely, and 20-30 Burger King restaurants have been permanently closed. However, during the year after Katrina, surviving gulf coast restaurants experienced sales increases of 15-25%.
- RSI and Burger King used the information gleaned from the Katrina event to re-evaluate and incorporate changes into its base disaster recovery plan. The “critical success factors” laid out by Hoffman at the end of his presentation were as follows:
  1. Plan the Work, Work the Plan (Execution)
  2. Communicate, Communicate, Communicate, Communicate
  3. Document best practice while memory is still fresh

### **2. “Food Defense Mitigation Countermeasures: An Industry Perspective”**

Dave Wankowski, Regulatory Affairs Manager for Kraft Foods Global, Inc.

- The main value of a food defense plan is to increase preparedness and identify prevention measures.
- Food security plans may be particularly beneficial under elevated threat conditions, especially when a particular product or brand may be under attack.
- Vulnerability assessments are a critical part of a food defense plan.
- Tools available to assess vulnerability include CARVER plus Shock - currently used by the Strategic Partnership Program Agroterrorism Initiative (SPPA) in assessing vulnerability across more than fifty identified food categories.
- Once a vulnerability assessment is completed, identifying counter-measures provides a sound strategic approach.

## Case Studies

### **3. Benchmarking Survey Funded by the National Center for Food Protection and Defense.** Study conducted by Professor David Closs, Michigan State University; Professor Alan Erera, Georgia Institute of Technology; Jean Kinsey, University of Minnesota

#### **Preliminary Results Indicate:**

#### **Manufacturing Sector**

(Companies that have adopted the most “defense” strategies and practices among the firms in the national survey have done these things):

- Educated supply chain partners regularly.
- Audited security procedures of contract manufacturers, customers, and infrequently used suppliers to determine ongoing relationships.
- Utilize metrics to monitor operations, protect brands, and track incidents across the supply chain.
- Have a senior management position dedicated to security.
- Seen performance improvements in detection and resiliency.
- Have an initial increase in costs.

#### **Retail/Wholesale/Foodservice Sectors:**

- Foodservice companies have higher overall scores on various competencies than do retail food companies.
- Strongest areas of practices are: communication management, brand protection, crisis management followed by the use of information technology for tracking product.
- Weakest areas of performance are: use of audits and controls and communication with suppliers.

## Case Studies

### Transportation Sector:

- Companies are most competent in: credentialing drivers, record keeping consistent with FDA biosecurity regulations, inspecting loaded trailers for tampering, information systems, and incident response plans.
- Least competent to date in: automated intrusion detection, use of RFID for tracking, and non-intrusive tracking technology

Data is still being collected by researchers in this project; results could change with additional companies added to the database.

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With the support of the University of Minnesota Extension Service, the symposium was filmed and will be available in a CDR format. Copies are available from The Food Industry Center (612-625-7019) or the National Center for Food Protection and Defense (612-624-2164). A copy of the symposium agenda and speaker biographies can be found on The Food Industry Center Web site at [http://foodindustrycenter.umn.edu/Past\\_TFIC\\_Workshops.html](http://foodindustrycenter.umn.edu/Past_TFIC_Workshops.html).

### Symposium Co-Sponsors:

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