

Partnerships to Ensure Transport of Eggs and Egg Products

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Background

- Egg production facilities limited storage capacity
- Past intervention = stop egg/egg product movement during High Pathogenicity Avian Influenza (HPAI)
- Iowa #1 in U.S. egg production; over 14 billion eggs per year; twice # layers compared to #2
- Iowa layers consume 57 M bushels corn; 28.5 M bushels soybeans per year
- Result of interrupted transport = U.S. egg and egg product shortage

Significance of HPAI

- H5N1 remains a threat to the poultry industry, public health, and food security in the U.S.
- Can enter U.S. via smuggled birds or migratory waterfowl
- Sources = contaminated manure, respiratory secretions, birds, eggs, packing materials, equipment, clothing, vehicles
- New information updates the National HPAI Response Plan



Egg Transport Needs During HPAI

- Comprehensive preparedness and response plan for federal and state egg transport
- Market continuity via facilitated disease free egg movement
- Strategy for rapid decision, response, and recovery
- New research in HPAI transmission, risk, and management provides new strategies
- Real time data acquisition for decisions via a dashboard system

Egg Transport Partnerships During HPAI

- Egg producers/industry: United Egg Producers (UEP)
- Iowa Department of Agriculture and Land Stewardship (IDALS)
- DHS Centers: Texas A&M University National Center for Foreign Animal and Zoonotic Disease Defense (FAZD); Kansas State University Center of Excellence for Emerging and Zoonotic Animal Diseases (CEEZAD)
- University Centers: Iowa State University Center for Food Security and Public Health (CFSPH); U Minn Center for Animal Health and Food Safety (CAHFS)
- USDA-APHIS-VS; CEAH, NCAHEM

Egg Transport Support Goals

- Maintain business continuity
- Regionalization
- Compartmentalization
- International trade
- Biosecurity
- National HPAI Response Plan

The Secure Egg Supply (SES) Plan

- Multi-disciplinary plan: public, private, government
- Recommendations for rapid decisions during HPAI to provide or deny permits to move eggs/egg products
- Federal and State Transport (FAST) Eggs Plan = voluntary “pre-outbreak” preparedness to reduce time needed to receive a permit to transport eggs/egg products

FAST Eggs Plan Components

- Voluntary enrollment requires
 - Biosecurity standards
 - Premises registration including GPS location
 - Epidemiology data to ID potential exposures
 - Active surveillance by Real Time PCR testingTrainer/Auditor employed by the State
Coordinator collects information and conducts training; assign participant numbers
Iowa Plan now operational

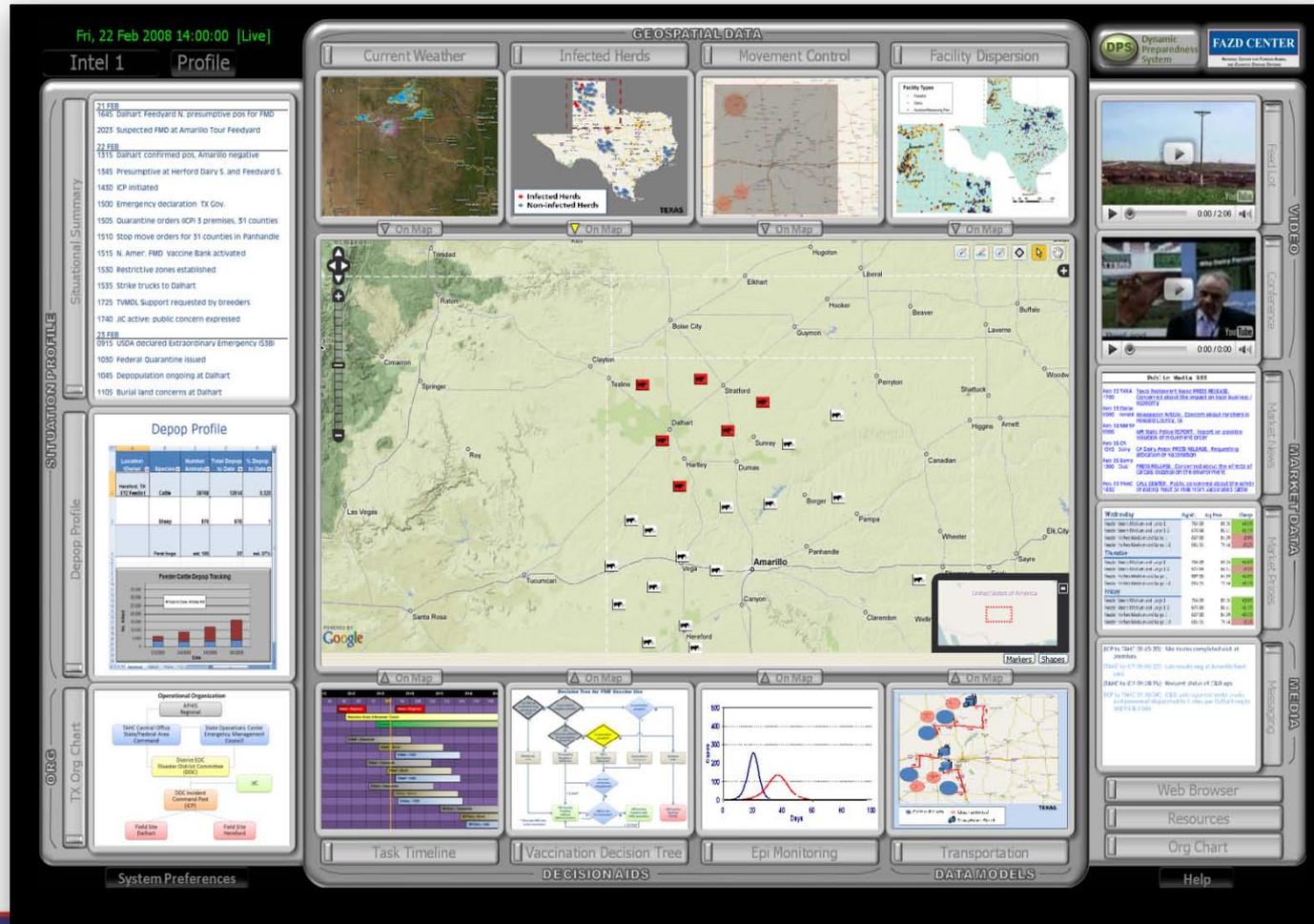
Dashboard Role in FAST Eggs Plan

- Integrated multi-purpose system for emergency managers during an animal disease outbreak
- Integrative display systems and visual analytics methodologies
- Integrate data into a user-defined system
- Improve communication among responders
- Enrich incident command capabilities
- Use as a tabletop or field operational training tool

Dashboard Data in FAST Eggs Plan

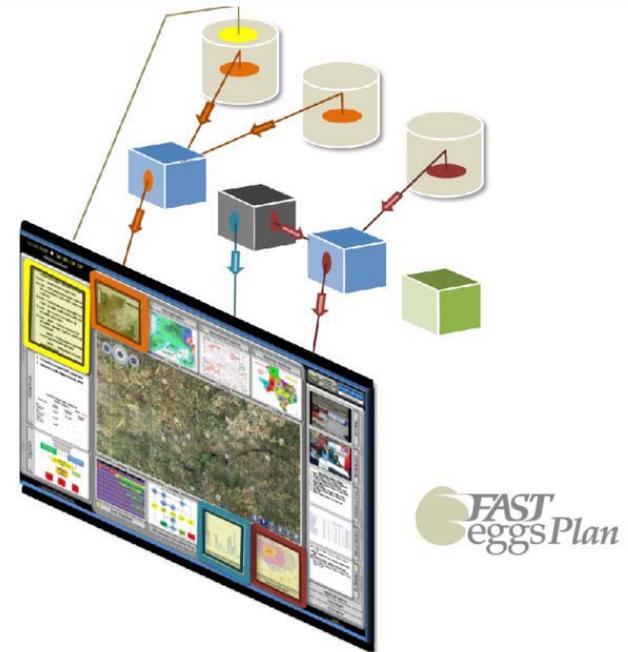
- Display information maps and data detail for state and federal officials decisions during emergency response
- Location egg laying premises; processing facilities
- Routes of transport
- Location of infected premises
- Control zone overlay
- Weather conditions, other information

Information Dashboard Framework (example)



Secure Egg Supply and the FAZD Center Decision Support System (DSS)

- Create and Demonstrate a Secure Egg Supply 'Component' to the FAZD Center Decision Support System (DSS)
 - Dr. J Wall, Dr. C Andreasen and Dr. J Roth
 - Cross cutting (IAS and EOS)
 - CEEZAD, FAZD and CFSPH
- Show proof of concept of the SES Plan utilizing the dashboard technology
 - Facilitate a rapid decision making process for movement permits of products,
 - Determining infected and non-infected premises, and providing a real-time local, regional and state decision support tool for education and training



The Future of Business/Transport Continuity

- Secure Egg Supply, Secure Turkey Supply – in the event of HPAI
- Secure Milk Supply, Secure Pork Supply - in the event of Foot and Mouth Disease (FMD)
- Business continuity plans require Incident Command System to have rapid access to premises specific information
- Will be accomplished by the FAZD Dashboard

EOS: Iowa Agriculture Emergency Response System

Collaboration: Center for Food Security and Public Health, FAZD Center, Iowa Department of Agriculture and Land Stewardship, Texas Engineering Extension Services, USDA and CEEZAD.

Purpose:

- Apply FAZD Center's information dashboard technology to improve rapid decision making in event of an animal emergency involving Iowa
- Provide a means to issue permits for animal and animal product movement

Future Plans: Iowa Agriculture Emergency Response System – secure supplies of eggs, milk, pork and turkey.



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- Iowa State University Center for Food Security and Public Health (CFSPH)
- Iowa Department of Agriculture and Land Stewardship (IDALS)
- Egg Industry Working Group
- United States Department of Agriculture Animal and Plant Health Inspection Service Veterinary Services (USDA-APHIS-VS); Centers for Epidemiology and Animal Health (CEAH)
- National Center for Animal Health Emergency Management (NCAHEM)
- University of Minnesota Center for Animal Health and Food Safety (CAHFS)