

Early detection/rapid response to foreign animal and zoonotic diseases through a County Animal Security and Health Network

Kelly J. Matthews, Dr. Shannon H. Degenhart, and Dr. Tom A. Vestal

Texas AgriLife Extension Service, Texas A&M University, The National Center for Foreign Animal and Zoonotic Disease Defense; College Station, Texas 77843

Introduction

- Homeland Security Presidential Directive/HSPD-9: Defense of United States Agriculture and Food:
 - Established agriculture a critical infrastructure and a national policy to defend the agriculture and food system against terrorist attacks, major disasters, and other emergencies (Bush, 2004)
- Early detection and rapid reporting of foreign animal and zoonotic diseases (FAZD) is essential for agricultural infrastructure protection
 - Individual livestock owners are the first line of defense
 - Potential to prevent tremendous economic loss to livestock industries and communities (Faries and Dement, 2006, p. 1 - 2).
- 2002 - 2003 Exotic Newcastle Disease (END):
 - Critically impacted the California poultry industry
 - Existed in the backyard flocks of underserved and non-commercial livestock and poultry owners (UNLPO) for 6 months prior to detection
 - Depopulation of over 2 million birds, 13 commercial flocks, and 1,900 private premises within 5 months of detection
 - Early detection and reporting by UNLPO could have significantly mitigated impact on agriculture infrastructure
- Underserved and non-commercial livestock and poultry owners were identified as a vital but difficult audience to reach for the protection of agricultural infrastructure.
- A 2006 FAZD Center needs assessment:
 - Identified feed retailers as the most common means of communicating animal disease-related information to UNLPO
 - Development of a network concept: the County Animal Security & Health Network (CASHN)
 - Utilizes feed retailers to disseminate animal disease-related information to UNLPO customers through existing Cooperative Extension Systems

Purpose and Objectives

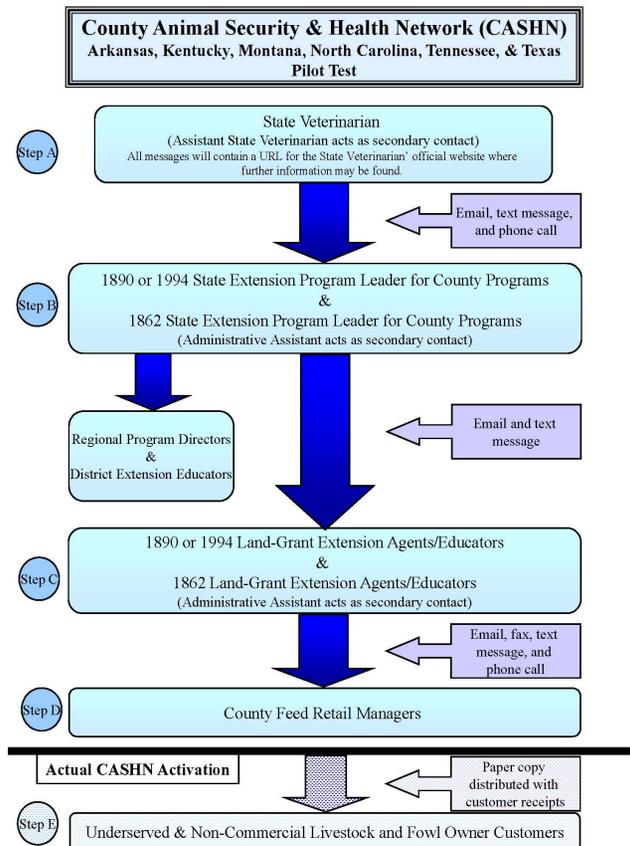
- The purpose of this project was to identify the overall potential of a County Animal Security and Health Network (CASHN) for reaching UNLPO in a timely manner through feed retailers.
- The objectives used to fulfill the purpose of this project were:
 1. Measure the speed and efficiency of the CASHN alert system.
 2. Identify feed retailer demographics such as: number of non-commercial customers, average number of weekly costumers, and percentage of costumers buying feed for various species.
 3. Identify the feed retailer's normal means of gaining and verifying animal disease-related information.
 4. Identify feed retailer's perception of the usefulness of the CASHN concept.

FAZD CENTER

NATIONAL CENTER FOR FOREIGN ANIMAL AND ZOOONOTIC DISEASE DEFENSE



CASHN Concept



- **Step A:** State veterinarian activates CASHN by contacting State Extension Program Leaders (Primary Points of Contact)
- **Step B:** State Extension Program Leaders forward the alerts the 12 participating Extension Educators
- **Step C:** Extension educators forward the alerts to the participating feed retail managers in their county
- **Step D (CASHN Pilot Test):** Feed retail managers record the date and time they received the alerts
- **Step D (Actual Event):** Feed retail managers distribute the information and/or alerts to their customers
- **Step E:** Non-commercial livestock and poultry owner customers receive alerts and educational materials

CASHN Pilot Test Methodology

- **Minority serving land-grant institution (MSI) (1890 and 1994) Cooperative Extension Programs with existing outreach capacity for underserved audiences were selected in six states (AR, KY, MT, NC, TN, and TX) to lead the CASHN Pilot Test in 12 counties in each state.**
- Participants from each of the pilot test states attend a CASHN Workshop in Dallas, TX, where they are trained on the CASHN concept, timeline of the pilot test, methods of data collection, and duties to perform in order to accomplish the objectives of the pilot test.
- Test alert messages are initiated in each participating state once each month of the CASHN Pilot Test (January, February, March).
- County Extension educators conduct at least one educational seminar (hosted by a feed retailer) targeting 25 UNLPO to gather perceptions of the CASHN concept.
- State Veterinarians, Primary Points of Contact, and County Extension educators provide summative evaluations of the CASHN concept, usefulness, feasibility, and effectiveness.

CASHN October 2007 - May 2008 Project Plan

Activity	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
P-1 CASHN County Extension Educator training								
P-2 Identify and gain feed retail manager commitments								
P-2 Conduct feed retailer pre-CASHN survey w/ historical info								
P-2 Extension Educators conduct CASHN educational seminar								
P-3 Deliver 1 st alert scenario								
P-3 CASHN reporting on date and time alerts received/sent								
P-3 Adjust CASHN alert system as needed								
P-3 Deliver 2 nd alert scenario								
P-3 CASHN reporting on date and time alerts received/sent								
P-3 Adjust CASHN alert system as needed								
P-3 Deliver 3 rd and final alert scenario								
P-3 CASHN reporting on date and time alerts received/sent								
P-4 Participant evaluation of CASHN								
P-4 Analyze data								
P-4 Write evaluation summary and disseminate results								

Recommendations

- The results of the CASHN Pilot Test will guide the revision of the CASHN Model for state-wide adoption in the original six CASHN Pilot Test states plus an additional three states.
- Successful state-wide implementation of CASHN will facilitate the adoption of a nationwide network of fostered relationships with feed retailer managers by county-based Cooperative Extension educators in all 3,066 U.S. counties.

Acknowledgements

This project was funded through the Foreign Animal and Zoonotic Disease Defense Center of Excellence by a grant from the Department of Homeland Security, Science and Technology Directorate, Office of University Programs

Literature Cited

Faries, F. C., Jr, & Dement, A. I. (2006). *Foreign and emerging animal disease handbook: Train-the-trainers curriculum*. College Station, TX: Texas A&M University System.

Bush, G. W. (2004). *Homeland security presidential directive/HSPD-9: Defense of united states agriculture and food*, 2004. Retrieved February 21, 2008 from <http://www.whitehouse.gov/news/releases/2004/02/20040203-2.html>

For More Information

For more information on the National Center for Foreign Animal and Zoonotic Disease Defense visit our website at <http://fazd.tamu.edu/>