

Statement of
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Before the
House Agriculture Committee
Livestock, Dairy, and Poultry Subcommittee

And the
House Committee on Homeland Security
Emerging Threats, Cybersecurity, Science and Technology Subcommittee

Regarding
A National Animal Identification System and the Associated Homeland Security
Implications

On
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Good afternoon, Chairman Scott, Chairwoman Clarke, Ranking Members Neugebauer and Lungren, and Members of the Subcommittees. Thank you for inviting me to testify before your Subcommittees today to discuss the homeland security implications of catastrophic animal disease outbreaks and how a national animal identification system could mitigate the effects of such outbreaks.

I. Introduction

My name is Tom McGinn and I serve as the Chief Veterinarian for the Department of Homeland Security (DHS). As chief veterinarian, I am responsible for advising the Secretary of Homeland Security, the Chief Medical Officer (CMO), and Departmental officials on food, agriculture, and veterinary issues. My office, which sits within the Office of Health Affairs (OHA), works collaboratively across the interagency and with State, local, tribal and private sector partners to further DHS's mission to protect the Nation's critical infrastructure relating to food, agriculture, and veterinary resources.

Prior to my work at DHS/OHA, I served as the Assistant State Veterinarian and Director of Emergency Programs for North Carolina. I led efforts to establish a State-wide animal identification/information system that was used to provide critical disease control information in the face of catastrophic incidents.

II. Why is DHS at the table to discuss a national animal identification system?

When most Americans think about threats to homeland security, they think of nuclear explosions, bombings, or similar threats. Few would point to animal disease outbreak as a homeland security threat.

Those of us in the agricultural field know better. The effects of a major animal disease outbreak, such as Foot and Mouth Disease (FMD), would extend well beyond the Nation's farm economy. A disease outbreak could halt domestic commerce, hinder international trade, and threaten the Nation's food supply. It would have cascading effects and eventually impact every sector of our society, from food production to our financial system. Today, we are facing the threat of a novel 2009-H1N1 influenza outbreak. It has already begun to impact U.S. pork trade, even though there is currently no evidence to suggest that this virus has been found in pork in the United States, and consuming pork has not been associated with human illness caused by this virus.

This is why DHS is at the table – animal disease outbreak can be a far-reaching homeland security issue that requires DHS coordination to ensure that the full resources of the Federal government are brought to bear to tackle this challenge.

III. DHS's role in agro-security and food safety

Protecting the Nation's food, agriculture, human and animal health in the face of all hazards is a central tenet of the DHS mission. DHS does not duplicate or replace the efforts of other Federal agencies that focus on food and agricultural security and defense

on a daily basis. Rather, DHS recognizes that catastrophic incidents affect the fabric of the Nation, all parts of our economy, and international relations. DHS works to mitigate the consequences associated with catastrophic incidents and coordinates and integrates Federal assets to prevent, protect against, prepare for, respond to, and recover from incidents.

Homeland Security Presidential Directive 9: Defense of United States Agriculture and Food (HSPD-9), establishes DHS as the coordinator of all Federal efforts to protect agriculture and food critical infrastructure and key resources. Limiting the spread of disease by restricting the movement of infected and exposed animals is essential to mitigating the impacts of a disease outbreak. DHS, through OHA, continues to work with other agencies to trace, monitor, and track outbreaks; a robust animal identification system would facilitate and support multiple aspects of animal health emergency preparedness and response serving as a tool to assist planners, responders, and modelers.

IV. The threat and why a system is necessary

The Federal government has developed a number of exercises and scenarios to understand and mitigate the consequences that a catastrophic animal disease outbreak would have on the Nation's critical infrastructure and key resources. In 2003, the Crimson Sky exercise was held to examine the impacts of FMD and how it could potentially spread through the domestic livestock population. Participants included Federal, State, local, tribal and private sector stakeholders. The exercise demonstrated that an intentional introduction of FMD could rapidly infect livestock in 30 States in a

relatively short time-frame. Early in an incident, the ability to recognize the total impact, whether it is a local event or a catastrophic incident, is critical to mitigating effects. During a disease outbreak in the animal population, food and agriculture products will have to continue to enter the marketplace to ensure that the Nation has an adequate food supply. A complete database with the capability to identify and track the movement of the infected and exposed animal population will support decision-makers' efforts to respond, limit the spread of the disease, and ensure unaffected animals remain isolated from the infected and exposed animal population.

V. National Animal Identification System

In 2004, USDA announced it would begin the implementation of an animal identification system, referred to as the National Animal Identification System (NAIS). We applaud USDA, as well as State, local, tribal, and private sector entities, for their efforts to date to implement NAIS. USDA has developed the infrastructure to replace the multiple disparate systems used over the years and put in place data standards that are imperative to achieve compatibility of information systems across State and Federal databases. USDA has estimated that of the 1.4 million livestock farms in the Nation, over 510,000 animal premises have been registered in NAIS. Given this level of participation, if FMD was introduced into the domestic livestock population today, we could use NAIS to obtain situational awareness but we would be limited in determining which animals may have been exposed or infected with the disease, potentially limiting our ability to contain it. From DHS's perspective, NAIS will be helpful during incidents supporting multiple aspects of animal health emergency preparedness and response.

VI. What DHS needs from an animal identification system/homeland security benefits of an animal identification system

The 15 National Planning Scenarios (NPS) are tools that provide the Nation guidance in planning for terrorist attacks, natural disasters, and other man-made events (FMD is one of the 15 NPS). Past experiences have illustrated that a single failure during a disaster has vast consequences that may turn an incident into a catastrophe. During a disease incident that affects the domestic livestock population, a national animal identification system would be an extremely helpful tool to trace the spread of the incident through the animal population. During an outbreak, the inability to rapidly identify infected and non-infected animals, their premises, and the animals they came into contact with during transport could become a single point of failure.

During Hurricane Katrina in 2005, the breaking of the levees was the single point of failure. Their failure had significant cascading consequences to all response and recovery efforts. The inability to rapidly and completely identify infected and exposed animals, their premises, where they move to and from, and what animals they come into contact with could become a single point of failure in controlling an animal disease outbreak. This inability could also result in a number of other failures such as: the inability to adequately prepare, mitigate, surge epidemiology and lab needs, assess risk, conduct ongoing permitting and transportation of the negative herd, countermeasure management, disposal, and decontamination efforts.

An animal identification system will support five critical emergency management functions including: adequate preparedness, rapid assessment, effective planning, immediate emergency management surge, and viable recovery.

Adequate Preparedness: There are risk mitigating resources that are in place to protect homes and businesses that are determined by the size and location of these critical assets. An effective animal identification system will provide similar risk mitigating strategies to adequately plan, build, and maintain an animal health system that has response and lab capability sized to protect critical assets. Developing these risk mitigating strategies is dependent on knowing where critical assets are located and an effective national animal identification system would provide such information.

Rapid Assessment: Early on in a FMD incident, the ability to recognize the number of States, herds, animals and meat production and transportation facilities that are affected by the incident is essential to ensure continued surveillance and operational response. This initial assessment must be accurate and quick, since responders will determine emergency management needs, such as logistics, operations, financial requirements, and administration. The rapid assessment is also used to develop the communication and containment strategy that is essential to an effective outcome. Attribution is a key component of the rapid assessment. In an incident that is intentional, and especially one that can involve repeated attacks (reload), attribution is an essential component of the forensic epidemiology needed to protect assets, reduce national fear, and identify the party responsible for an intentional contamination or infection. An effective national

animal identification system will enhance our ability to effectively respond to the homeland security implications of such an event.

Effective Planning: The ability to test an animal or a farm to determine its disease status, return these results to the producer, analyze the results, and communicate risk reducing strategies during a animal disease incident is critical to the effective containment of the incident. Premises information layered with test information, flooding information, soil information, and access to resources are all examples of how a near real-time information system supports planning and operations efforts. How much vaccine is needed, where to place control zones and monitor movements, and how many and what types of human and equipment resources are needed can all be determined quickly and at a speed that provides emergency management the ability to provide support to contain the spread of an animal disease.

Immediate Emergency Management Surge: The ability to rapidly mobilize resources during a biological incident requires full situational knowledge. Such information can come from a national animal identification system. The need to identify the impact zone and all components therein determines the pace at which an animal disease will spread. How much, what type and where epidemiology, lab testing, vaccination, biological security enhancement, decontamination and disposal will be needed is determined by knowing details of the magnitude of the disease outbreak. The required human resources and concurrent logistical support for permitting, disease quarantine boundary controls etc. are essential to an effective planning and mobilization response. The ability to

cooperatively utilize resources between agencies and the private sector depends on being able to provide clear guidance as to where the premises are and where the animals have moved during an outbreak.

Viability Recovery: The ability to identify infected animals in a system can immediately determine the disease status of a premise and provide information on the risk associated with movement of animals. Once the location of the infected and exposed population is identified, the movement of unexposed animals can continue. Identifying the location of the outbreak will also rapidly determine at-risk premises and steps required to reduce potential exposure limiting the spread of the disease. Facilitating the movement of the negative herd(s) through rapid assessment of their status and the combined disease status of the area from which they originate greatly effects their ability to move animals in commerce.

The five detailed critical emergency management functions are all important for an adequate and proper response during a disease outbreak in the animal population. There are a number of significant benefits to homeland security and such information could be integrated with other data to provide decision makers with a complete biological picture before, during, and after incidents. The Office of Health Affairs's National Biosurveillance Integration Center (NBIC) provides enhanced situational awareness to senior leaders and decision makers regarding natural disease outbreaks, accidental or intentional use of biological agents, and emergent biohazards that impact the bio-related domains of human health, animal, plant, food and water or that impact the infrastructure

or key assets of the United States. NBIC integrates and analyzes information from over 350 open source and classified information feeds as well as information from twelve (12) participating Federal agencies (including agencies within DHS) to provide senior leaders and decision makers with an integrated biosurveillance common operating picture (BCOP). The 12 Federal agencies that participate in NBIC include the Departments of Agriculture, Health and Human Services, State, Interior, Defense, Commerce, Transportation, Justice, Veterans Affairs, Homeland Security, the United States Postal Service, and the Environmental Protection Agency. In coordination with our Federal partners, NBIC analysts use the information to complete a daily Situational Report. This report is provided to all participating agencies. USDA has been a formal NBIC participant since February 2007 and is in the process of completing an Interagency Agreement with the Department to provide a full-time, on-site detailee to facilitate interagency coordination as well as development of NBIC biosurveillance integrative analytical capabilities. In the future, we expect that USDA will provide biosurveillance data to DHS during incidents that affect the animal population to ensure all appropriate biological data is presented in the BCOP.

VII. Challenges

Implementing an effective national animal identification system is an important endeavor, but comes with many challenges. The first issue is the need to promote significant compliance and participation in an animal identification system. At the current participation level (which is approximately 30 percent), it could take months to identify and locate exposed animals, increasing the likely spread of the disease.

The second issue that should be addressed is what information will be collected and how information will be protected. Knowing the location and type of animals in a given area and supporting a tracing capability will help determine the proper response to an outbreak. Once this information is collected in databases, protections must be in place to ensure that the data will be used for the intended purpose. We support USDA's efforts to address the concerns of private sector stakeholders.

A third issue that should be addressed is what information is necessary to provide tracing capabilities to State and Federal animal health officials. During an outbreak, aggregate data would be used at all levels of government to inform the decisions to limit spread and contamination. The ability to trace a disease to its origin will enable decision-makers with the capability to determine the number of animals that could possibly be infected or exposed in a given area. This information would be critical during a disease outbreak in the animal population, such as FMD, due to the speed of contamination. A fast and accurate response will likely reduce the impact of the outbreak and keep it from becoming a catastrophic event. NAIS is voluntary and has a limited number of participants. Without a more comprehensive and complete system in place, we do not have adequate tracing capabilities.

VIII: DHS supports USDA's outreach to stakeholders

We support USDA's commitment to creating an animal identification system that incorporates and addresses State, local, tribal, and private sector stakeholders' needs and

concerns. The development of an effective animal identification system must be a partnership between all users and participants. Some States have implemented their own identification systems. Working with the States that have adopted or mandated more stringent requirements for animal identification and incorporating collected data, to the greatest extent possible, into a national animal identification system is critical to having a complete and comprehensive system in place as soon as possible.

IX: Conclusion

Based on the scenarios I have presented in this testimony, contagious disease can spread throughout the animal population quickly. Determining and identifying the location and type of animals in a given area and having an adequate tracing capability serve as the mechanism to limit the spread of a contagious disease. From a homeland security perspective, it is beneficial to have the highest participation rate possible in an identification system and any method used to encourage enrollment and participation would be beneficial. Thank you for the opportunity to discuss agriculture issues with you today. I would be happy to answer any questions that you may have.