

STATEMENT FOR THE RECORD

of

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Regarding a Hearing Entitled

“Review of the National Animal Identification System”

**Before the
U.S. House of Representatives**

**Committee on Agriculture’s Subcommittee on Livestock, Dairy and Poultry
and Homeland Security’s Subcommittee on Emerging Threats, Cybersecurity,
and Science and Technology**

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INTRODUCTION

Good afternoon, Chairwoman Clarke and Ranking Member Lungren, and distinguished members of the Subcommittees. I am pleased to discuss with you the importance of a comprehensive national, food-animal identification and recording system (NAIS)¹ as it relates to food and agriculture safety and defense. I intend to limit my presentation to how the NAIS will be an essential part of enhancing our nation's security. I will specifically discuss how a comprehensive food-animal identification system can reduce the risk of major losses to our nation in confronting a major incident caused by either a natural disaster (e.g., floods, earthquakes, fires) or by an intentionally-caused event (e.g., deliberately executed harmful act such as a terrorist attack on a food system). To the extent possible in my brief presentation, I will make the case that a NAIS will greatly assist us in accomplishing our task of reducing harm from any hazard, i.e., NAIS should be a part of our nation's "all hazards" approach to preparedness. While I view them as being important, I do not intend to discuss the technical aspects of animal identification and recording systems, the NAIS' foreseeable benefits to food safety, or the potential economic benefits of the system to food-animal producers, processors, food retailers and ultimately consumers.

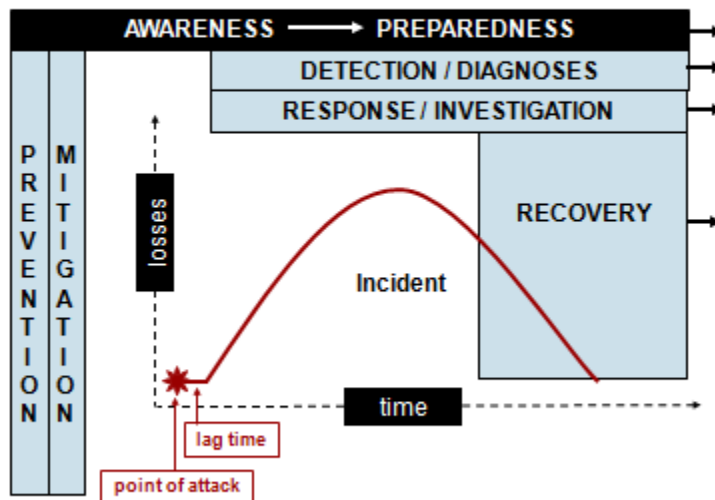
THE NEED FOR NAIS TO ENHANCE NATIONAL SECURITY

In 2004, the Western Institute for Food Safety and Security (WIFSS), University of California Davis, was awarded a Competitive Grant from the U.S. Department of Homeland Security (DHS) to prepare and deliver a curriculum to communities and food industries, nationwide, to enhance preparedness for agroterrorism or other major food-systems disasters. Until January 2009, I was the principal investigator of this grant and subsequent grants funded annually from

¹ NAIS denotes National Animal Identification System

DHS. Over the past nearly five years, the Institute has delivered all or portions of the six-course curriculum in over 250 sites in 34 states. This experience has provided us with insights in the widely-diverse vulnerability of our food systems in different communities, in various industry segments and in the production of different food types. The vulnerability is made all the more challenging with the rapidly growing globalization of food systems. Our food supply and our food-producers' markets are increasingly dependent upon a functioning, secure, international food production and marketing systems. These global systems are complex and change rapidly making food safety, defense and security extraordinarily complicated. Certainly, a reliable national animal identification system has very important implications for enhancing our export market of food animals and food-animal products. It is conceivable that terrorists could attach our domestic food systems with the goal of disrupting our foreign markets. To the extent that we can document that our animals are free of and have not been exposed to important infectious diseases or zoonotic agents, we will be able to better assure and stabilize our foreign markets. At the same time, if we have a functional NAIS, the United States is in a strong position to expect equivalency from our foreign trading partners for imported animals or food products. At this time, it is important that we acknowledge the expanding and complex global food systems and their implications on how we introduce measures to enhance the safety and security of our domestic food systems. The challenge of tracking the spread of H1NI-virus infections/disease (*swine flu*) illustrates the difficulty of monitoring and tracing diseases around the world in a timely manner. However today, I wish to focus primarily on the domestic food industry and its need for a NAIS to enhance food defense/security and animal and human health (i.e., forestalling and managing food-borne diseases, animal diseases and zoonotic diseases would benefit from a NAIS).

The Steps to Preparedness



Preparedness for any major hazard (threat) to the food systems has two overarching aims of *preventing the event from causing harm* to the food supply (safety of all food types or preventing economic disruption in the food/agricultural sectors and beyond) and if the event breaches our defenses, then having measures to *mitigate the harm* (i.e., lessen the losses). Fundamental to preparedness are the following principles; a. awareness (understanding the threats), b. systems for *rapid* detection/diagnosis, c. *rapid*, directed response to the event, and d. measures planned and *rapidly* implemented for recovery from all losses (including recovery of all systems involved in food production). All of these principles of preparedness are enhanced by a well documented, real-time, tracking system (e.g., NAIS). I have highlighted *rapid* in my text because early detection, response and recovery are essential to forestalling major losses due to an event. When communities, states and industries undertake planning and implementing preparedness measures for food and agriculture security, almost without exception they are

frustrated by the lack of understanding of how different parts of their food systems operate, i.e., specifically, what is the interdependence of the different segments in the system and how does each segment work. This same lack of specific knowledge of inter-segment connectivity is, in my judgment, the most important reason for failure of food-borne disease and animal-disease investigations. In brief, it is the inability to trace a specific food-item (or animal) upstream or downstream through the food continuum (i.e., the steps from production unit to consumer) that too often frustrates investigation of causes of food contamination or animal diseases. These failures make rapid and precise intervention to prevent further illness in humans or diseases in animals impossible and leaves a great deal of uncertainty on what measures can be taken to prevent similar disasters in the future. While plausible hypotheses emerged on the cause of the 2006 E. coli contamination of lettuce/spinach originating in California, the precise cause of the contamination is not yet known due, in large measure, to incomplete records on the source and handling of product by producers, transporters and processors. Rapid and specific response by public health officials was not possible because they did not know early in the disease outbreak where the contaminated product originated and where it had been shipped across the nation. This is relevant to this discussion of animal identification because it illustrates the need for food source identification and monitoring throughout the production/processing systems, and further, food animals and wildlife have been implicated (not proven) in the 2006 leafy-green produce contamination. This is not unique to spinach-contamination in California; collecting needed product-data in nearly every food-borne or animal disease outbreak is slow and arduous because of poor product-tracking data. Recent reminders are the tomato, peanut butter and pet food contamination incidents. More specific to animal disease, investigators are still unable to specifically and unequivocally trace the origin and spread of *food and mouth disease* in the 2001

outbreak in the United Kingdom. Recent animal disease investigations in this country (e.g., 2002 Exotic Newcastle Disease in Western U.S and Bovine Spongiform Encephalopathy [BSE or Mad Cow Disease] in Washington State and Texas) have been hampered by lack of a functional NAIS. These incidents are all difficult to investigate thoroughly and arrive at an unequivocal epidemiological conclusion without the tracking data envisioned for the NIAS.

It is important to understand that a terrorist bent on causing devastating harm to this nation could devise a plan of introduction and spread of an animal or a zoonotic disease that would be primarily unnoticeable, unfathomably merciless, genuinely resourceful and far more difficult to contain than our usual “naturally occurring” food-borne or animal disease outbreaks. The DHS, U.S. Department of Agriculture (USDA) and others have developed scenarios to illustrate the potential harm of an agroterrorism attack. In my judgment, we could add an extremely powerful tool to our armament against agroterrorism by enhancing our NAIS and other food-tracking systems, which among other things would increase our ability for early detection of these diseases and lead to our pinpointing sooner the location(s) of introduction (there may be multiple points of introduction by terrorists). The widespread, rapid and seemingly random (unpredictable) movement of livestock was driven home to us when we attempted to trace the movement of cull dairy cows from California dairies.² Briefly, we found these cows in markets and feed-yards across the nation within days and weeks of leaving the dairies. In most instances, we were not able to trace specifically how they were moved to their new destination. More often than not within days, we lost track of animals identified on California dairies as they moved somewhere across the nation.

² 1999 Study conducted by six-university consortium led by the University of California, Davis.

The variation in our nation's livestock rearing environments and the movement of these livestock and wildlife, nationwide, provide a challenging environment for disease control in response to a wide spectrum of potential terrorism incidents. In addition to the potential food shortages (complicated by public uncertainty of food safety), human and animal illnesses, and death associated with these events, the potential for economic disruption and loss could be extraordinarily large and long-lasting. That said, while NAIS is not the only remedy, it is a much needed tool to enhance our animal disease and zoonotic disease prevention and control, and it could go a long way in preventing or mitigating major losses.

Thank you.

FOLLOW-UP CONTACT INFORMATION

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