



Allen D. Leman Swine Conference



Volume 39
2012

Published by: Veterinary Continuing Education

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Secure Pork Supply: Planning for business continuity in an FAD outbreak

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According to the USDA Quarterly Hog and Pigs report,¹ as of March 1, 2012, the number of pigs on production sites in the United States (U.S.) was 64.9 million head. Of these approximately 65 million head, hundreds of thousands of pigs are being moved daily in the U.S. If a foreign animal disease (FAD) were introduced into the U.S., immediate animal quarantines and product movement restrictions would result. With very little, if any, excess capacity built into most swine production systems, the resulting stop movement affecting animal flow could result in overcrowding conditions and lead to serious animal welfare and animal health issues. Efficient and timely movement of pigs is important for animal welfare and continuity of business for individual operations and the swine industry.

A Secure Pork Supply (SPS) plan to maintain business continuity for pork producers and processors during an FAD outbreak, and to provide a safe, continuous supply of pork for consumers is critical. More specifically, the swine industry must develop procedures that pork producers, processors, and Federal and State agencies all agree are feasible and will allow the safe movement of animals with no evidence of disease from swine operations in a FAD control zone to a pork processing plant or to other sites to accommodate different stages of production. Having an SPS plan in place prior to an FAD outbreak will enhance coordination and communication between all parties, result in fewer unmet expectations, speed up a successful FAD response, and support continuity of operations for pork producers. FADs to be addressed in the SPS plan include the following: foot and mouth disease (FMD), classical swine fever (CSF), swine vesicular disease (SVD), and African swine fever (ASF).

Developing the SPS plan

Through funding from USDA-APHIS National Center for Animal Health Emergency Management (NCAHEM), the Center for Food Security and Public Health at Iowa State University and the Center for Animal Health and Food Safety at the University of Minnesota are coordinating the development of the SPS plan. The Planning Committee includes producers, practitioners, Federal and State animal health officials, and individuals from academia and industry. Following the initial meeting of the Planning

Committee in fall of 2011, seven working groups were formed. The SPS working groups include the following: Biosecurity, Surveillance, Monitored Premises/Surveyed Premises/Compartmentalization, Data Collection and Management, Risk Assessment, Communications, and Outbreak Occurs Tomorrow. The working groups have been making progress addressing the charge given to them by the Planning Committee.

Biosecurity working group

The biosecurity working group is developing biosecurity performance standards for all phases of swine production, transportation, and processing. Producers will have the opportunity to implement these biosecurity guidelines prior to an outbreak or when the outbreak occurs in order to be designated as a Monitored Premises eligible to move animals (may depend on the phase and type of outbreak and the premises designation during the outbreak – see section addressing Phases and Types of an FMD Outbreak Document below). As the Compartmentalization working group is assisting swine production systems to see if they can meet the requirements to become a compartment, the biosecurity working group will be developing the biosecurity standards which the systems will implement to be eligible for compartmentalization according to OIE guidelines.

Surveillance working group

The surveillance working group is developing recommendations for Comprehensive Integrated Swine Surveillance prior to an FAD outbreak that meets the industry's needs before, during, and after an FAD outbreak. These recommendations need to fulfill the requirements of scientific rigor while simultaneously, accommodating the structure and practices of contemporary U.S. pork production.

Monitored premises and compartmentalization working group

Working in concert with the biosecurity and surveillance working groups, this working group will develop criteria to receive and maintain Monitored Premises status during an FAD outbreak as well as develop criteria for swine production systems to be eligible for compartmentalization

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according to OIE guidelines. Currently, two production systems are evaluating the possibility of pursuing compartmentalization. Our goal is to work through the process of compartmentalization with a production system to determine what types of road blocks exist and if or how those obstacles can be addressed.

Data collection, management, and sharing working group

Collection, management and the sharing of data is critical during an FAD outbreak. Addressing what information is collected, how it is stored and transferred between organizations or agencies prior to an outbreak will help prevent a breakdown of the system during an outbreak. This working group is charged with recommending the type of data that should be collected prior to and in the event of an outbreak to enable optimal management of an FAD outbreak, as well as which individuals/agencies/organizations will be responsible for data entry and management. Mechanisms for data sharing prior to and during an outbreak need to be addressed as well as issues related to data confidentiality and access.

This working group has administered three data management surveys to determine what information is collected and stored at the producer level, at the diagnostic laboratories, and in state databases. The information collected in these surveys will be analyzed to identify gaps in the data collection and storage process. The group will discuss possible approaches on how to address gaps in the data collection and storage process as well as evaluate available data sharing mechanisms and best practices.

Risk assessments working group

Risk assessments are a critical part of the SPS plan. This working group is challenged with prioritizing risk assessments necessary to provide additional scientific basis for the SPS plan. Discussions have included priority order of the four FADs included in the SPS plan and the types of animal movements. As funding becomes available to perform risk assessments, the priorities set by this working group will be considered.

Communication working group

Communication during an FAD outbreak is critical to protect animal health and minimize disease spread, ensure consumer confidence in meat safety, and prevent supply disruption to customers. The Cross-Species FMD Communications Team was formed to create a unified FMD crisis response plan, share FMD messaging, and form government partnerships to ensure coordinated response. The website FootAndMouthDiseaseInfo.org contains excellent messaging information. The communications

working group will serve as a liaison between the Cross-Species FMD Communications Team and the SPS Planning Committee. This Cross-Species Team has developed messaging for FMD. The communication working group will work to develop communications plans for CSF, ASF, and SVD for use before and during an outbreak.

Response to an FAD outbreak tomorrow

Developing the SPS plan will take time. The Planning Committee recognized the need to have a plan ready in the event an FAD outbreak occurred prior to having the SPS plan functional. Therefore, this working group was formed to address policies and procedures for maximizing a secure pork supply while minimizing FAD spread if an outbreak occurred tomorrow with currently available resources. The plans being formed utilize the Phase and Type of an FMD Outbreak Document.

Phases and types of an FMD outbreak document

Strategies for the response to, and management of, an FMD outbreak will change as the outbreak progresses and will depend upon the magnitude, location and other characteristics of the outbreak. At the beginning of an outbreak, or with a small outbreak, the highest priority is to take all measures possible to prevent disease spread, to stamp out the disease as rapidly as possible, and to reestablish the U.S. as an FMD free country. In an extensive outbreak of FMD, the highest priority is to ensure a secure food supply for the nation and the world by ensuring business continuity for food animal producers and all associated industries. The impacts of disease spread from a small focal outbreak are extremely high, as compared to the cost of stop movement and destruction of limited numbers of animals. Whereas the impact of a complete stop movement and stamping out policy are extremely high in an extensive outbreak as compared to the cost of limited further spread of FMD. These impacts must be weighed and the response strategies quickly adjusted as the outbreak unfolds. Having pre-defined phases and potential types of an FMD outbreak will facilitate development of adaptable emergency response and business continuity plans for the U.S. livestock industry. The phase and type of the FMD outbreak is expected to change over time and could be designated by the authorities responsible for managing the response. Different regions of the U.S. or segments of the animal agriculture industry may be designated as being involved in different phases or types of an FMD outbreak simultaneously. Different species may have different recommendations regarding stamping out and/or appropriate vaccination strategies. The phase and type designations in this document are guidelines and may be modified by the responsible authorities to best fit the specific outbreak.

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Conclusion

The SPS plan is being developed with input from producers, practitioners, Federal and State animal health officials, and individuals from academia and industry. While the plan will always be in draft form, evolving as new information becomes available; it will be a valuable document to maintain business continuity when an FAD outbreak occurs.

For more information on the Secure Food Supply plans, access the following website: <http://www.cfsph.iastate.edu/Secure-Food-Supply/index.php>.

The phases and types of an FMD outbreak document is available at: <http://www.cfsph.iastate.edu/Emergency-Response/Phases&Types-FMD-Outbreak.pdf>.

Reference

1. <http://usda01.library.cornell.edu/usda/current/HogsPigs/HogsPigs-03-30-2012.pdf>. Accessed June 14, 2012.

