

# THE IMPERATIVE FOR FOREIGN ANIMAL DISEASE PREPAREDNESS AND RESPONSE

## Why Prepare?

Preparing for and responding to foreign animal diseases (FADs)—such as highly pathogenic avian influenza (HPAI), Newcastle disease (ND), and foot-and-mouth disease (FMD)—are critical actions to safeguard the nation’s animal health, food system, public health, environment, and economy. FAD PReP, or the Foreign Animal Disease Preparedness and Response Plan, is the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Veterinary Services program that prepares for such events.



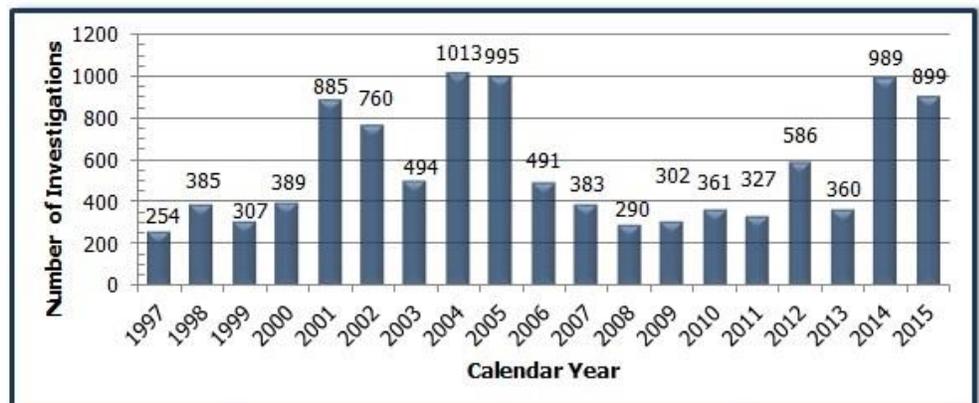
## Consequences of FAD Incidents

The 2001 FMD outbreak in the United Kingdom had an estimated impact of between \$12–18 billion. Studies have estimated a likely national welfare loss of between \$2.3–69 billion<sup>2</sup> for an FMD outbreak in California, depending on the delay in diagnosing the disease.<sup>3</sup> The impact would come from lost international trade and disrupted interstate trade, as well as from costs directly associated with the eradication effort, such as depopulation, indemnity, carcass disposal, and cleaning and disinfection. In addition, there would be direct and indirect costs related to foregone production, unemployment, and losses in related businesses. The social and psychological impact on owners and growers would be severe. Zoonotic diseases, such as HPAI and Nipah/Hendra may also pose a threat to public health.



## FAD Investigations

In the past 15 years there have been over 7,600 FAD investigations conducted throughout the United States, ranging from a yearly low of 254 investigations in calendar year 1997 to a high of 1,013 investigations in 2004 (figure at left). FADs are a critical concern to U.S. agricultural interests.



## Challenges of Responding to an FAD

Responding to an FAD event—large or small—may be complex and difficult, challenging all stakeholders involved. Response activities require significant prior preparation. There will be imminent and problematic disruptions to interstate commerce and international trade.

A response effort must have the capability to be rapidly scaled to the incident. This may involve many resources, personnel, and countermeasures. Not all emergency responders may have the specific food and agricultural skills in areas such as biosecurity, quarantine and movement control, epidemiological investigation, diagnostic testing, depopulation, disposal, and, possibly, emergency vaccination.

Establishing commonly accepted and understood response goals and guidelines, as accomplished by the FAD PReP materials, will help to broaden awareness of accepted objectives as well as potential problems.

## Lessons Learned from Past FAD Outbreaks

The foundation of FAD PReP are lessons learned in managing past FAD incidents. FAD PReP is based on the following:

- Providing processes for emergency planning that respect local knowledge.
- Integrating State-Federal-Tribal-industry planning processes.
- Ensuring that there are clearly defined, obtainable, and unified goals for response.
- Having a Unified Command with a proper delegation of authority that is able to act with speed and certainty.
- Employing science- and risk-based management approaches to FAD response.
- Ensuring that all guidelines, strategies, and procedures are communicated effectively to responders and stakeholders.
- Identifying resources and trained personnel required for an effective incident response.
- Trying to resolve competing interests prior to an outbreak and addressing them quickly during an outbreak.
- Achieving rapid FAD detection and tracing.

## FAD PReP Mission and Goals

In the event of an FAD outbreak in the United States, the three response goals are to

- (1) detect, control, and contain the FAD in animals as quickly as possible;
- (2) eradicate the FAD using strategies that are designed to stabilize animal agriculture, the food supply, the economy, and to protect public health and the environment; and
- (3) provide science- and risk-based approaches and systems to facilitate continuity of business for non-infected animals and non-contaminated animal products.

Achieving these three goals will allow individual livestock facilities, States, Tribes, regions, and industries to resume normal production as quickly as possible. They will also allow the United States to regain disease-free status without the response effort causing more disruption and damage than the disease outbreak itself.

The logo for FAD PReP consists of the text "FAD PReP" in a bold, serif font, enclosed within a double-lined rectangular border.

## FAD PReP Materials

FAD PReP is not a standalone plan; it is composed of:

- Strategic Plans (Concept of Operations)
- National Animal Health Emergency Management System Guidelines
- Industry Manuals
- Disease Response Plans (The Red Books)
- Standard Operating Procedures (for Critical Activities and Tools)
- Secure Food Supply Plans
- Ready Reference Guides.

FAD PReP adheres to law and policy provided in:

- U.S. Code and Code of Federal Regulations
- APHIS Guidance Documents and APHIS Directives
- USDA Department Guidance
- Other applicable Federal guidance, such as Presidential Directives.

# Where to go for FAD PReP Materials

<http://www.aphis.usda.gov/fadprep>

## Secure Food Supply Plans

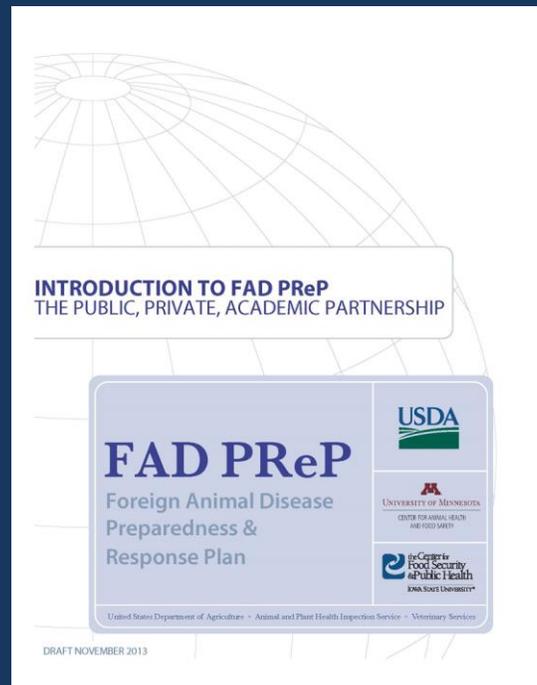
- [www.secureeggssupply.com](http://www.secureeggssupply.com)
- [www.securemilksupply.org](http://www.securemilksupply.org)
- [www.securepork.org](http://www.securepork.org)
- [www.securebroilersupply.com](http://www.securebroilersupply.com)

## References

- <sup>1</sup> Thompson D, Muriel P, Russell D, Osborne P, et al. 2001. Economic costs of the foot-and-mouth disease outbreak in the United Kingdom in 2001. *Rev Sci Tech Off Int Epiz.* 21: 675-687; Grubman MJ, Bast B. 2004. Foot-and-Mouth Disease. *Clin Microbiol Rev.* 17(2): 465-493; USDA Foreign Agricultural Service. 2007. UK Foot & Mouth Disease—recovery timetable, the economic impact and who pays? *Global Agriculture Information Network Report.* Available from <http://www.fas.usda.gov/gainfiles/200708/146292150.pdf>.
- <sup>2</sup> Carpenter TE, O'Brien JM, Hagerman AD, & McCarl BA. 2011. "Epidemic and economic impacts of delayed detection of foot-and-mouth disease: a case study of a simulated outbreak in California." *J Vet Diagn Invest.* 23:26-33.
- <sup>3</sup> Estimates based on models may vary: Ekboir (1999) estimated a loss of between \$8.5 and \$13.5 billion for an FMD outbreak in California. Ekboir JM. 1999. "Potential Impact of Foot-and-Mouth Disease in California: the Role and Contribution of Animal Health Surveillance and Monitoring Services." *Agricultural Issues Center.* University of California, Davis.

## Contributors to FAD PReP

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- LMI Government Consulting
- Industries and stakeholders involved in Secure Food Supply Working Groups



**National Preparedness and Incident  
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