
RESOLUTION NUMBER: 18 APPROVED

SUBJECT MATTER: Valid Sampling Methods and Protocols for Feed and Feed Inputs

BACKGROUND INFORMATION:

The incursion of foot and mouth disease virus (FMDV), classical swine fever virus (CSFV), and African swine fever virus (ASFV) into the United States (US) would result in the immediate loss of export markets for live swine, pork, and pork products. A Center for Agricultural and Rural Development (CARD), Food and Agricultural Policy Research Institute (FAPRI) study led by Dr. Dermot Hayes, economist at Iowa State University, estimated that in the first year of an ASF outbreak in the United States revenue loss by commodity would be \$8 billion for pork, \$4 billion for corn and \$1.5 billion for soybeans.

Peer-reviewed research has demonstrated survival of ASFV and other swine diseases in animal feed ingredients¹ and ASFV transmission in feed². To better understand and address the risk of pathogen introduction through feed, the US pork industry has helped convene a feed risk task force that includes industry stakeholders, the United States Department of Agriculture and the Food and Drug Administration. The task force has identified gaps in knowledge and subsequent research needs that include the development of diagnostic testing capability for feed and feed ingredients and the development of a response plan that will support feed ingredient monitoring for foreign animal disease contamination. Research to address these gaps has been funded by the Swine Health Information Center and the National Pork Board. It is expected that the research results will provide information that will help in the development of valid sampling methods and protocols for foreign feed and feed inputs.

1. Dee SA, Bauermann FV, Niederwerder MC, Singrey A, Clement T, de Lima M, et al. (2018) Survival of viral pathogens in animal feed ingredients under transboundary shipping models. PLoS ONE 13(3): e0194509.
2. Niederwerder MC, Stoian AMM, Rowland RRR, et al. Infectious Dose of African Swine Fever Virus When Consumed Naturally in Liquid or Feed. Emerg Infect Dis. 2019;25(5):891–897.

RESOLUTION:

The United States Animal Health Association (USAHA) urges the Food and Drug Administration (FDA), Center for Veterinary Medicine and United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Veterinary Services (VS) to work with the United States (US) pork industry to develop valid sampling methods and protocols to detect pathogens in foreign feed and feed inputs that can be applied at the point of embarkation to the US or upon arrival at the port of entry.

INTERIM RESPONSE:

USDA, APHIS, VS recognizes the concerns of USAHA and appreciates the opportunity to respond. USDA and FDA continue to work with industry and academic partners on the feed risk task force to identify available data as well as gaps in information that limits the development of valid sampling methods and protocols to detect pathogens in foreign feed and feed inputs.

The task force and a panel of experts participating in a recently completed structured expert elicitation have recognized there is a lack of data describing the likelihood of feed contamination and the feed ingredients likely to be contaminated by specific pathogens of concern. These needed data are foundational to the development of valid sampling methods and protocols designed to detect pathogens in foreign feed and feed inputs.

VS looks forward to continuing to collaborate with industry and academic partners to identify epidemiologic studies characterizing the potential role of non-animal origin feed ingredients as a vehicle for transboundary transmission of pathogens of concern, and the results of quantitative studies determining the likelihood of pathogen contamination for ingredients confirmed to be vehicles of transboundary transmission. These data, combined with the performance characteristics of detection methods in relevant feed matrices and volumes, are critical to the design and evaluation of sampling protocols that may be applied to ensure the safety of foreign feed and feed inputs.

FINAL RESPONSE:

USDA, APHIS, VS recognizes the concerns of USAHA and appreciates the opportunity to respond. APHIS and FDA continue to work with industry and academic partners on the feed risk task force to identify available data and gaps in information that limit the development of valid sampling methods and protocols to detect pathogens in foreign feed and feed inputs.

The task force and a panel of experts participating in a recently completed structured expert elicitation recognized there is a lack of data describing the likelihood of feed contamination and the feed ingredients likely to be contaminated by specific pathogens of concern. These needed data are foundational to the development of valid sampling methods and protocols designed to detect pathogens in foreign feed and feed inputs.

Following the September 2019 meeting, regular discussions have occurred between APHIS and FDA. APHIS continues to investigate the science and feasibility of regulatory options. Specific options considered include a permit process, and possible regulations. However, there are many scientific and technical questions that need to be addressed as well as logistical challenges that must be considered before APHIS proceeds with any of the possible action items. Limited personnel resources, ongoing scientific developments, regulatory requirements, evaluation of potential costs to the regulated industry, time necessary to implement regulatory actions, and the response to the COVID-19 outbreak have delayed a final determination.