Ensuring Food Security Through Enhanced Data Availability and Decision Support

Situational Awareness

In order to rapidly manage a foreign animal disease (FAD) or emerging infectious disease (EAD) incident, animal health officials need to be able to link together location-based information, animal movements, and the disease status of sites in the established control area(s). Industry is the most authoritative source of location and animal movement data, and also provides the critical elements to be able to link this information with diagnostic test results (disease status of sites) to complete the picture needed for decision-making by animal health officials. While that data exists across production systems, it is kept in multiple formats, which creates challenges for sharing and visualization.

A cow eating hay off a relief truck in Texas (Source: FEMA)

Project Overview

This project will contribute important components of an enterprise-grade product that will allow sharing of secure, real-time animal agriculture industry data that has the potential to provide impacts across the emergency cycle, irrespective of whether the catastrophic event is naturally occurring, accidental, or introduced by a malevolent actor. The Food and Agriculture is a critical infrastructure sector; impairment of this infrastructure has the potential to impact food security (*i.e.*, availability of food), food safety (*i.e.*, contamination or other public health risks) and food defense (*i.e.*, against intentional adulteration of food products).

Next Steps

Development of a system with the described characteristics will allow for, and help incentivize, keeping data current, accurate, and available through the interface and control given to animal producers. Animal production systems will maintain control of their data and have the ability to control what gets shared, with whom, and when, at a granular level.

This system is proposed as a product in design and delivery. It is aimed at hardening and increasing resilience in the U.S. food supply in cases of disease or adulteration, natural or introduced, specifically in animal agriculture. Given adaptability to multiple species, this system stands to benefit poultry, swine, cattle, and other food animal production systems. A critical function of this system is quick facilitation of standardized, informative data sharing to animal health officials, resulting in continued business operations for producers and faster and more robust emergency response for regulators.

The functionality of this system is complementary to and is structured to act as the technology behind application of the secure food supply plans that are in various stages of development or implementation for different food animal industries. With generally applicable data standards, this system could be applied to multiple species groups, nationwide.

New York Agriculture (Source: FEMA)

To learn more about this program, contact
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