

## Leading products

**New screening tools for animal agriculture** – Diagnostic test development and validation ensures early detection and supports business continuity in the face of a high-consequence disease introduction.

**Information Dashboard Framework** – Online technology allows decision makers to integrate a wide range of emergency data into a “common operating picture,” organizing it into an easy-to-use format. Products derived from the IDF include:

- **The Laboratory Capacity Estimation Model (LCEM)**, under development for the USDA National Animal Health Laboratory Network, will help increase the nation’s capability to prepare and respond to a high-consequence animal disease.
- **The Bio-surveillance Field Entry System (BFES)** provides an integrated application for collecting and analyzing enhanced surveillance data. It allows veterinarians to use an iPad to enter clinical animal health data from livestock premises, feedlots, and markets.
- **The Bio-surveillance Common Operating Picture (BCOP)** allows analysts at the National Bio-surveillance Integration Center to track, organize, and share biological event information from around the world.
- **The Emergency Response Support System (ERSS)**, under development for USDA’s Animal and Plant Health Inspection Service, organizes data from authoritative sources to enhance the sharing of information during an animal disease outbreak.

**Novel vaccine platforms** – These platforms use cutting-edge expression systems and novel bioinformatics capabilities to define the next generation of animal vaccines.

**One Health Career-Oriented Youth Educational National Program** – This high school–level training program is designed to address a national shortage in paraprofessionals to provide support to human and animal medicine.



## About the FAZD Center

Founded in April 2004 as a U.S. Department of Homeland Security Center of Excellence, the National Center for Foreign Animal and Zoonotic Disease Defense (FAZD Center) focuses on research, education, and outreach to prevent, detect, mitigate, and recover from exotic animal, emerging, and/or zoonotic (transmissible between animals and humans) diseases, which may be introduced intentionally or through natural processes.

Headquartered at Texas A&M University, the nation’s sixth-largest university by enrollment, the FAZD Center also leverages the resources of other major universities and Minority-Serving Institutions.

### Director

Tammy R. Beckham, Ph.D., DVM  
tbeckham@tvmdl.tamu.edu

1500 Research Parkway, Suite 130-B  
College Station, TX 77843-2129  
(979) 845-2855

[FAZD.tamu.edu](http://FAZD.tamu.edu)

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# Protecting Agriculture and Public Health from High-Consequence Diseases

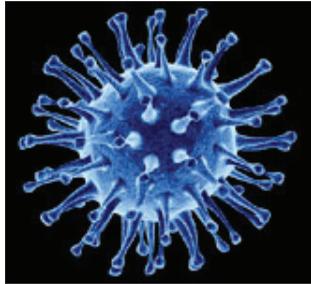
The logo for the FAZD Center is a blue rectangle with a red border. Inside the rectangle, the words "FAZD CENTER" are written in white, bold, sans-serif capital letters. Below the rectangle, the full name "NATIONAL CENTER FOR FOREIGN ANIMAL AND ZOO NOTIC DISEASE DEFENSE" is written in a smaller, blue, sans-serif font.

FAZD CENTER

[FAZD.tamu.edu](http://FAZD.tamu.edu)

# Increasing resiliency for the agricultural and public health sectors

## Why high-consequence animal diseases pose significant threats to U.S. homeland security



**60%**

of animal pathogens are zoonotic — that is, transmissible between animals and humans.



**75%**

of recently emerging infectious diseases affecting humans began as animal diseases. The most dangerous of these pose catastrophic risks to human health and livestock health.



**13%** of all U.S. jobs

and **\$1 trillion** in annual U.S. economic activity are at risk when the national agricultural economy is threatened by high-consequence animal diseases.

## How we find solutions

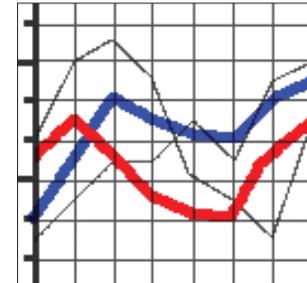
### Biological Systems

Vaccines, immuno-modulators, diagnostic assays, and universal platforms help meet the goals of early detection, diagnosis, prevention, response, and recovery.



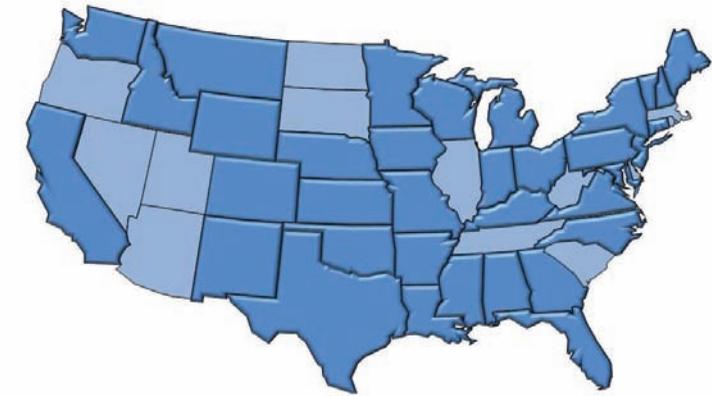
### Information Analysis Systems

The Information Dashboard Framework and the products derived from the IDF support emergency management and business continuity.



### Education and Outreach

Graduate programs, early responder training, K–12 education, and stakeholder workshops provide the next generation workforce for agriculture, public health, and homeland security.



**107 partners in 35 U.S. states, plus the District of Columbia, Canada, the United Kingdom, Pakistan, and Kazakhstan**

The FAZD Center is a multi-institutional organization representing major research universities and Minority-Serving Institutions from across the United States, as well as the Institute for Animal Health at Pirbright in the United Kingdom, plus laboratories in the National Animal Health Laboratory Network.

The center is also closely aligned with the Department of Homeland Security (DHS) Science and Technology Directorate, the U.S. Department of Agriculture (USDA), the Animal and Plant Health Inspection Service (USDA-APHIS), the Agricultural Research Service (USDA-ARS), agricultural industries, the private sector, bio-pharmaceutical companies, additional federal agencies, national laboratories, and other DHS Centers of Excellence.