

# NATIONAL BIO AND AGRO-DEFENSE FACILITY (NBAF)



**Location:** Manhattan, Kansas (under construction)

**Size:** Main laboratory building is 574,000 square feet

**Core Competencies:** Diagnostics, Training, North American Vaccine Bank, Basic and Applied Research, Vaccines and Agriculture Biological Countermeasures, and Vaccine Licensure

**Key Customers:** U.S. Livestock Producers, National Veterinary Stockpile, National Animal Health Laboratory Network, FBI, USDA ARS and APHIS, Private Industry, and Academia

## Protecting the Nation's Food Supply and Public Health

The National Bio and Agro-Defense Facility (NBAF) will be a state-of-the-art, biocontainment laboratory for the study of diseases that threaten both America's animal agricultural industry and public health. NBAF will strengthen our nation's ability to conduct research, develop vaccines, diagnose emerging diseases, and train veterinarians.

According to the World Health Organization, approximately 75 percent of new and emerging infectious diseases are zoonotic diseases which may be transmitted from animals to humans. The United States currently does not have a laboratory facility with maximum biocontainment (BSL-4) space to study high-consequence zoonotic diseases affecting large livestock. NBAF will be the first laboratory facility in the U.S. to provide BSL-4 laboratories capable of housing cattle and other large livestock. NBAF will also feature a vaccine development module to augment its laboratory research and accelerate the transfer of new science and technology into the marketplace.

NBAF's location in Manhattan, Kansas, places it within the Kansas City Animal Health Corridor, the largest concentration of animal health companies in the world. NBAF will be constructed and operated on a secure federally owned site on the northwest corner of the Kansas State University (KSU), adjacent to KSU's Biosecurity Research Institute in Pat Roberts Hall.

## Designed to Ensure Safety and Security

NBAF is designed to meet or exceed modern biocontainment design principles and standards. The laboratory's critical systems will include redundant safety and biocontainment features. In the case of a tornado, the facility's biocontainment areas are designed to a standard similar to that applied in the nuclear industry for structural and containment integrity. All recommendations identified in prior risk assessments were incorporated into the NBAF design.

A National Research Council report found that the current NBAF design incorporates best practices used in other animal and zoonotic pathogen laboratory facilities in the United States and abroad. NBAF will be the nation's only large animal BSL-4 facility built to safely handle pathogens that do not currently have treatments or countermeasures.

DHS will not build or operate NBAF unless it can be done in a safe manner. The U.S. Department of Agriculture and the Centers for Disease Control will not issue a certificate of registration allowing select agent research at NBAF until all requirements are satisfied.

## Partnerships and Collaboration

NBAF will play a leading role in protecting the nation's health and food supply as part of an integrated, advanced bio/agro security innovation system (BASIS). This system is designed to materially enhance public/private sector cooperation and collaboration, leverage stakeholder knowledge and capabilities, accelerate the transition of technologies and products into the marketplace, and enable skilled training, talent development, and regional economic growth. BASIS is strengthened by NBAF's proximity to a network of organizations with veterinary, agricultural, and animal pharmaceutical expertise.

## Operations Will Begin in 2022

DHS is developing a plan to provide a seamless transition from the Plum Island Animal Disease Center (PIADC) to NBAF that includes an overlap of operations to ensure no interruption of the critical science mission and operational capabilities. Construction activities are underway, facility commissioning will be completed in May 2021, and the facility will be fully operational in December 2022. Current operations at PIADC will continue until the mission is transitioned to NBAF in 2023.

## Contact

Questions? For more information, visit <http://www.dhs.gov/nbaf> or email [SandTNatLabs@hq.dhs.gov](mailto:SandTNatLabs@hq.dhs.gov).