

# Preventing Agroterrorism

*Veterinary Diagnostic Lab part of statewide system*

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The Arizona Veterinary Diagnostic Laboratory (AzVDL) in Tucson does more than diagnose and treat animal diseases. Since September 11, 2001, its role has also expanded to include surveillance for bioterrorism. This entails a constant vigilance in diagnosing and detecting all foreign pathogens that affect animals in the state.

Bioterrorism — defined as the intentional use of biological agents such as bacteria, viruses or toxins to cause illness — includes agroterrorism, the deliberate use of biological or chemical agents on crops or livestock to disrupt the food supply or agricultural industry. Some diseases of animals are also human pathogens and must be tracked when they occur.

“We have the concern and the capability to monitor many pathogens, including some that have human health significance such as anthrax, tularemia, or plague,” says Robert Glock veterinary toxicologist and director of the diagnostic laboratory, which is part of the Department of Veterinary Sciences and Microbiology in the College of Agriculture and Life Sciences. “We do get involved in identifying those diseases and others, but we now get more involved in whether it is a natural or intentional occurrence. Where we used to look for endemic disease, we are now looking for intentional introductions, as are our practitioners throughout the state.”

Glock notes that the AzVDL is not the first line of defense, rather it is plugged into a statewide bioterrorism program where state and federal officials, the state veterinarian, UA veterinary science and animal

sciences faculty and other veterinarians cooperate in reporting anything that could be a foreign or exotic disease. This more coordinated network will funnel reports on foreign animal diseases directly to the USDA for state and federal bioterrorism assistance, according to Glock.

Specifically, the AzVDL is one of 12 state diagnostic laboratories selected to participate in a Homeland Security-based pilot program to develop a network of laboratories that will begin testing for foreign animal diseases/agroterrorism on a state level. Faculty and staff at the laboratory have been working on improving laboratory biosecurity, on quality assurance, and on electronic networking capabilities as part of their Homeland Security grant.

Although the AzVDL’s initial emphasis in preventing bioterrorism has focused on surveillance and reporting, outreach and education are considered just as important as the diagnostic aspect. Serious animal diseases also threaten the state’s economy, particularly the agricultural industry and related businesses, and the right knowledge can make a difference. Extension veterinarian Peder Cuneo coordinates an information network (a listserv, website and regular seminars and workshops) to keep ranchers and the public informed about animal disease outbreaks and how to handle or prevent them. The AzVDL reports any unusual disease findings to the state veterinarian and to the Arizona Department of Health Services.

“We’re currently tracking and looking for West Nile virus and other zoonotic diseases that are transmissible to man,” Glock says. “We’re also increasing our surveillance for foreign animal diseases such as foot and mouth disease.” Efforts are not solely concentrated on domestic livestock and companion animals. Wildlife diseases are also included in the laboratory’s surveillance, and so are diseases that can be transported in through the Mexican bor-

der just and hour and a half south of campus. The laboratory functions cooperatively with state and federal regulatory officials in diagnosing animals brought in from Mexico.

In any case, the goal of the diagnostic laboratory is to protect Arizona by identifying the presence any potentially dangerous animal disease, whether or not it was intentionally introduced.\*

## About the Arizona Veterinary Diagnostic Laboratory (AzVDL):

The Arizona Veterinary Diagnostic Laboratory, located at the UA’s West Campus Agricultural Center in Tucson, provides services to veterinarians, animal owners and federal and state agencies for the diagnosis of disease problems of livestock, companion animals, zoo and wild species. Facilities include modern bacteriology, virology, toxicology and pathology laboratories as well as necropsy rooms for small and large animals.

Veterinary diagnostic laboratories are a useful aid in disease control for veterinarians and producers. The primary function of these laboratories is to provide assistance in disease diagnosis. They also serve as an “early warning” system for new emerging diseases, resurgence of well-known diseases, and introduction of foreign animal diseases into the United States. Finally, diagnostic laboratories may conduct applied research into animal diseases of local, state, national, and international significance. The AzVDL is accredited by the American Association of Veterinary Laboratory Diagnosticians.

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