Economic Value of Veterinary Diagnostics

Public Investment in Animal Health Testing Yields Economic Benefits
The Texas Veterinary Medical Diagnostic Laboratory (TVMDL) works to protect animal and human health through diagnostic testing of samples at the state, regional, national, and global levels. Texas citizens, veterinarians, and animal industries benefit from the routine daily testing provided by TVMDL.

Although it is difficult to place a dollar figure on these activities, scientific studies have shown a cost-benefit ratio of 1:10 for veterinary laboratories such as TVMDL. Without TVMDL’s services, Texas would experience both a health and a fiscal crisis.

Testing for Diseases Affecting Public Health

Routine diagnostic testing performed at TVMDL serves as the backbone of a statewide, regional, and global animal and zoonotic (transmissible from animals to humans) disease surveillance system. TVMDL testing capabilities help protect the public health sector by ensuring a safe food supply and acting as an early detection system for zoonotic diseases, such as highly pathogenic bird flu. In FY 2008, TVMDL performed more than 1.4 million tests. Of those, 560,000 were directly related to the protection of public health; approximately 400,000 tests were performed on specimens with zoonotic potential, and 180,000 were tests for the detection of bird flu. (Fig. 1).

Providing Excellent Returns on Investment

The Texas livestock industry represents $11 billion in production revenues. Depending on the method of introduction, the estimated direct costs from a foreign animal disease outbreak in the United States is between $60 billion and $100 billion. Therefore, early detection and eradication are essential to controlling the spread of, and recovering from, a foreign animal disease event. A $7 million investment in TVMDL’s endemic and routine diagnostic capacity for disease surveillance is only a small fraction of the estimated direct costs Texas would incur in the event of a foreign animal or zoonotic disease outbreak (Fig. 2).

Supporting Livestock Commerce

In 2007, the total dollar value of Texas livestock exports was estimated at $1.2 billion, and the net value of Texas poultry exports was estimated at $194 million. TVMDL contributes to Texas’s livestock commerce through import and export testing of animals and products. In 2007, TVMDL performed 708,300 tests in support of $65.4 million in interstate, intrastate, and international livestock commerce (Fig. 3).
Routine disease surveillance - Protection of public health

- 2008 total tests: 1.4
- Testing on specimens directly related to protection of public health: 0.56
- Specimens tested for presence of zoonotic agents: 0.40
- Specimens tested for highly pathogenic bird flu: 0.18

Investment versus potential losses - Foreign animal emerging disease events

- Texas general revenue yearly appropriations to TVMDL: 0.007
- Texas livestock industry production: 11.0
- U.S. projected direct losses from foreign animal disease outbreak: 60.0 to 100.0

FY2007 Livestock commerce

- Total livestock exports: 1.2
- Poultry exports: 0.2
- Commerce supported by TVMDL testing: 0.0654

708,300 tests in 2007 to support interstate/intrastate Texas livestock investments.