

A. marginale prevalent in Texas cattle

Texas A&M System professionals collaborate on first known *Anaplasma marginale* seroprevalence study in Texas



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The June issue of *Preventative Veterinary Medicine* features an article on “Seroprevalence of *Anaplasma marginale* in Texas Cattle.” The article is a collaboration between Texas A&M University System professionals: Thomas B. Hairgrove, DVM, and Ronald J. Gill, PhD, with the Texas A&M AgriLife Extension Service; Sandy Rodgers, MS, with the Texas A&M Veterinary Medical Diagnostic Laboratory (TVMDL); and Thomas M. Craig, DVM, PhD, and Christine M. Budke, DVM, PhD, with the Texas A&M College of Veterinary Medicine and Biomedical Sciences (CVM).

“Anaplasmosis has been a disease that cattle producers have lived with for decades,” said Dr. Hairgrove. “Today, many producers consider this a bygone disease, but that is not the case. In 1972, anaplasmosis was the second most concerning disease for national cattle producers. In a recent Texas study, it was the 11th most concerning, out of 11 diseases. However, comingling cattle of unknown origin is always a concern, especially with diseases such as anaplasmosis.”

The article is the result of a study conducted during the summer of 2011 on more than 12,000 Texas cattle marketed at 23 auctions around the State. The study objective was to estimate the seroprevalence and spatial distribution of cattle infected with *A. marginale*. Put simply, researchers wanted to know how many cattle were exposed to *A. marginale* at one time.

A. marginale is a tick-borne, livestock pathogen that affects animals worldwide. At this time, there is no U. S. Department of Agriculture-licensed vaccine for *A. marginale*. The economic impact on the cattle industry is reflected in morbidity, abortion and poor growth rate. This is the first known study to determine the seroprevalence of *A. marginale* in Texas beef cattle.

“Not only is this study of major significance to cattle producers and veterinarians in Texas, but it also demonstrates how Texas A&M AgriLife Extension Service, TVMDL and the College of Veterinary Medicine & Biomedical Sciences are working together to solve health care problems for the citizens of the state,” said Allen J. Roussel, Jr., DVM, MS, Diplomate, ACVIM, ECBHM, Professor and Department Head, Large Animal Clinical Sciences, CVM.

Researchers randomly selected 1,835 serum samples from the 12,000 collected at the auction markets. The testing was conducted at TVMDL using a commercial enzyme-linked immunosorbent assay for antibody detection. Cattle from the western portion of the State demonstrated a higher prevalence than those in the east.

The higher seroprevalence coincides with the geographic distribution of *Dermacentor albipictus*, or “winter tick.” The authors’ state, “Many vectors are associated with *A. marginale* transmission, but ticks serving as biological vectors may be responsible for the maintenance of persistent infection in west Texas.” This information can be vital to producers developing herd health programs.

The full article is available from *Preventative Veterinary Medicine* at <http://dx.doi.org/10.1016/j.prevetmed.2014.05.008>.

About TVMDL:

The Texas A&M Veterinary Medical Diagnostic Laboratory protects animal and human health through diagnostics. An agency of the Texas A&M University System, TVMDL comprises two full-service laboratories, in College Station and Amarillo, and two poultry laboratories, in Center and Gonzales.

TVMDL is among 12 core laboratories in the National Animal Health Laboratory Network, a group of state and regional laboratories designed to provide a nationwide surge testing, response, and recovery capacity in the event of an animal disease outbreak.

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