Vet Parasit Vol. 15 https://doi.org/10.1016/j.vprsr.2018.100258

Seroprevalence of Bovine Anaplasmosis in Georgia

C. Okafor*, S. Collins, J. Daniel, J. Coetzee, B. Whitlock

Anecdotally, Veterinary Feed Directive prescriptions in many states in the southeastern United States (U.S.) are written most often for treatment and prevention of bovine anaplasmosis (BA). This tick-borne disease of cattle caused by *Anaplasma marginale* remains an economically important disease in U.S. However, there are no prevalence estimates of this disease in Georgia (GA). Thus, this study was aimed at determining the seroprevalence of BA in GA. In an active cull beef cow screening for BA, 293 beef cows were sampled from one cattle auction barn and one slaughterhouse between May 2013 and September 2014. These cows originated from 6 of 159 counties in GA. The top 3 counties sampled were Gordon (241 samples), Carroll (25 samples), and Emanuel (12 samples). Of the 293 sampled beef cows, 13 were positive and 280 were negative for BA. Hence, with competitive ELISA, the overall observed apparent seroprevalence of BA in GA was 4.44% (95% CI: 2.61–7.44%) while the estimated true seroprevalence was 2.62% (95% CI: 5.2–5.87%). The top 2 prevalent counties were Carroll and Gordon with apparent seroprevalence of 8% (95% CI: 0.22–24.97) and 4.78% (95% CI: 0.54–6.89), respectively and estimated true seroprevalence of 6.45% (95% CI: 0.–55.37) and 2.99% (95% CI: 0.54–6.89), respectively. Although not significant, counties with specimen submissions for BA testing had a greater cattle population and number of cattle farms than counties without specimen submissions. Nevertheless, future prevention and control measures for BA should out of caution target counties with \geq 5000 total cattle heads.

* Biomedical and Diagnostic Sciences, College of Veterinary Medicine, University of Tennessee Institute of Agriculture, Knoxville, TN 37996

This research was funded by the AABP Foundation through the 2012 Competitive Research Grant Award. If you would like to support this clinically relevant research, please consider a donation to the Foundation. You can donate online at <u>https://aabp.org/foundation/donate.asp</u>.