

## **Doug Tolleson**

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### **Education**

B.S. Animal Science, Texas A&M University. 1984  
M.S. Physiology of Reproduction, Texas A&M University. 1986  
Ph.D. student, Rangeland Ecology and Management (projected 2007)

### **Current Position**

Director, Grazingland Animal Nutrition Lab. July, 1998 - present.  
Assistant Research Scientist. National Center for Foreign Animal and Zoonotic Disease  
Defense. December 2004 – present

Conduct research into the nutrition and physiology of grazing animals using near infrared spectroscopy of feces, forage and biological fluids. Model livestock movement, transportation, and marketing patterns as they relate to epidemiology of zoonotic diseases.

### **Experience**

Twenty years in livestock, forage, range and wildlife research with the University of Arkansas (Booneville, AR), Texas Agricultural Experiment Station (Overton, Uvalde, and Vernon) and Texas A&M Dept. of Rangeland Ecology and Management, (College Station). Senior author of 38 abstracts and journal articles, junior author of 59 abstracts and journal articles.

## Recent Publications

Tolleson, D. R., P.D. Teel, J.W. Stuth, O.F. Strey, T.H. Welsh, Jr, and G.E. Carstens. 2006. Fecal NIRS: Detection of tick infestations in cattle and horses. (Journal of Veterinary Parasitology, In Press)

Showers, S.E., D.R. Tolleson, J.W. Stuth, J.C. Kroll, B.H. Koerth. 2006. Predicting diet quality of white-tailed deer via NIRS fecal profiling. (Rangeland Ecology and Mgmt, In Press)

Li H., D. Tolleson, J. Stuth, K. Bai, F. Mo, S. Kronberg. 2006. Fecal near infrared reflectance spectroscopy to predict dietary protein and digestibility of sheep. (Small Ruminant Research, In Press)

Tolleson, D.R., Randel, R.D., Stuth, J.W., Neuendorff, D.A. 2005. Determination of sex and species in red and fallow deer by near infrared reflectance spectroscopy of the faeces. *Small Ruminant Research* 57:141-50

Pinchak, W.E., D.R. Tolleson, M. McCloy, L.J. Hunt, R.J. Gill, R.J. Ansley, and S.J. Bevers. 2004. Morbidity effects on productivity and profitability of stocker cattle grazing in the Southern Plains. *J. Anim Sci.* 82: 2773-2779.

Stuth, J.W., A.A. Jama, and D.R. Tolleson. 2003. Direct and indirect means of predicting forage quality through near infrared reflectance spectroscopy. *Field Crops Research* 84: 45-56.

Tolleson, D.R.; Stuth, J.W. 2006. Near infrared reflectance spectroscopy of fresh feces and plant tissue under field conditions. Society for Range Management meetings, Vancouver, BC

Tolleson D., Rude B., Ouellette J., Bissell H, Oberle N., Banik K., Prince S., Stuth, J. 2006. Chemical characteristics of two species of bamboo as determined by near infrared reflectance spectroscopy. Society for Range Management meetings, Vancouver, BC

Dittmar R., Tolleson D., Prince S., Banik K, Gallino J. Gombosuren U., and Stuth J. 2006. Crude protein of diet and feces in goats: Forward and reverse process prediction via near infrared reflectance spectroscopy. *Journal of Animal Science* 84:22 (Suppl. II)

Gallino J., Tolleson D., Welsh T, Carstens G., Teel P., Strey O., Jonovich L., Prince S, Dean K., and Stuth J. 2006. Plane of nutrition by tick burden interaction in cattle: Effect on body weight, dry matter intake, and plasma IGF-1. *Journal of Animal Science* 84:13 (Suppl. II)

Prince S., Tolleson D., Gallino J., Banik K., Teel P., Strey O., Carstens G., Welsh T., Dean K., and Stuth J.W. 2006. Plane of nutrition by tick burden interaction in cattle: Effect on fecal composition. *Journal of Animal Science* 84:13 (Suppl. II)