



Overview of Michigan State University Brucellosis Research in Africa

Professor John B. Kaneene

DVM, MPH, PhD, FAES

**Center for Comparative Epidemiology
Michigan State University**

Workshop: An Integrated Approach to Controlling
Brucellosis in Africa, Addis Ababa, 29-31 January 2013



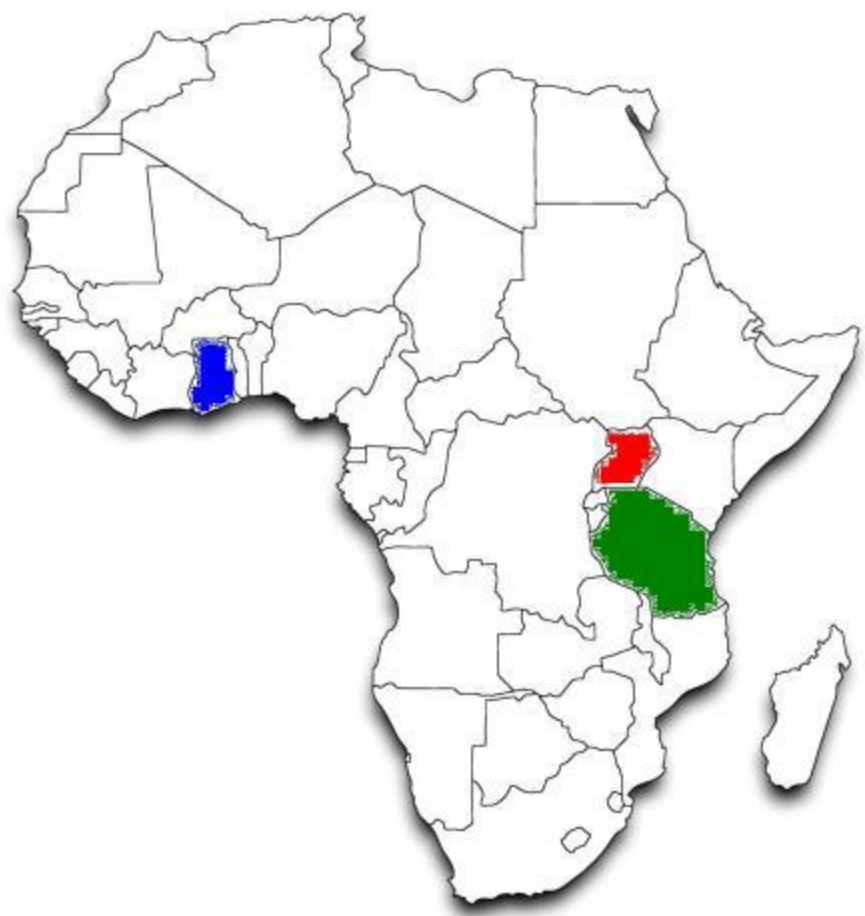


Countries of Study

❖ Ghana

❖ Tanzania

❖ Uganda





Research in Uganda

- ❖ **Comparative Study of Brucellosis in Livestock and Humans in Southwestern Uganda**
- ❖ **Collaborating Universities**
 - ❖ Michigan State University, College of Veterinary Medicine
 - ❖ Prof. John B. Kaneene
 - ❖ Makerere University, College of Veterinary Medicine, Animal Resources, and Biosecurity
 - ❖ Dr. Jesca L. Nakavuma



Research in Uganda

❖ Comparative Study of Brucellosis in Livestock and Humans in Southwestern Uganda

❖ Hypotheses

- ❖ Brucellosis is prevalent in cattle, goats, and humans in rural Uganda
- ❖ Both *Brucella abortus* and *Brucella melitensis* are present in cattle, goats and humans, and is circulating between cattle and goats



Research in Uganda

- ❖ **Comparative Study of Brucellosis in Livestock and Humans in Southwestern Uganda**
- ❖ **Hypotheses (cont.)**
 - ❖ Human brucellosis is associated with interaction with infected livestock, and consumption of undercooked dairy products from infected livestock

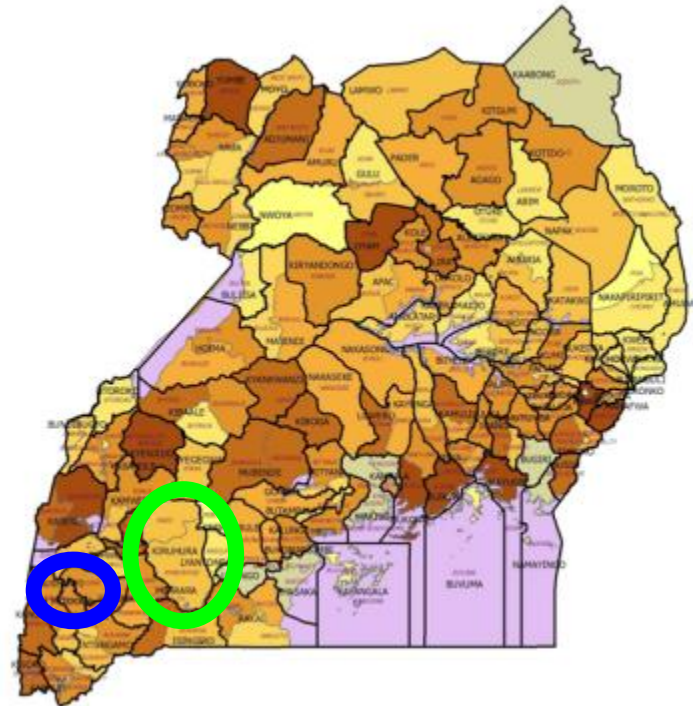


Research in Uganda

❖ Comparative Study of Brucellosis in Livestock and Humans in Southwestern Uganda

❖ Study Sites

- ❖ Kiruhura District
- ❖ Old Bushenyi District





Research in Tanzania

- ❖ **The Prevalence of Brucellosis in Cattle, Goats, and Humans in Naitolia, Northern Tanzania**
- ❖ **Collaborating Universities**
 - ❖ Michigan State University, College of Veterinary Medicine
 - ❖ Prof. John B. Kaneene
 - ❖ Sokoine University of Agriculture, School of Veterinary Medicine
 - ❖ Dr. S.I Kimera



Research in Tanzania

❖ The Prevalence of Brucellosis in Cattle, Goats, and Humans in Naitolia, Northern Tanzania

❖ Hypotheses

- ❖ Brucellosis is prevalent in cattle, goats, and humans in Naitolia and likely higher (15 – 25%) than what has been reported in many rural communities in East Africa
- ❖ Both *Brucella abortus* and *Brucella melitensis* are present in cattle, goats, and humans in Naitolia



Research in Tanzania

❖ The Prevalence of Brucellosis in Cattle, Goats, and Humans in Naitolia, Northern Tanzania

★ Study Site





Research in Ghana

- ❖ **A Comparative Study of Brucellosis in Local and Imported Cattle Breeds**
- ❖ **Collaborating Universities**
 - ❖ **Michigan State University, College of Veterinary Medicine**
 - ❖ Prof. John B. Kaneene
 - ❖ Dr. Dalen Agnew
 - ❖ **University of Ghana, Noguchi Memorial Institute for Medical Research**
 - ❖ Dr. Benjamin Adu-Addai
 - ❖ Dr. Phyllis Addo
 - ❖ Dr. Dr. E.B.M. Koney



Research in Ghana

❖ A Comparative Study of Brucellosis in Local and Imported Cattle Breeds

❖ Hypothesis

- ❖ The prevalence of Brucellosis in local breeds of cattle is higher than in imported breeds, due to differences in breeding practices



Research in Ghana

❖ A Comparative Study of Brucellosis in Local and Imported Cattle Breeds

❖ Study Sites

★ Village of Apolonia

