# 2016 Reciprocal Meat Conference - Education and Extension Tools

### Meat and Muscle Biology<sup>TM</sup>



## Survey of Livestock Management and Protein Consumption in Rural Villages of Malawi

K. E. Hanlon\*, M. M. Brashears, K. A. Ortega, and M. F. Miller

Department of Animal and Food Sciences, Texas Tech University, Lubbock, TX, USA

**Keywords:** Africa, food security, goat, Malawi *Meat and Muscle Biology* 1(2):11

doi:10.221751/rmc2016.012

### **Objectives**

There were 2 objectives: 1) to survey livestock (sheep, goats, beef, poultry, swine, horses, or other) ownership and management methods and 2) to survey consumption habits of livestock-derived protein (meat, milk, or eggs) in rural villages of Malawi.

#### **Materials and Methods**

Surveys were conducted in villages of 11 different communities throughout central Malawi during 2 dry season months. Translators fluent in both languages translated survey responses orally from Chichewa to English. The questionnaire provided categorical options for response to each question. If participants selected "other", they were asked to detail their response. Respondents were allowed to indicate multiple responses when applicable. Part I of the surveys addressed livestock ownership details, including number of each species if applicable, primary use of livestock (income, consumption, transportation, etc.) as well as general questions about animal housing and management. Part II asked about livestock derived protein consumption habits (from sheep, goats, swine, cattle, poultry, wild game, or other) for the household, by protein type and frequency of consumption. Full survey completion success was 81.3% (26/32).

#### Results

Age of survey participants ranged from 30 to 75 yr, with an average age of 51 yr of age. All survey

respondents (n = 32) owned 1 or more livestock species. Goats or sheep were the most commonly owned species (87.5%, 28/32), followed by chickens (78.1%. 25/32), with horses being the least frequently owned (3.2%, 1/32). All survey respondents utilize one or more species of livestock as an income source, with 75.04% (24/32) also using one or more species of their livestock as a protein source.

Of those surveyed, 34.6% (9/26) reported daily consumption of protein, with the most frequently consumed protein source on a daily basis reported as eggs (19.2%, 5/26), and by mice and other rodents (19.2%, 5/26). Poultry was consumed 2 to 3 times per month (34.6%, 9/26) or once a month (34.6%, 9/26). Most respondents consumed sheep and goats either once a moth (30.8, 8/26) or 2 to 3 times per a month (19.2%, 5/26). Species most commonly selected as never consumed by those surveyed were wild game (69.2%, 18/26), beef (57.7%, 15/26) and pork (42.3%, 11/26).

#### Conclusion

Results from these surveys can be used to better understand livestock management techniques, as well as livestock species most commonly found in rural villages of Malawi. Additionally, the results of species most readily available and current consumption habits can provide direction for development of educational materials and training programs to improve the availability of protein and iron to combat anemia.