



2014 BHEARD Scholar
Emmanuel M. Atiba

Profile

Country of Study:	USA
University:	Virginia State University
Department:	Agriculture
Student Position:	Graduate Research Assistant — MSc
Home Country:	South Sudan
Home Institution:	University of Juba
Home Position:	Teaching Assistant
Mentored By:	US: Dr. Francis Thomas Virginia State University S. SUDAN: Dr. Adnan Yousuf

Research Area: Animal Science

BHEARD PROGRAM START DATE: September 2014

UNDERGRADUATE EDUCATION: Animal Science, University of Juba, SOUTH SUDAN

RESEARCH INTERESTS: Animal Nutrition

Emmanuel is especially interested in using agro-industrial by-products as animal feed and developing nutritious feed for sheep and goats. He is interested in animal nutrition because African countries are rich in animal resources. “It is estimated that the Sudan (north and south) has about 39.5 million head of cattle, 48.9 million head of sheep, 42.2 million head of goat and 3.9 million head of camel,” says Emmanuel. “Approximately $\frac{1}{4}$ of these cattle and smaller proportion of the sheep and goats are found in the South Sudan, yet a large percentage of the population suffers from an acute shortage of animal protein. A prime factor that creates this problem is lack of quality animal feed, which reduces the productivity of livestock.” Emmanuel says South Sudan’s perceived food insecurity is “odd” given the country’s “tremendous potential agricultural resources and livestock.”

Emmanuel says the use of agro-industrial by-products as animal feed—whereby animals are kept under zero grazing—is very important to bridge the shortage of animal feed, enhance animal nutrition, and reduce human hunger and poverty. “For example, there is a major brewery factory in Juba South Sudan capital that produces spent brewers grain and waste yeast that could be used as animal feed but it is currently just disposed of. While this agro-industrial by-product is potential

feed source, it is low in energy and effective protein content and would require a good knowledge of nutrition to formulate quality rations,” says Emmanuel. Emmanuel adds that the productivity of rangeland is declining all over the Africa. “This increases the importance of agro-industrial by-products, particularly cereal straw (sorghum, wheat, millet and rice), sugar cane by-products (bagasse, molasses and sugar cane top), and groundnut and cotton by-products as potential feedstock for livestock.”

PERSONAL STATEMENT:

Emmanuel’s academic goals are to use his knowledge obtained in collaboration with other researchers at the University of Juba, Virginia State University and elsewhere to establish an Animal Research Center in Juba with objectives of enhancing and improving livestock production and training students and local farmers in the region. “My ultimate professional goal is to contribute to scientific research in the field of animal nutrition and improvement of livestock production in the South Sudan particularly and Africa as whole.”

When Emmanuel is not working, he enjoys reading books, magazines, newspapers, listening to radio and practicing soccer and doing exercise.