



2014 BHEARD Scholar  
**Theophilus Kwabla  
Tengey**

# Profile

<b>Country of Study:</b>	USA
<b>University:</b>	Texas Tech University
<b>Department:</b>	Plant and Soil Sciences
<b>Student Position:</b>	Graduate Research Assistant — Ph.D.
<b>Home Country:</b>	Ghana
<b>Home Institution:</b>	CSRI-SARI, Tamale
<b>Home Position:</b>	Research Scientist
<b>Mentored By:</b>	US: Dr. Mark Burrow and Dr. Venugopal Mendu

## *Research Area: Crop Science*

**BHEARD PROGRAM START DATE:** August 2014

**HOMETOWN:** Tegbi, Volta Region, Ghana

**UNDERGRADUATE EDUCATION:** Agriculture, Kwame Nkrumah University of Science and Technology (KNUST), GHANA

**GRADUATE EDUCATION:** Agronomy, KNUST, GHANA

**RESEARCH INTERESTS:** Plant Breeding

Theophilus says a myriad of problems face the crop sub-sector in Ghana, which results in low yields and low income for farmers. Some of these problems include climate change, biotic and abiotic stresses, and pesticides. “Resource poor farmers rely mostly on the use of pesticides to control disease and insect pests,” says Theophilus. He adds that the high costs of pesticides cut into farmer’s profits and that their use/misuse poses serious health and environmental hazards. Instead, Theophilus says farmers need “biotic and abiotic stress resistant” crop varieties. Theophilus’ current research in Marker Assisted Selection is geared towards developing and using Single Nucleotide Polymorphism (SNPs) markers to identify “leaf spot disease” resistant peanuts. He hopes this research will be applicable to the broad field of plant breeding.

### **PERSONAL STATEMENT:**

Theophilus’ wants to use the latest molecular biology techniques to speed up conventional plant breeding processes. He hopes this will lead to the “rapid release of crop varieties that are well

adapted to the changing climatic conditions as well as biotic and abiotic stresses.” He wishes to contribute to the training of the younger generation in plant breeding and genetics “to increase the pool of scientists and technicians who will help revolutionize Ghana’s agriculture.”

In his spare time, Theophilus enjoys listening to music and news across the world, reading, and traveling.