Country of Study: United States
University: University of Minnesota
Department: Applied Plant Sciences
Student Position: Graduate Research Assistant—Ph.D.
Hometown: Nairobi, Kenya
Home Institution: Kenya Agricultural and Livestock Research Organization, Food Crops Research Centre-Njoro
Home Position: Research Assistant
Mentored By: Home: Dr. Godwin Macharia
USA: Dr. James A. Anderson, Professor, Plant Breeding/Molecular Genetics Dept., University of Minnesota

Research Area: Applied Plant Sciences: Plant Breeding/Molecular Genetics

BHEARD PROGRAM START DATE: September 2015

UNDERGRADUATE EDUCATION: B.Sc., Biomedical Laboratory Technology, Makerere University, Uganda

GRADUATE EDUCATION: M.Sc., Biotechnology, Jomo Kenyatta University of Agriculture and Technology, Kenya

RESEARCH INTERESTS: Cyrus’s interest is in plant molecular genetics and genomics. Cyrus believes that plant molecular genetics and genomics can help solve most of the challenges affecting crop production in Kenya and beyond. Over the years he has observed that even though there is a lot of plant research going on in his home country, the molecular genetics and genomics tools are rarely used or are underutilized.

Cyrus’s research will involve identifying disease resistance genes in wheat that provide resistance to a highly virulent mutant strain of the pathogen called Puccinia graminis f. sp. Triticci. The mutant strain also known as ‘Ug99’ is currently causing massive yield loss in wheat and poses a threat to food security. Back at home at the Kenya Agricultural and Livestock Research Organisation, research on combating the disease has become a major priority and resulted in an international collaboration project known as the Durable Rust Resistance in Wheat project.

Cyrus plans to acquire all the knowledge and skills he can get in his Ph.D. program so that he can go back home and strengthen the molecular genetics and genomics aspect of research, hence expedite the search for a solution to this destructive wheat disease.
Cyrus also intends to transfer the skills and techniques to provide solutions to constraints affecting productivity in other crops.

**PERSONAL STATEMENT:** Given Cyrus’s current training in plant molecular genetics and genomics he intends to pursue research in that area. His main objective is to do applied research in this area on major crops like wheat, soybean, sorghum, maize as well as other ‘orphaned’ crops like cassava and sweet potato so as to increase their productivity. He also intends to mentor and train other scientists and students on this area to increase the number of scientists who are proficient in the molecular genetics and genomics tools. With this Cyrus hopes to eventually contribute to the overall objective of enhancing food security in Kenya and beyond.

**WHEN I AM NOT WORKING I ENJOY:** The activities Cyrus most enjoys doing during his free time are hiking, camping, playing soccer, playing basketball, swimming, watching movies, listening to music, mixing music, dancing and attending different social functions. Cyrus also enjoy cooking and keeping fit!