

2015 BHEARD Scholar Alice Kabeja

Profile	
Country of Study:	United States of America
University:	University of California-Davis
Department:	Plant Sciences
Student Position:	Graduate Research Assistant—Ph.D.
Home Country:	Rwanda
Home Institution:	Ministry of Agriculture, Rwanda Agricultural Board
Home Position:	Associate Research Fellow
Mentored By:	Dr. Gasore Elie Rene Prof. Paul Gepts

## Research Area: Horticulture and Agronomy

## BHEARD PROGRAM START DATE: January 2016

UNDERGRADUATE EDUCATION: B.Sc., Crop Production and Horticulture, University of Rwanda,

**GRADUATE EDUCATION:** M.Sc., Plant and Animal Resource Management in Tropical Environment, University Academy Wallonia-Europe, Belgium

**RESEARCH INTERESTS:** Alice is interested in Bean Common Mosaic Virus/Bean Common Mosaic Necrosis Virus (BCMV/BCMNV). She will focus her research on the gene ecology of the BCMV/ BCMNV pathogen in the common bean environment of Rwanda. An effective control of a crop disease requires a combined approach of introducing host resistance targeted to the actual diversity of the viral pathogen present in the target area of the breeding program, minimizing the role of alternate hosts, and promoting the use of virus-clean seeds. This approach involves the study of the interaction of BCMV/BCMNV variation with common bean as a function of the bean host resistance, its transmission through the seeds, and its environment (the existence of alternative hosts). Each activity individually may be insufficient to develop an effective control method of this disease. However, a combination of several approaches will be more effective and stable than any individual approach. She hypothesizes that if the variability and biology of the BCMV/BCMNV pathogen is well understood, then it will assist in developing a resistance in common bean that is broader and stronger.

**PERSONAL STATEMENT:** Alice's future goal is to contribute to food security by breeding beans for high yield and better nutrition.

WHEN I AM NOT WORKING I ENJOY: Alice enjoys taking care of her kids, having time for herself and praying.