

FABIANS CELEBRATE THE THIRD PHD PRESTIGE SEMINAR OF THE YEAR!

Phathie Sibanda is the latest postgraduate student at FABI to complete a PhD degree in 2017. She marked the occasion by delivering her prestige seminar in front of her family, friends and colleagues on 22 March. This was followed by a successful defence of her PhD thesis in an oral exam with Dr Frederique van Gijsegem from the Department of Plant Health and Environment at the French National Institute for Agricultural Research, France, and Prof. Fanus Venter of the Department of Microbiology and Plant Pathology at the University of Pretoria as external examiners.



Phathie completed her research project under the supervision of Prof. Teresa Coutinho, Prof. Lucy Moleleki and Dr. Divine Shyntum. She summarised her research findings in her presentation titled “Functional analysis of quorum sensing in *Pantoea ananatis* LMG 2665T”. *Pantoea ananatis* is a bacterium that causes disease symptoms in

economically important food crops such as maize, sorghum and pineapple as well as *Eucalyptus*.

Phathie discussed the quorum sensing systems of the bacterium, a process of cell-to-cell



communication that involves the production, detection and response to autoinducers that is also important for understanding multi-gene expression. Quorum sensing helps prevent the expression of pathogenicity factors until bacterial cell densities are high enough for a successful infection. The study will deepen understanding about host-pathogen interactions and help in

the development of measures to control infection and disease caused by the bacterium.