NMMU's home-grown veggies on North Campus

Since 2012, our 2nd year Agriculture students have been managing the vegetable garden situated on the Lebombo Residence on North Campus, planting spinach and onions.

Under the guidance of Mr Tim Pittaway, lecturer in Agriculture and Ms Leonie Beckett, residence manager of Lebombo Residence, a group of 8 students from the 2nd year Agriculture course manages the vegetable garden. Independently, they practice all the cultivation methods as part of their practical studies.

The vegetables grown are donated to the Health clinic thereby contributing to the food for the needy.

Protection of citrus crops against the False Codling Moth infestation

Researchers in the Departments of Biochemistry and Physics, led by Dr Gill Dealtry and Prof Mike Lee, are working with Dr Sean Moore at Citrus Research International and River Bioscience to improve the production and use of *Cryptophlebia leukotreta* granulovirus (CrleGV) as a viral biopesticide. This virus is sprayed onto citrus trees to control the False Codling Moth, whose larva feeds on the fruit, damaging it and making it unsuitable for sale. Alternative control is by spraying chemical pesticides which affect other insects and harm the environment. The CrleGV virus only infects the False Codling Moth following ingestion by the moth larva when it feeds on the fruit. A minimum concentration of the viral biopesticide must be maintained on the trees to ensure all the moth larvae are killed.

A Biochemistry Masters student, Busisiwe Dhladhla who graduated in 2012, has developed electron microscopy and DNA analysis methods to quantify the virus and to investigate its structure. This work was presented in two talks at the Microscopy Society of Southern Africa meeting in December 2012. Patrick Mwanza, a new Masters student, is now applying these techniques to determine the effects of UV light on the virus. It is known that exposure to sunlight damages the virus occlusion body and DNA and thus kills the virus. Therefore the virus biopesticide needs very frequent reapplication.

Patrick's work will provide an objective measure of the rate of virus damage under differing orchard conditions and will determine the necessary frequency of reapplication. He will also analyse the virus structure using Transmission Electron Microscopy, Raman spectroscopy and X-ray crystallography to discover how sunlight damages the virus.

Research Associate meet and greet

We hosted our annual "Meet and Greet" cocktail function for Research Associates in the Faculty on Monday 25 February. This is always a special occasion, providing the Faculty with an opportunity to recognise the RAs appointed in our various Departments and Research Entities. It is also a time for RAs to meet each other,

Each RA contributes specialised expertise to our research activities. We are indebted to them and recognise the valuable contributions that they continue to make to the NMMU and our Faculty.

We currently have more than 60 RAs in our Faculty, and several travelled from far to attend the cocktail function. Attending the function were (from left): Dr Mark Difford, Dr Ayanda Sigwela, Dr Denise Schael, Dr Shirley Parker-Nance and Dr Gavin Snow.