

SA GRAPE AND WINE RESEARCH INSTITUTE

Programme/Project Info for Prospective MSc and PhD Students

PROGRAMME: GRAPEVINE X ENVIRONMENT X MANAGEMENT INTERACTIONS (GEMS)

The study of grapevines in interaction with their biotic and abiotic environments.

In this GEMS programme research is being conducted that integrates aspects of vineyard characterization in terms of the site and climate, as well as the performance of the grapevines in terms of growth and fruit production and ripening. Very often, model vineyards are used to evaluate the impacts of particular abiotic, or biotic stresses to inform, or improve management practices. These projects typically span from the vineyard to the final products (wine or table grapes) and is therefore integrating different types of data. The use of remote sensing tools and/or the development of novel sensors to monitor the grapevine responses is also a key driver. Several academics contribute to this programme and a range of viticultural, physiological, molecular, analytical and advanced data analyses tools are routinely used. Students from diverse backgrounds (even if you do not have a background in Viticulture and Oenology) would be able to contribute to the research of this programme.

OPPORTUNITIES FOR 2020

1. Characterisation of model vineyards using profiling technologies	<ul style="list-style-type: none">• Melane Vivier and Philip Young [SAGWRI], in collaboration with Prof Johan Trygg (Umea University, Sweden)• MSc student• To discuss project: Melane Vivier mav@sun.ac.za and Philip Young pryoung@sun.ac.za
2. Characterisation of berry shrivel in <i>Vitis vinifera</i> L.	<ul style="list-style-type: none">• Erna Blancquaert, in collaboration with Dr Michaela Griesser (BOKU : University of Natural Resources and Life Sciences, Vienna, Austria)• Hons student• To discuss project: Erna Blancquaert ewitbooi@sun.ac.za
3. Grapevine's Response to Water Stress Using Different Scion/Rootstock Combinations	<ul style="list-style-type: none">• Melane Vivier [SAGWRI]• Hons/MSc students for water stress projects• To discuss project: Melane Vivier mav@sun.ac.za
4. Water use efficiency and water foot print assessment of table grape	<ul style="list-style-type: none">• Eunice Avenant [SAGWRI]• Hons/MSc students for water use projects• To discuss project: Eunice Avenant avenant@sun.ac.za

production systems (conventional and under overhead protection).	
5. Table grapevine's response to GA ₃ and other plant bioregulator treatments to optimise yield and production.	<ul style="list-style-type: none"> • Eunice Avenant [SAGWRI] • Hons/MSc students for plant bioregulator projects • To discuss project: Eunice Avenant avenant@sun.ac.za

GENERAL CONTACT INFORMATION

To apply:	Lorette de Villiers ; lorette@sun.ac.za ; tel 021 808 3770
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