AGRI WETENSKAPPE SCIENCES

UNIVERSITEIT STELLENBOSCH UNIVERSITY

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UNIVERSITEIT STELLENBOSCH UNIVERSITY

AGRI SCIENCES WETENSKAPPE

Ten new Agri PhDs capped

From tiny insects that invade plum orchards to invasive wasps, from diseases in grapevines, lions, leopard and apples to Nguni cattle genetics, forest ecosystems, rhino conservation and flood management – these topics were covered by the Faculty's newly capped PhDs.

Entomologist Elleunorah Allsopp researched a push-pull strategy to better control western flower thrips (*Frankliniella occidentalis*) in deciduous fruit orchards. These tiny insects enter plum blossoms before the petals open, and then lay their eggs in the flower parts. Allsopp showed that the insects are deterred from doing so when certain plant essential oils are applied to plum blossoms. White clover was found to be a good prospect for planting as a trap crop next to orchards to help lure the insects away from orchards.

Plant pathologist Annabella Baloyi worked on a grapevine trunk disease called Petri disease that affects the productive lifespan of vineyards worldwide. Her research highlights the importance of pruning wound protection, since the fungi that cause Petri disease in South Africa release their spores at the same time as the winter and spring pruning seasons.

For her PhD in Horticultural Science, Irene Idun found out more about the qualities that South African consumers look for when buying apples. In general South Africans favour sweeter apples. Younger consumers between 18 and 25 years had a greater preference for firmer and more sour apples than older consumers, and preferred green apples. Marketing opportunities therefore exist for less familiar sweet tasting cultivars such as 'Fuji', while consumer groups with other preferences should not be neglected.

Conservation ecologist Tanya Kerr investigated how the Feline Immunodeficiency Virus (FIV) spreads and evolves among lions and leopards. She used the presence of the virus to show how different groups of animals move around and possibly interact with each other.

Plant pathologist Trevor Koopman established that many different races of the apple scab causing fungus *Venturia inaequalis* occur in South African orchards, and that some are more virulent than others. The types found in the Elgin region are genetically quite unique. Koopman developed a screening test for the presence of the fungus in tissue, and to establish which fruit cultivars are more resistant than others.

The PhD graduates (fltr): Prof Danie Brink (wnd Dekaan), Drr Carolina van Zyl, Sylvanus Mensah, Trevor Koopman, Irene Idun, Ilse Kotzee, Mahlatse Baloyi, Tanya Kerr, Elleunorah Allsopp, Margretha Wang en Jeff Muntifering.

Vlnr: Nicola Kirsten (Hofmeyer-Van Schaik), Stefanus Rossouw (Farmers Weekly-Eckart Kassier), CP van der Merwe (Prof PA van der Bijl), prof Danie Brink (wnd Dekaan), Dehaan van Veenendaal (Sir William Schlich) en Maryke Botha (Prof Al Perold)

Apart from the ten new PhDs, the Faculty of AgriSciences also produced 15 honours students, 32 masters students and 230 undergraduates (including 57 from Elsenburg) also graduated.

Ilse Kotzee delved into new and improved ways to manage floods. Landscape managers can use results from her PhD in Conservation Ecology in areas which have limited data for process-based models or the capacity to interpret model outputs.

Sylvanus Mensah's PhD research in Forest Science was done in Limpopo's mistbelt forests. He obtained new information about how the forest ecosystem contributes to the livelihood of local communities. Aspects of the forest' carbon sequestration and honey production potential were taken into account.

Jeff Muntifering's PhD in Conservation Ecology provides food for thought on how tourism can help black rhino conservation in Namibia. He says that community-based conservation and tourism strategies can serve as a good foundation to help combat rhino poaching by improving the value local people attach to conserving rhino. The study produced a clear, transferable set of prototypical elements that will help ensure sustainable expansion of Namibian rhino conservation tourism ventures – and beyond.

Entomologist Carolien van Zyl investigated how two invasive wasp species, the German wasp (*Vespula germanica*) and the European paper wasp (*Polistes dominula*), were introduced to South Africa. She tested a range of lures and baits that could be used to monitor and control invasive wasp populations in the Western Cape.

Animal scientist Margretha Wang studied the genetic diversity of Nguni cattle, and the significance and distribution of so-called copy number variations. This type of genetic mutation consists of deletions or duplications in the genome larger than 1kb. She developed a protocol to identify these mutations.

KALENDER 2017

02 Jan	Universiteitskantoor heropen
13	Laaste dag vir inlewering van aansoeke om hertoelating
19	Eerstejaar-ouers ontmoet Dekaan (14:30)
20	Verwelkoming van eerstejaarstudente
30	Aanvang van klasse
1 Feb	ASA Afskopfees vir Eerstejaars
10	Laaste dag vir laat registrasie (buiten nuwe M- en D-studente
25	US Opedag
28	Laaste dag vir inlewering van aansoeke vir M- en D-programme

Teleconferencing facility comes available

The Department of Agricultural Economics in collaboration with the Dean's office of the Faculty of AgriSciences has installed a new teleconferencing facility in the JS Marais building, White Room (seating 15).

The system consists of a high-power hosting computer with dual 55-inch Dell monitors, a high definition webcam and microphones. Whilst the system is focussed on facilitating functional remote meetings, it can also be used for webinars or remote guest lectures for graduate students and faculty.

A major advantage of the system is its versatility. Users can conduct their meeting through Skype, but the Faculty has also secured a Vidyo profile through IT. Vidyo creates a virtual meeting room which participants can access through a dedicated computer, tablet or smartphone application. Alternatively, they can join the meeting through a special weblink via their browser and if all else fails, they can even dial in through local- or international telephone landlines.

In addition to the versatility, Vidyo also has the advantage of hosting the meeting locally thereby ensuring the highest possible sound and video quality. In other words, the data does not have to travel between participants and an external hosting server as with Skype. For more information on Vidyo go to : http://bit.ly/2fR1kRV

The system is available for use by the staff of the Faculty of AgriScience. To make a reservation contact Karin Vergeer (ccav@sun.ac.za) or Elizabeth von Wechmar (ekvw@sun.ac.za).

Congratulations to Dr Benoit Divol, senior lecturer in Oenology in the Department of Viticulture and Oenology, on achieving his new NRF rating (C2 category) based on the quality and impact of his research outputs of the past six years.

Three 2016 Veritas Medals for *Die Laan* wines

The Veritas Awards, presented by the South African National Wine Show Association (SANWSA), is the longest running and most prestigious wine competition in South Africa and is synonymous with excellence in wine. Wine cognoscenti and consumers view a Veritas award as an unrivalled seal of quality. We are thus proud that three of our *Die Laan* wines, produced by Mr Riaan Wassüng and his winemaking team at the Welgevallen Cellar, each received a Veritas Award at the recent 2016 gala prize giving event: *Die Laan* Merlot 2015 bagged a Gold Veritas Medal, a Silver Veritas Medal was awarded for the Cabernet Sauvignon 2014 and a Bronze Veritas Medal for *Die Laan* Chenin blanc 2016.

Fakulteit gee eerste keer beurse aan uitblinkers

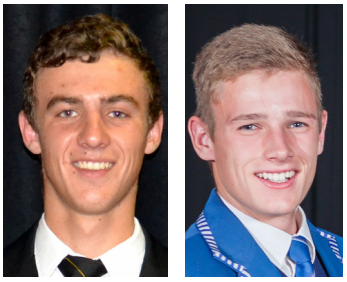
Twee leerders van landbouskole in die Wes-Kaap is 'n kans van 'n leeftyd gebied deurdat die Fakulteit AgriWetenskappe studiebeurse aan hulle toegeken het. Matthys Basson van Hoër Landbouskool Boland buite die Paarl en Nicolaas Basson van Hoër Landbouskool Oakdale op Riversdal is die topstudente uit hulle onderskeie skole wat in 2017 'n landbouverwante program aan die US gaan volg.

Matthys, wat ook Boland Landbou se topstudent in Landbouwetenskappe is, het op Vanrhynsdorp grootgeword, en Nicolaas is van Villiersdorp.

Die beurse ten bedrae van sowat R40 000 elk sal hulle klasgelde dek. Matthys beplan om 'n BScAgric in Plant- en Grondwetenskappe te studeer, en Nicolaas gaan 'n BScAgric-graadprogram volg. Nog 'n wortel voor hulle neuse is dat die beurs jaarliks toegeken sal word vir die normale duur van hul studieprogram, mits hul al hul modules slaag en hulle kursusse voltooi.

"Ons wens hulle alle sterkte met hul studies toe en hoop dat hulle in die jare wat kom ook binne die Suid-Afrikaanse landbougemeenskap hul merk sal maak," sê prof Danie Brink, waarnemende dekaan van die Fakulteit AgriWetenskappe.

Dit is die eerste jaar dat die Fakulteit AgriWetenskappe hierdie beurse beskikbaar stel aan akademiese uitblinkers van landbouskole in die provinsie. Dit is moontlik gemaak danksy die fakulteit se Dekaansfonds, wat sowat sewe jaar gelede op die been gebring is om ekstra finansiële ondersteuning aan studente en voornemende landbou-studente te bied. Die Fonds word onder meer deur die fakulteit se oud-studente en bedryfsvennote onder-



Matthys Basson en Nicolaas Basson

steun, asook 'n Gholfdag wat jaarliks gehou word.

Monika Basson, wat aan die spits staan van die Fakulteit AgriWetenskappe se studentewerwingsaksies, sê die beurse dien as beloning én aansporing vir die leerders se toewyding gedurende hulle skoolloopbane. "Dit erken ook die besondere werk wat in ons landbouskole gedoen word om kundigheid in die plaaslike bedryf te ontwikkel."

Top honour for Cletos Mapiye

Dr Cletos Mapiye, a senior lecturer in the Department of Animal Sciences, has been elected as a member of the South African Young Academy of Sciences (SAYAS).

The Academy provides a platform for young scientists to influence policy decisions that could contribute to the development of scientific capacity in South Africa through mentoring and role-modeling of future scientists, and also by fostering opportunities for interdisciplinary collaborations amongst young scientists.

Since its launch in 2011, SAYAS annually selects ten members on academic merit from institutions of higher learning and research across the country. Mapiye's research programme focuses on finding sustainable ways of manipulating meat quality and lipid composition to improve meat eating quality and shelf-life to ultimately produce a healthier product for the consumer.

Mapiye is a National Research Foundation Y2 (Young Promising) rated scientist, and a sub-editor of the *SA Journal of Animal Science*.

Special prizes to Stokwe and Kapp

HORTGRO, the horticultural industry's knowledge group, recently presented a 'Researchers Thank You Breakfast' at Mont Marie Restaurant in Stellenbosch. This annual event, hosted by *HORTGRO Science, the research engine of HORTGRO,* was in recognition of work done by researchers, peer work group members, technical advisory committees and the Advisory Council.

On this occasion, two members of the Department of Conservation Ecology and Entomology were awarded special prizes. The prize for the HORTGRO *Science Best Crop Protection Final Report* entitled: "Potential control of woolly apple aphid (*Eriosoma lanigerun*) using entomopathogenic nematodes", submitted during the 2016 project cycle, went to Dr Nomakholwa Stokwe, a newly appointed full-time Nematology lecturer, in the IPM group of the Department. The prize for the *HORTGRO Science Best Semi-Scientific Article* for 2016, entitled: "Nematode indicators for soil health monitoring of the Orchard of the Future at Oak Valley" was awarded to PhD student, Caro Kapp.

Award winners of HORTGRO Science, PhD student Ms Caro Kapp (left) and Dr Nomakholwa Stokwe.

The Department is immensely proud of this honour which was bestowed on them by one of its major industry funders for quality work.

Stuart Knott dies unexpectedly

During October the Faculty was saddened to learn of the unexpected passing of Stuart Knott, who obtained his Master's degree in Agricultural Economics in the Faculty in March of last year. His untimely death occurred while he was competing in a trail run event near Stellenbosch.

Before enrolling at Stellenbosch Stuart studied at the University of Reading in the UK where he obtained a BScAgric degree. Stuart initially furthered his studies in order to restructure his career after having lost everything in Zimbabwe due to the 'land reform' policies of President Robert Mugabe.

He was a keen student, somewhat older than his classmates, but always brimming with energy and an insatiable need for information. He furthered his career at Elsenburg Agricultural College where he worked on the Micro Combud programme, managing to get it up and running again for the first time in about eight years.

Help Eeufeesboek saamstel

Vieringe rondom die honderdjarige bestaan van landbouonderrig op Stellenbosch vind saam met die Universiteit Stellenbosch s'n plaas, wat amptelik op 2 April 1918 tot stand gekom het.

Om dié besondere mylpaal te gedenk, beplan die Fakulteit AgriWetenskappe 'n spesiale publikasie. "Ons wil graag 'n grootse poging hiervan maak en 'n behoorlike historiese oorsig oor ons bedrywighede die afgelope 100 jaar vir die nageslag saamstel," sê prof Danie Brink, AgriWetenskappe se waarnemende dekaan.

Om 'n sukses daarvan te maak, het ons die hulp van ons getroue oudstudente nodig. Dalk het jy besonderse klasfoto's beskikbaar, of 'n foto van 'n dosent of twee besig met 'n proef? Laat weet vir ons oor hoogtepunte wat vir jou uitgestaan het, of oor nuwighede gedurende jou tyd in die fakulteit. Watter eerstes onthou jy, en watter mense het verder gegaan om 'n impak op die bedryf en wyer te hê?

Blaai dus hierdie vakansie weer 'n slag deur jou ou studente-albums, en stuur vir ons 'n foto of twee uit jou studentedae – cbruce@sun.ac.za is die e-posadres waarheen dit gestuur moet word.

- Dis verkieslik dat: foto's elektronies ontvang word; die resolusie daarvan goed is; oorspronklike foto's eers geskandeer en dan per e-pos aangestuur word; vergesel wees van 'n kort onderskrif ter verduideliking en die name (voorname en vanne – nie voorletters nie) van die mense wat daarop verskyn in volgorde.

Move to promote Aquaponics in SA

The Aquaponics Association of South Africa was recently established to represent and promote the interests of the national Aquaponics industry.

Henk Stander, who is associated with the Aquaculture Section of the Department of Animal Sciences in the Faculty, was elected to serve on the Association's Exco. The new body had its first annual general meeting (AGM) in October near Pretoria.

Aquaponics, the combination of aquaculture and hydroponics to utilise the nutrients released by fish to grow crops in the same system, is considered to be an intrinsically more natural and healthy way to produce crops, making the production of wholesome, organic products possible. The need for such an association was evident from the 30 paid-up members and the 50 membership applications that were received shortly after the first AGM.

Stander is also involved with the Aquaponics Unit on the Welgevallen Experimental farm. A new modular Aquaponics Research System is currently been designed for this unit.

Stander will chair the Aquaponics Session at the upcoming World Aquaculture Conference in Cape Town in 2017.

For more information, visit www.aquaponicssa.org info.

Henk Stander at one of the aquaponics dams of the Aquaponic Unit on the Welgevallen Experimental Farm.

IWWW Wingerdkunde onthaal VinPro-konsultasiespan

Die Wingerdkunde-platform van die Instituut vir Wingerd- en Wynwetenskappe se mandaat is om aktiwiteite binne die opleiding- en navorsingsomgewing vir wingerdkunde te versterk en uit te brei.

Die platform was onlangs gasheer vir die VinPro-konsultasiediensspan se besoek aan die wingerdkundige opleidingsfasiliteite in die Departement Wingerd- en Wynkunde. VinPro is nie net een van die befondsers vir die platform nie, maar word ook beskou as 'n belangrike rolspeler in die bedryf.

Prof Melanè Vivier en Dr Albert Strever het begin deur terugvoering te gee oor die IWWW Wingerdkunde-platform se vlagskipprojek wat uit twee afdelings bestaan – een is die robotika-projek wat die ontwikkeling van 'n wingerdrobot behels om uiteindelik outomatisering en intelligensie-sisteme in wingerdbou te bevorder. Die ander afdeling sluit in die beskrywing van die wyndruif-produksiesisteem, met die oog daarop om areas van lae kennis, maar groot impak, te identifiseer.

Vivier het benadruk dat een van die uniekhede van die vlagskipprojek is dat dit deurlopend die insette van die bedryf benodig sodat die produkte wat in ontwikkeling is, uiters fyn belyn is met die behoeftes en vraagstukke van die bedryf. "Hierdie interaksie met die VinPro groep is daarom geweldig belangrik en nuttig vir ons."

Gesellige interaksie tydens die wynproe.
(Foto: Lucinda Heyns)

'n Wynproe van Die Laan-wyne wat by Welgevallen se kelder gemaak word en besoeke aan die verskeie wingerdkunde-laboratoriums waar nagraadse studente nadere besonderhede oor hulle navorsing verskaf het, was ook deel van die program.

Francois Viljoen van VinPro meen die besoek was vir hulle 'n baie goeie ervaring. "Nie net om die nagraadse studente te ontmoet en te kon hoor waarmee hulle besig is nie, maar ons was ook baie beïndruk met die fasiliteite by ons Alma Mater en die hoë standaard daarvan ondanks beperkte fondse. Ons besef dat ons nouer met DWW wil saamwerk en meer gereeld hierdie tipe interaksies verlang."

Hortgro group invests millions in students

Hortgro has invested over R2,5m in bursaries and the development of students for 2016.

"Hopefully over time most of you will find your niche somewhere in our sector, specifically, but also in agriculture at large, where we know there are a lot of opportunities," Hortgro Executive Director, Anton Rabe, told a group of students at a cocktail reception held at the South African Plant Improvement Organisation (SAPO) Trust in Stellenbosch.

Hortgro has spent more than R20m on bursaries over the past ten years as an investment in budding agriculturalists.

Rabe said 65 students had received financial support and were spread across institutions, including the Elsenburg College of Agriculture, Cape Peninsula University of Technology, University of Limpopo, Pretoria University, and Stellenbosch University.

The students, predominantly from previously disadvantaged groups, were given a tour of the SAPO Trust facilities followed by a motivational talk by Hortgro Science Crop Production Programme Manager, Prof Wiehann Steyn.

Steyn, who was a Hortgro bursary holder at various stages of his academic career, used his personal story to encourage students.

Said Steyn: "All of you who are studying and have received a bursary are extremely privileged to be part of an elite group who is afforded the opportunity to study. I recognised this privilege provided me with enormous motivation when things got tough."

In the audience was a 22 year old Hortgro bursary holder with big dreams. Faith Mokapane is studying towards a BScAgric in Horticulture and Plant Pathology, and sees herself as a farm owner in the not too distant future.

But first she plans to further her studies. "I plan to do my Masters in postharvest pomegranate production," she said with much enthusiasm.

Budding agriculturists. HORTGRO bursary holders at the function in Stellenbosch, (from left) Lebotse Kamogelo, Faith Mokapane and Msizi Mdakane.
Photo: Elise-Marie Steenkamp

Indringer-wespes gepak, ondanks veertig steke in vier jaar

Om 40 keer in vier jaar deur perdebye gesteek te word, is meer as wat die meeste mense kan verduur. Dit is egter wat Carolien van Zyl deurgemaak het om haar doktorsgraad in Entomologie te behaal oor twee tipes indringer-wespspesies wat besig is om in die Wes-Kaap te versprei. Sy moes die pynlike steke verduur terwyl sy meer as 200 neste verwyder het. In die proses het sy darem kon vasstel dat daar moontlike inheemse bio-beheermaatreëls is wat gebruik sou kon word as alternatiewe, of saam met chemikalieë, om die insekte se voortgesette verspreiding te beperk.

Van Zyl het haar PhD-graad op 8 Desember vanjaar ontvang. Haar studieleier was dr Ruan Veldtman van die Universiteit Stellenbosch en die Suid-Afrikaanse Nasionale Biodiversiteitsinstituut. Hy is onder diegene wat betrokke is by die bestudering van die Duitse of Europese wesp (*Vespula germanica*) en die papierwesp (*Polistes dominula*), en planne maak oor hoe om hulle verspreiding in die Kaapse Blommeryk verder te verhoed.

Hierdie insekte het al na talle dele van die Wes-Kaap versprei, insluitend Kaapstad en die Bolandse dorpe Stellenbosch, Wellington en Franschhoek.

Van Zyl sê dié geel-en-swart gestreepte insekte het 'n voorliefde vir proteïene en suiker en word beskou as die "lastige familielid van die insekwêreld." Die Duitse wesp word al sedert 1974 in Suid-Afrika aangetref, en die papierwesp is die eerste keer in 2008 opgemerk.

Van Zyl sê hulle kom oorspronklik van Europa, Noord-Afrika en Asië, maar is deesdae albei wydverspreide plae.

Beheerpogings

Wetenskaplikes weet dat chemikalieë nie die enigste (of altyd die doeltreffendste) metode is om insekte te beheer nie. Daarom ondersoek navorsers soos Van Zyl en kollegas aan die Departement Bewaringsekologie en Entomologie die moontlikheid om verskillende soorte biologiese hulpmiddels, soos swamme te gebruik, wat die insekte en hul neste kan besmet, of om die wespe se natuurlike parasiete en vyande teen hulle in te span.

Dr Carolien van Zyl

Deur haar PhD-werk het Van Zyl vasgestel dat twee lewende bio-beheeragente – een 'n swam en die ander 'n mikroskopiese klein rondewurm genaamd 'n nematode – gebruik kan word om hierdie wespspesies uit te roei. Die presiese formulerings waarvolgens hierdie bio-beheeragente aangewend moet word, moet eers bepaal word voor dit suksesvol in die veld gebruik kan word.

Sy sê: "Noudat ons weet daar is lewende organismes, vermoedelik inheems aan Suid-Afrika, wat gebruik kan word om die wespe te beheer, het ons 'n platform geskep vir toekomstige navorsing om te ondersoek hoe goed hierdie middels buite die laboratorium sal werk. Dit is moet gedoen word voordat hulle grootskaals vrygestel word."

Van Zyl het aktiewe perdebyneste versamel gedurende die somer van 2013 en hulle na die laboratorium by die US geneem. Daar is die larwes in die neste bedek met verskillende vermengings van nematodes en swamme. Dié is dan 'n paar dae later gedissekteer.

Albei perdeby-spesies was hoogs vatbaar vir al die agente wat getoets is.

Putting a seal on Karoo lamb – *Certified Karoo Meat of Origin*

PhD STUDENT SARA ERASMUS (picture) started her postgraduate studies in Food Science in 2013 at a time when there was still no international legal protection for any indigenous South Africa products such as Karoo lamb, Rooibos and Honeybush being marketed overseas.

Sara's Karoo lamb research was inspired by researchers from the University of Pretoria who collaborated with Karoo farmers in 2010 to successfully register a certification mark under South Africa's Trade Marks Act. To use this mark on meat products a production and traceability protocol had to be registered with the Department of Agriculture and Fisheries (DAFF) as specified under the Agricultural Products Standards Act. Since 2011 these steps have ensured that only meat originating from the Karoo region may carry the "Certified Karoo Meat of Origin" mark in South Africa.

A great deal has since changed on the international front. On 10 October 2016 Karoo lamb received international protection similar to that which other regionally specific products such as tequila, port and champagne and Parma ham have. It secured geographic indicator (GI) status and therefore its so-called "naming rights" was through the Economic Partnership Agreement (EPA) between the Southern African Development Community (SADC) EPA Group and the European Union (EU). The processes driven locally and the impeccable traceability process implemented by abattoirs in the Karoo were sufficient for the EU to recognise Karoo Lamb's geographic indicator status via the certification mark.

The GI process was driven by Prof Johann Kirsten, formerly of Tukkies and now director of the Bureau for Economic Research at SU, along with the Karoo Development Foundation. A key aspect of a GI is its reputation and distinct sensory attributes that is usually attributable to a specific geography. Reliable scientific evidence among others had to be provided to EU officials to back up claims that Karoo lamb is regionally specific and has a unique taste.

In this regard, Stellenbosch University researchers – and Erasmus in particular – made valuable contributions. She started her postgraduate research under guidance of Prof Louw Hoffman, South African Research Chair (SARChI) in Meat Science: Genomics to Nutriomics in the Department of Animal Sciences and food sensory expert Ms Nina Muller of the Department of Food Science.

"To South Africans it is common knowledge that Karoo lamb has a unique taste because of the fragrant Karoo bushes the animals eat, but reliable evidence was needed to give substance to these claims," explains Erasmus.

To do so, she used different analytical methods, such as isotopes, and completed a descriptive sensory analysis. Some of her findings are published in journals such as Food Chemistry and Small Ruminant Research.

Through her sensory analysis, Erasmus confirmed Karoo lamb's unique sensory qualities and that it differs from lamb meat from other regions. It was proven that it has a more prominent and favourable lamb-like and herbaceous taste compared with lamb from other South African regions such as the Free State and Rûens, where the animals generally feed on grass and lucerne, respectively.

The research was taken to an international level when Erasmus went to RIKILT, a research institute of Wageningen University and Research (UR) in the Netherlands. There she used a state-of-the-art method known as proton transfer-reaction mass spectrometry under guidance of food authenticity expert Prof Saskia van Ruth.

Erasmus explains: "Unique chemical fingerprints are produced using this method and are used to determine the origin of food, or in this case meat."

Volatile compounds detected in Karoo plants were also picked up in the lamb meat and fat. These results verified the link between diet and meat, and showed that Karoo lamb is a product unique to its region of origin.

Van Rooyen shares SA cooperatives lessons in Cyprus

Prof Johan van Rooyen

Dealing with and becoming accustomed to the differences between cooperatives and companies is an important issue in the South African agricultural landscape. This was stated by Prof Johan van Rooyen, director of the Standard Bank Centre for Agribusiness Development in the Faculty of AgriSciences, at the first annual lecture of the Cooperative Central Bank held recently at the University of Cyprus.

Van Rooyen said that after the deregulation of markets in 1996, many cooperatives changed to companies. He went on to highlight some issues that could affect the performance of cooperatives negatively as based in: the classical free rider problem, the difficulty in selling your membership shares, the difficulty of using the value of shares on or after retirement and the relative inability to attract the "best" people as employees.

Van Rooyen pointed out that the shift to companies inevitably leads to competition, which is a good thing, but also tough and brutal. On the issue of possible lessons that Cyprus can learn from South Africa, he identified the following issues: the exposure to competition which, in the long run, is a good thing, the necessity for Universities and industry to jointly work on strategies to remain competitive, the realisation that income can come from non-traditional farming sources and the importance of having strong farmers and industry associations.

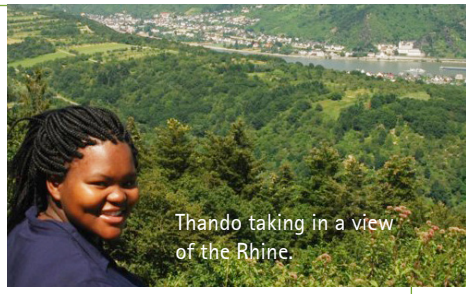
Students attending Vinitech-Sifel

The South African delegation (back row, from left): Mr Gerard Martin (Winetech), Dr Erna Blancquaert (SU), Ms Cara Kroep (student) and Mr Azolile Khoncoshe (student). Front row from left: Ms Kaylin Willscott (student) and Ms Ntsiki Biyela (Aslina Wines).

Three students, Kaylin Willscott, Azolile Khoncoshe and Cara Kroep of the Department of Viticulture and Oenology formed part of a South African delegation who attended Vinitech-Sifel in Bordeaux, France, from 29 November – 1 December.

The students participated in several technical visits organised by Interco-Aquitaine exploring different viticultural practices, winemaking styles, new technologies and bottling and packaging of products. The event showcased over 800 exhibitors and received thousands of visitors from all over the world. The sectors represented by the exhibitors included vineyards and orchards, wine production, bottling and packaging and services and training. Additionally, the students served some of the best South African wines to the visitors and told interested individuals about the possibilities of studying at Stellenbosch University.

Germany Workcamp in Rhineland-Palatinate



Thando taking in a view of the Rhine.

by Thando Myaka

The Forestry Office Kastellaun has been organising Forestry workcamps in Rhineland-Palatinate in Germany for almost 20 years to offer international forestry students the possibility to get to know the forestry in that area and in Germany. The Forestry workcamp this year took place in July and there were 12 students from various countries including Spain, Korea, Ireland, Greece, Canada, South Africa, Belgium and the Netherlands.

The Forestry Department and the AgriSciences Faculty offered me an opportunity of a lifetime by making it possible for me to attend this workcamp by sponsoring part of my trip. This event truly changed my life.

We arrived in Germany on 8 July and the programme officially started the following morning with a presentation given by the Director of the Rheinland-Palatinate State on the organisation of the forestry in the region, as well as an introduction to renewable energy production with windmills in the forest. We also learnt about forestry with hunting management, which was very interesting as such a thing is rare, if not non-existent, in South Africa.

The next couple of days were filled by the very educational and well-structured programme and among the many things we learnt is that Germany is one of the leading countries in the field of sustainable forest management, with some of the latest technology advancements in the industry. We got a taste of that by working with the Forestry manager planning a harvest. We also visited a Biosphere reserve.

My personal favourite was the trip to the 'House of Excellence' (KWIS-RLP) – a research institute for Climate Change, Forest Ecology and Forest Management, where we had to give presentations about the effect of climate change on Forests and their management in our respective countries. From there we went to the 'House of Sustainability' where we were introduced to various ways of 'green living' regardless of economic class.

Kastellaun is in the countryside and is culturally very rich, and inbetween the trips we got to know the region and the culture a bit better through site-seeing, interacting with the local people, enjoying traditional food, etc. We visited no less than four castles and went on a wine tour along the Rhine River. We also had group bonding as we ate 'German pizza and white sausages.'

In conclusion, I wish to state again that this trip was truly a life-changing experience, I learnt unique ways of managing forests sustainably and exchange dinformation and experiences with Forestry students from all over the world.

I will forever be grateful for the opportunity that was afforded me; my eyes were opened to so many possibilities. It inspired me to work even harder.

Visiting the PMA Fresh Summit event in Orlando

by Panashe Paul Mazungunye and Hardlife Sanganza

We had always wanted to go abroad before finishing our programme and then, at the beginning of the semester, came the announcement of the PMA Fresh Summit event. We both applied for the programme and are deeply grateful that the Faculty gave us the chance to travel to Florida in the USA.

The summit was a life changing opportunity with great lessons. Our perception of the fresh produce industry changed on the very first day; from seeing it merely as an industry with farms that produce vegetables and selling them to the retailers, to viewing it as an industry with many players operating in a sophisticated supply chain characterised by various business and economic growth opportunities as well. The demand for fruits and vegetables is booming mainly because their health benefits have been more transparent, especially now that people are more concerned about the type of food they eat. Both the growing demand and world population means that supply should be increased.

Apart from the lessons learnt, we enjoyed meeting other students, different people and representatives of various companies from across the world. We also saw some produce that we had never seen before. Meeting South African industry members at the Expo was equally amazing.

Hardlife Sanganza and Panashe Paul Mazungunye (left and second left) along with colleagues of the Fresh Summit, Orlando.

• *Thanks to our Faculty and the Centre for Growing Talent by PMA, for this opportunity. Also our financial sponsors: SU's International Office, Western Cape Department of Agriculture, Nico van Staden of Corefruit, and Monika Basson and Dr Elmi Lotze, who made every effort to ensure our visit to Florida was a success.*

AgriWetenskappe gholfdag 2016 weer 'n wenner!

"Die Fakulteit verleen jaarliks finansiële ondersteuning aan akademiese verdienstelike studente waarsonder baie nie hul studies sou kon voortsit nie. Daarom is ons diep dankbaar oor die positiewe wyse waarop industrievennote en ander ondersteuners die Fakulteit AgriWetenskappe Gholfdag ondersteun, en sodoende ook 'n beursfonds waarby ons behoeftige studente direk kan baat."

Só het prof Danie Brink, waarnemende dekaan van die Fakulteit AgriWetenskappe, by die sewende jaarlikse Fakulteit AgriWetenskappe Gholfdag wat op 17 November op De Zalze Gholfbaan plaasgevind het, gesê.

"Deur die Fakulteit AgriWetenskappe-beursfonds kan ons die studieplanne van voornemende en huidige voorgraadse en nagraadse landboustudente gedeeltelik ondersteun, en kan ons bou aan 'n kundigheidsbasis wat uiters belangrik is vir 'n florerende Suid-Afrikaanse landbousektor en voedselbedrywe," het hy bygevoeg.

Wenners! Dried Fruit Technical Services het met die louere weggestap. Vlnr: Monika Basson (mede-organiseerder), prof Danie Brink (waarnemende dekaan van AgriWetenskappe) Dappie Smit, Louis van Zyl, Carin Bruce (organiseerder) en Peter Dall. David Smit jnr was afwesig toe die foto geneem is.

Bedankings | Acknowledgements

Die Gholfdag is ten bate van die Fakulteit AgriWetenskappe se Beursfonds, wat aangewend word vir finansiële steun aan voor- en nagraadse studente wat hul vir studies in die landbou inskryf. Die Fakulteit se opregte waardering aan die volgende individue en instansies vir hulle bydraes om die beursfonds te verstewig en só by te dra dat genoeg kundiges gelewer word om Suid-Afrika se belangrike landbou- en voedselbedrywe te ondersteun.

The Golf Day is in aid of the Faculty of AgriSciences' Bursary Fund. These funds are used to provide financial assistance to students who enroll for under- and postgraduate studies in agriculture. The Faculty's sincere appreciation to the following individuals and companies for their contributions towards the bursary fund in an effort to ensure that enough skilled professionals are trained to make a difference in South Africa's important agricultural and food sectors.

Mede-borge

Lancewood Holdings, Cornél Lodewyks
Nexus AG, Johann Swart
Yara Cape, Jurie de Kock
Gholfspanne
Agrifusion (Edms) Bpk
Agrimotion
Antonij Rupert Wines
Arysta Lifescience SA (Edms) Bpk
Bester Voer en Graan (Edms) Bpk
Bidvest Waltons
Capital Harvest
Capitec Bank
Dept. Agronomie (US)
Dept. Veekundige Wetenskappe (US)
Droë Vrugte Tegniese Dienste
Freshworld (Edms) Bpk
Fruitways (Edms) Bpk
Hortgro Science
KaapAgri Bedryf (Edms) Bpk
Laastedrif Boerdery
Lancewood Holdings, 'n Divisie van Libstar Holdings (Edms) Bpk
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NexusAG
Old Mutual Finance
Overberg Agri Bedrywe (Edms) Bpk
Philani Training & Development Solutions
Price Waterhouse Coopers
Riparian Commodities
RSA Groep
SA Kalk en Gips
Spijkerman & Van Wyk Oogkundiges
Sentraal-Suid Koöperasie Bpk
Suiderland Plase
Vinpro
Yara Cape
Zest Fruit (Edms) Bpk

Putjieborge

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Alltech, Chanel van Heerden
Bidvest Waltons, Chido Nenguke
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Fruitways (Edms) Bpk, Hein Keulder
Hasqvarna Groep, Jacqui Cochran
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Katjiepiering Restaurant, Neil Lambrechts
Laastedrif Boerdery, Rossouw Cillié
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Land Rover, Marius Hamman & Wynand Tredoux
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Longridge Restaurant, Anne de Jager
Majeka House, Lloyd van der Merwe
Marius Huysamer
Maties Reisburo / City Lodge Courtyard, Charlee Scholtz
Middelvlei, Jeanneret Momberg
Mooiberge, Beverley Zetler
Nanibees, Frances Visagie
New Media, Thanaa Moosa
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NexusAG, Johann Swart
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