

INHOUDSOPGAWE • CONTENTS

Click on links / Klik op skakels

1

KALENDER
2015



Nuwe projek
peil hoe
kultuurgroepe
wyn ervaar



Climate change
sure to affect
farmers' profit
margins



Intreerendes fokus op kos en wyn

2



Nick Kotzé vat leisels oor



Giverson is
spreading
his wings



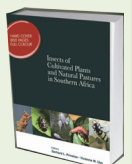
Tshoni on
cover of
magazine



Terisa na
Houston vir
veekongres



New IGWS appointments to
the Sensory Facility



Book on
phytophagous
insects

3



Alison's involvement boosts Indian
crocodile project



Biltong
research on
tropical island



Akwaponikastelsel oortref verwagtinge



Omgewingsimpakstudie
afgehandel

4



Hoë eerbewys vir twee
voerste akademici



Stellenbosch colours
show yet again



Students
excel at
national
Plant
Pathology
Congress



Soil Science postgrads
bag top awards at
combined Congress



Voedselwetenskap-studente
palm IPISA
Gold Pack-toekennings in

5



Horticultural
Science researchers
in Israel



Horticultural Science researchers
address post-harvest industry



Nuwe Webtuiste stal
werk van vleiskundiges
ten toon
(www0.sun.ac.za/sarchi)



Spotlight on commercial aquaponics
and aquaculture

Eerstejaars
welkom laat
voel



UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

AGRI SCIENCES WETENSKAPPE

Nuwe projek peil hoe kultuurgroepe wyn ervaar

Wat dink Suid-Afrikaners oor die wyn wat hulle drink? Verskil die menings en gewaarwordinge van landgenote uit verskillende kultuurgroepe in dié verband? Wat laat hulle besluit om 'n spesifieke bottel te kies en te geniet? Dit is van dié vrae wat wynnavorsers dr Hélène Nieuwoudt en kollegas in die Fakulteit AgriWetenskappe wil beantwoord deur 'n nuwe projek wat pas van stapel laat loop is.

Die mening van wyngebruikers in die Wes-Kaap, KwaZulu-Natal en Gauteng sal onder meer deur opnames en wynproe-panele getoets word. Deelnemers sal onder meer gevra word hoe spesifieke wynstyle vir hulle proe, ruik en lyk, en ook hoe hoog hulle die gehalte daarvan ag. Hierdie inligting sal verwerk word om sogenaamde sensoriese profile op te stel wat die spesifieke voorkeure van mense uit verskillende marksegmente omskryf.

Nieuwoudt hoop om danksy die insigte van fokusgroepe 'n verteenwoordigende prentjie te verkry van gereelde SA wyndrinkers se opinies. "Ons wil weet wat die persepsies van die man op straat oor wyn is, en wil daarom nie net die mening van opgeleide wynproeërs insluit in ons opname nie."

Die driejaar-projek word behartig deur Nieuwoudt en ander navorsers van die Departement Wingerd-

en Wynkunde se Instituut vir Wynbiotegnologie en die Instituut vir Wingerd- en Wynwetenskap. Dit word befonds deur die Suid-Afrikaanse Departement van Wetenskap en Tegnologie, nadat die wynnavorsingsnetwerk, Winetech, onder meer daarvoor gemotiveer het.

Opnames sal ook gedoen word oor gebruikspatrone en die faktore wat wynaankope beïnvloed. Daar sal onder meer hierin saamgewerk word met prof Nic Terblanche van die Departement Ondernemingbestuur aan die Universiteit Stellenbosch, en sakelui uit die privaatsektor.

"Inligting wat danksy die projek ingesamel word, sal onder meer help om Suid-Afrikaanse wyne plaaslik baie meer spesifiek onder landgenote van verskillende groeperinge te

bemark," glo Gerard Martin, uitvoerende bestuurder van Winetech en ook direkteur van die US se Instituut vir Wingerd- en Wynwetenskap. "Vir die vooruitgang van die Suid-Afrikaanse wynnywerheid is dit beslis belangrik dat ons 'n duidelike beeld het van die voor- en afkeure van gebruikers uit veral die ontluikende swart middelklasmarkte."

Die projek sal ook bes moontlik later uitgebrei word om die voorkeure en persepsies van wyngebruikers in onder meer Namibië en ander lande in Afrika en Asië te toets.



Dr Hélène Nieuwoudt

Climate change sure to affect farmers' profit margins

Climate change would affect the profit margins of farms throughout South Africa in varying degrees. All depends on how rainfall, temperature and the subsequent need for irrigation would change the yield and quality of produce being farmed in each region. This is the view of agricultural economist, Dr Hamman Oosthuizen, who used farms in Hoedspruit and Carolina in Mpumalanga, and Moorreesburg and Vredendal in the Western Cape as case studies for his doctoral research. He collaborated with climatologists and hydrologists from two South African universities to develop relevant data driven models.

Oosthuizen, who works for OABS Development in George, was recently awarded a doctor's degree

in the Department of Agricultural Economics at Stellenbosch University (SU). His supervisors were Dr Jan Lombard and Dr Daan Louw.

His modelling study is part of the end results of a broader initiative involving data and models from the Climate Systems Analysis Group of the University of Cape Town (UCT) and the Centre for Water Resources Research at the University of KwaZulu-Natal. The project was funded by the Water Research Commission and the Department of Agriculture, Forestry and Fisheries. It investigated how climate change would im-

pact agriculture, and assesses the vulnerability of crops, rangelands, farming households and enterprises. Appropriate ways by which farmers from selected areas could improve the management of their farms – with climate change in mind – are also suggested.

Explained Oosthuizen: "It's a given that the agricultural sector is physically and economically vulnerable to climate change. We therefore set out to find out just how climate change would be influencing farming endeavours and profitability at farm level in certain areas of South Africa. The impact

of such financial vulnerability goes beyond the farm gate, because many rural livelihoods are interlinked with the agricultural industry."

Oosthuizen's findings have been presented at international conferences in China, Mexico and Belgium in the recent past. A paper detailing the Hoedspruit case study was published in the International Water Association's Water, Energy and Climate (WEC) conference proceedings.

Oosthuizen's crop yield modelling was based on climatic data sets available from the Climate Systems Analysis Group (CSAG) at UCT. These were also used to project future dam levels and irrigation needs, and the availability of irrigation water.



Dr Hamman Oosthuizen

Intreeredes fokus op kos en wyn

Die klem het op kos en wyn geval toe prof Maret du Toit van die Departement Wingerd- en Wynkunde en prof Pieter Gouws van die Departement Voedselwetenskap op 12 Februarie hul intreeredes gelewer het.

Du Toit het die waarde van melksuurbakterieë in veral die fermentasieprosesse van voedsel- en drankprodukte uitgelig. Die ensieme daarin speel onder meer 'n rol in die aromaprofiel en kwaliteit van wyne wat sekondêre fermentasie ondergaan. Sy reken die beskikbaarheid van 'n verskeidenheid van spesies en stamme skep eindelose moontlikhede vir die verdere gebruik van alternatiewe melksuurbakterieë in dié sekondêre fermentasieproses.

Gouws het op sy beurt op voedselveiligheid en voedseloordraagbare siektes gefokus. Hy glo dat ultravioletlig (UV) gebruik kan word om mikro-organismes in onder meer melk en vrugtesappe op te spoor en te verminder. "Die behandeling van melk met UV-lig het baie belofte getoon as 'n nuwe tegnologie wat gebruik kan word vir die vervaardiging van veilige en waardetoegewoegde suiwelprodukte van goeie gehalte soos Cheddarkskaas."



Professore Eugene Cloete, Vise-rector: Navorsing en Innovasie, Maret du Toit, Pieter Gouws en Danie Brink, dekaan (wnd.) van die Fakulteit Agriwetenskappe, by die intreeredes. (Foto: Anton Jordaan)

KALENDER 2015

- 13 Mrt Einde van klasse vir eerste kwartaal
- 16 Mrt Aanvang van klasse vir tweede kwartaal
- 21 Mrt Menseregtedag (openbare vakansiedag)
- 25 Mrt Doktorsgraadplegtigheid om 10:00 in die Endersaal
- 25 Mrt PMA Opedag
- 26 Mrt Sewende Gradeplegtigheid: Fakulteit AgriWetenskappe om 10:00 (Coetzenburg Sentrum)
- 3-12 Apr Reses
- 10 Apr Laaste dag waarop eerste semester-modules amptelik by fakulteit-sekretarisse gestaak mag word
- 30 Apr Laaste dag vir registrasie van nuwe M- en D-studente

Nick Kotzé vat leisels by Agronomie

"Ons wil toenemend deur ons navorsing kwessies aanspreek wat vir die nywerheid belangrik is om sodoende te kan help om bedryfsproduktiwiteit te verhoog." Sô gesels prof Nick Kotzé, wat onlangs die leisels as voorsitter van die Departement Agronomie oorgeneem het.

Kotzé was tot einde 2013 besturende direkteur van die saadmaatskappy Agricol, voordat hy by die Universiteit Stellenbosch aangesluit het om die Agricol-leerstool in Agronomie op die been te bring. Hy is 'n Oudmatie wat 'n MBA agter sy naam het, asook 'n doktorsgraad oor die wisselboumoontlikhede van die weidingsgewas medics. Hy is ook nog lid van die SA Nasionale Saad-organisasie (SANSOR) se komitee vir veevoergewasse, en dien ook in sy bestuurskomitee.

Nog 'n verandering by Agronomie is die aanstelling van grondkundige en weidingspesialis, dr Pieter Swanepoel, as lektor. Hy is van

George waar hy as wetenskaplike by die Outeniqua-navorsingsplaas van die Wes-Kaapse Departement van Landbou werksaam was.

Swanepoel het verlede jaar sy doktorsgraad aan die Universiteit van die Vrystaat behaal oor die grondkwaliteit van weidings in die Suid-Kaap. Hy het in die loop daarvan 'n indeks ontwikkel om die grondkwaliteit van weidings in dié streek te monitor en te bestuur.

"Hierdie indeks neem grondchemiese, fisiese en biologiese eienskappe in ag om grondgehalte te kwantifiseer. Dit kan deur boere, voorligtingsbeamptes, ekoloë en besluitnemers in die Suid-Kaap gebruik

word om te besin oor watter weidings die mees optimale melkproduksie sal kan help verseker," vertel dié oud-Tukkie wat voorgaads en gedurende sy MSc-jare aan die Universiteit van Pretoria gestudeer het.

Hy dien tans in die redaksie en bestuur van die Weidingsvereniging van Suider-Afrika, en is mederedakteur van die African Journal of Range & Forage Science. Daarbenewens staan hy aan die spits van hierdie joernaal se Julie-uitgawe, wat 'n spesiale oorsig sal bied oor die stand van Suider-Afrikaanse weidingkunde in die 21ste eeu.

Hy is iemand wat gemaklik sy kennis met die publiek deel, is 'n



Prof Nick Kotzé Dr Pieter Swanepoel

gereelde stem op radio of spreker by inligtingsdae, en het in sy tyd op George gereeld populêre artikels vir die gemeenskapspers geskryf oor landbouverwante sake.

Swanepoel sal voor- en nagraads by opleiding in die Departement Agronomie betrokke wees. Sy kundigheid dra by tot die reeds bestaande navorsingsfokusse van dié akademiese departement. Dit sluit onder meer in 'n klem op graangewasse, die gebruik van alternatiewe gewasse soos canola en lupiene saam met graangewasse en weidingsmoontlikhede.

Giverson is spreading his wings

If the start to 2015 is anything to go by, it promises to be an exceptional year for PhD Horticulture student Giverson Mupambi, who hails from Zimbabwe.

He already has two awards to his credit – one for the best PhD paper and another for the top overall Horticulture presentation at the 2015 Combined Crops, Soils, Horticulture and Weeds Congress (CC2015) in George. The presentation was on the effect of pulsing irrigation on the physiology of Golden Delicious apples.

He hopes to become a horticultural consultant, and has been studying in the Department of Horticulture since 2008. His PhD research involves the relation between water use and sunburn in pome fruit. He has received a bursary and project funding from the SA Apple and Pear Producers' Association (SAAPPA).

His study leaders are Prof Wiehann Steyn of HORTGRO Science, Dr Michael Schmeisser of SU's Department of Horticultural Science and Dr Sebinasi Dzikiti of the CSIR.

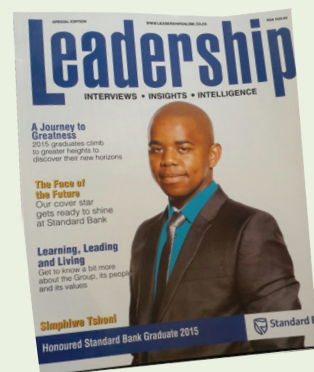
Come this autumn he hopes to fly off to the USA's "apple capital" Wenatchee to take up an internship with the Washington Tree Fruit Research Commission.

The prize money that he won at CC2015 will help to partly fund his visit.



PhD Horticulture student, Giverson Mupambi.

Simphiwe Tshoni, who will receive his MSc in Agricultural Economics in March, features on the cover of a special edition of the South African Leadership magazine. He was part of the Faculty's Standard Bank Centre for Agribusiness Development and Leadership, and completed his masters' degree under supervision of Prof Johan van Rooyen. He analysed the farm diversity of smallholders in the Stellenbosch local municipal area, and their attitudes towards risk. He works as a credit risk trainee at Standard Bank's Personal and Business Banking Division in Gauteng.



Terisa na Houston vir veekongres

PhD-student Terisa Needham vat in Maart die pad na Houston in die VSA om die Internasionale Veekongres (ILC) by te woon. Sy is een van twaalf ontvangers van studentereisbeurse na dié internasionale byeenkoms van vee- en vleiskundiges. Dit vind op 4 en 5 Maart plaas. Needham het in Desember haar MSc in Landbou (cum laude) verwerf. Haar navorsing het gefokus op die invloed van immunokastrasie op die kwaliteit van 'n groeiende vark se karkas, en die voedingskwaliteite daaraan verbonde.



Best on phytophagous insects

The Entomological Society of Southern Africa has announced the publication of a book, *Insects of Cultivated Plants and Natural Pastures in Southern Africa*. Said Prof Frances Duncan, President of the Entomological Society: "This book was written by 39 of our colleagues, and is the most comprehensive account of phytophagous insects in southern Africa published to date. Its production has been a non-commercial venture and, in line with the Society's aims, the proceeds from sales will be used to promote other worthy entomological causes.

This book will be usefull for both teaching and research. All help in making sure that the announcement of the Society's latest venture reaches the widest possible readership will be appreciated." To order: http://www.entsocsa.co.za/order_online.htm



New IGWS appointments to the Sensory Facility

The Sensory Facility at the Department of Viticulture and Oenology/Institute for Wine Biotechnology (DVO/IWBT) has announced the appointment of Wandisa Maxiti and Olwethu Fana as Technical Assistants and Valeria Panzeri as Technical Officer. All three positions are funded by Sanlam via the Institute for Grape and Wine Science (IGWS).

Wandisa and Olwethu have been working at the facility since September 2014. Previously, they were both successful graduates of the Pinotage Youth Development Academy (PYDA) – an important new initiative to help young previously disadvantaged



Olwethu Fana (left), Valeria Panzeri (centre) and Wandisa Maxiti are new sensory technical staff members appointed by the IGWS.

South Africans find employment in the wine industry.

During weekends and holidays Olwethu works at Beyerskloof as a tasting room assistant. She says she loves explaining and serving wine to guests.

Wandisa was previously enrolled at UWC for a BSc (Medical Biosciences) but did not complete her studies. She enrolled at the PYDA in 2013 and is very interested in wine, spirits and the sensory aspects of both.

Valeria was born in Italy, in the heart of Valpolicella, internationally famous for Amarone wines. She moved to Stellenbosch in 1999 and enrolled for a degree in Viticulture and Oenology at SU in 2001. She graduated in 2005, then worked as a winemaker and managed to complete her MSc (Agric) in Oenology in 2013.

Alison's involvement boosts Indian crocodile project



The Corbett Tiger Reserve

Since Dr Alison Leslie of the Department of Conservation Ecology and Entomology joined the *Crocodilian and Freshwater Turtle Research and Conservation Project* in Uttarakhand province in India, as scientific advisor in 2011, the project's depth and scope has expanded. It is a collaborative effort between the Uttarakhand Forest Department, Corbett Tiger Reserve, the Gadoli and Kanda Khal Wildlife Conservation Trust in India and the Department of Conservation Ecology and Entomology in the Faculty of AgriSciences.

The primary aim of the project is to gain an understanding of the population ecology of the highly endangered and unique crocodilian, the Gharial (*Gavialis gangeticus*) in the Corbett Tiger Reserve. Additionally

the research team is studying the population ecology of Mugger crocodiles (*Crocodylus palustris*) and three species of freshwater turtles. Results will be used to compile a species action plan for crocodiles and freshwater turtles in Corbett Tiger Reserve.

The gharial (*Gavialis gangeticus*) is a charismatic endemic crocodilian, now restricted to the northern part of the Indian subcontinent. Historically the gharial was restricted to river habitats, and as such it is extinct in parts of its range. Its original distribution included parts of Pakistan, India, Nepal, Bhutan and Burma. However, populations are now restricted to small areas in India and Nepal. The world's breeding population has been estimated to be

no more than 200.

In the early 1970s it became apparent that the gharial was on the brink of extinction with less than 200 left in the wild. A 1974 survey shockingly revealed a nearly extinct, non-breeding population of five gharials.

In the mid 1970s a crocodile recovery programme was designed for India. The scheme was to locate remaining wild nests and collect the eggs before predators (including people) got to them or monsoon flooding ruined the nests. The eggs were incubated, the hatchlings reared to approximately 1.0m in length and then released into suitable river areas (called head-starting). A total of 12 000 eggs were collected and 5 000 juveniles released.

A survey conducted in Corbett

in 2008 surprisingly revealed a population of approximately 100 gharials, including about 40 adults. This was the first time that breeding was confirmed in the reserve in over 30 years. Surveys conducted by Alison and her team since 2011, have shown increasing numbers of gharial in the ecosystem. The first nests were located in 2011 and since then nest numbers have been increasing. In 2014 eleven clutches were located and post-hatching surveys estimated 200-250 hatchlings in the system.

The project is funded by a number of grants, primarily for zoos across the USA and Europe. It is hoped that this study will contribute to the survival of one of the world's most endangered reptilian species.



Biltong research on a tropical island

Visiting a tropical island to do research on biltong, of all things? For one's PhD? This sounds unreal, but it happened to Maxine Jones (picture) as she visited Reunion Island as part of her PhD studies in Food Science.

Her visit to this French territory, very close to Mauritius, was to use ultrasound equipment available at the *Centre de coopération internationale en recherche agronomique pour le développement* (CIRAD). In the process she could complete one of her trials with the help of Dr Elodie Arnaud and Dr Gwenn Atheaux, members of CIRAD's Qualisud research unit.

Maxine's visit of a fortnight formed part of ongoing co-operation between CIRAD and Prof Louw Hoffman's South African Research Chair in Meat Science: Genomics to Nutriomics, based in the Faculty's Department of Animal Sciences.

Of her research into the use of ultrasound as possible way to pre-treat biltong during its production she says: "During the drying process it can take up to four days for the meat to lose at least half of its moisture. We are investigating the use of a pre-treatment such as ultrasound that helps reduce the drying time without influencing the quality of the end product." She also tested the effects and movement of salt in the meat during the brining and drying processes used to make biltong.

Maxine has fond memories of her stay: "The research was most rewarding and the fact that I was on a tropical island didn't hurt either! Pity

the laboratory wasn't outside, I could have constantly taken in the breathtaking view of the sea, palm trees and tropical birds. However, working shoulder to shoulder with Elodie Arnaud, meeting many of the locals, the delicious pineapples and their way of life there were undoubtedly the highlights of my trip!"

She used her weekends to explore the island, which has a population of less than 900 000. "At first it was difficult to find my way around with many wrong turns that were taken thanks to my non-existent French," explains Maxine, whose postgraduate studies form part of the endeavours of the South African Research Chair in Meat Science: Genomics to Nutriomics in the Department of Animal Sciences.

- CIRAD's Dr Elodie Arnaud will be working at Stellenbosch University for the next three years, and will contribute to the research activities of the SARCHI Chair dealing with meat processing. Another French visitor to the Department of Animal Sciences is Prof Antoine Collignan, who is enjoying a sabbatical in Stellenbosch until August. He lectures in food engineering at Montpellier Sup-Agro in France.



Akwaponikastelsel oortref verwagtinge

Die produksieresultate in die nuwe Akwaponikastelsel op Welgevallen-proefplaas het alle verwagtinge oortref. Die stelsel is in Augustus 2014 gebou. Aanvanklik is daar 'n verskeidenheid plantvarieteite geplant om die stelsel eers deeglik te toets. Die opbrengs van die stelsel word aan die Stellenbosch-voedingsaksie (www.feedinginaction.co.za) geskenk, maar toe die kruiers en groente egter begin ryp word, kon die Voedingsaksie beswaarlik al die produkte gelyktydig gebruik. Daar is toe in Desember verlede jaar heelwat van dié produkte aan Solidariteit se liefdadigheidsprogram voorsien. Die Akwakultuur-afdeling was ondertussen ook deel van 'n Europese Unie "Horizon2020"-befondsingsaansoek vir 'n Akwaponika PhD-program. Die uitslag hiervan word eers later vanjaar bekend gemaak.

Omgewingsimpakstudie afgehandel

Die omgewingsimpakstudie ("scoping") vir die nuwe Akwakultuur Salm Smolt-hersirkulasiestelsel, wat vir Welgevallen-proefplaas beplan word, is opnaas na 'n tydperk van drie jaar afgehandel. Die aansoek is deur 'n onafhanklike omgewingskonsultant van AquaEco hanteer.



Salm is hoog in omega 3-vetsure wat vir die ontwikkeling van die brein belangrik is. Suid-Afrika voer tans 5000 ton salm per jaar in waarvan 'n groot deel vars uit Noorweë en elders vir die plaaslike sushimark ingevlieg word.

Henk Stander van die US se Akwakultuur-afdeling sê daar is reeds 'n Atlantiese salm-loodsprojek met hokke in die see by Saldanha en verskeie ander salmprojekte is in 'n beplanningsfase. Welgevallen sal die klein salm smoltvissies aan verskeie van hierdie uitgroei-salmplase voorsien. Die salm sal hoofsaaklik aangewend word om die SA-mark te bedien.

Die fasiliteit sal nie net vir die Akwakultuur-afdeling 'n inkomstestroom meebring nie, maar ook aan studente die geleentheid bied vir opleiding en navorsing binne 'n moderne Akwakultuur-hersirkulasiestelsel waar omgewingstoestande gemanipuleer kan word.

Hoë eerbewys vir twee voorste akademici



Proff Andy Cairns André Agenbag

Twee senior lede van die Departement Agronomie is onlangs deur die SA Vereniging vir Gewasproduksie vereer vir hulle bydraes aan hul onderskeie dissiplines in Agronomie. Proff Andy Cairns en André Agenbag – soos hulle onder vriend en kollega bekend staan – is ook vir hulle volgehoue en jarelange toewyding aan die Suid-Afrikaanse landbouwyerheid in die algemeen vereer.

Cairns, 'n buitengewone professor in die Departement Agronomie, het erelidmaatskap van die Vereniging ontvang vir sy gewaardeerde bydraes en volgehoue insette deur die jare op die gebied van Onkruidwetenskap. Sy volgehoue verbintenis met die landbou strek oor 'n halfeeu en hy het

met sy werk oor die onkruidwederstand van rog en wilde hawer in die graanbedryf groot bekendheid verwerf.

Insigelyks het Agenbag die oorgrote deel van sy navorsingsloopbaan van 30 jaar daaraan gewy om volgehoue graanproduksie-praktyke in die Swartland te bevorder. Die Vereniging het aan hom sy Goue medalje toegeken uit erkentlikheid vir sy gewaardeerde bydraes deur die jare aan die Vereniging en ook dat hy gehelp het om deurentyd die statuut van die Vereniging onder betrokke landbou-belanghebbendes te bevorder. Hierdie was 'n paslike huldeblyk aan Agenbag aangesien die gordyn einde 2014 oor sy luisterryke akademiese loopbaan in die Departement Agronomie gesak het.

Stellenbosch colours show yet again

Stellenbosch soil scientists received the "Best paper on innovative new technology" Award from the Soil Science Society of South Africa at its 60-year anniversary and the International Year of Soil 2015 celebrations. This was during the combined congress of the SA Soil Science, Horticulture, Agronomy and Weed Science societies in Tramonto, George. The award was shared by Dr Andrei Rozanov of the Department of Soil Science and one of his PhD students, Liesl Wiese, who is a researcher at ARC Institute for Soil Climate and Water.

Rozanov, with co-authors, Liesl Wiese and Ignacio Ros-Mesa, presented a paper on *Soil organic matter: constant, variable and unknown* suggesting a macroscopic statistical method to determine and monitor C content and particle density of soil organic materials. The approach will give further insights into organic matter decomposition and dynamics in soil.

Wiese, with co-authors Ignacio Ros-Mesa, Andrei Rozanov, Willem de Clercq

and Thomas Seifert, presented a paper on *Soil carbon accounting in the KZN midlands using vertical distribution functions*. She proposed a new approach towards soil carbon accounting, simplifying the procedure and reducing the amount of sampling by an order of magnitude to make soil carbon inventories an integral part of carbon footprinting.

Stellenbosch University colours were indeed showing again!



Soil Science Society of SA Council member, Prof Jude Odhiambo (right), handed over the "Best paper on innovative new technology" award to Dr Andrei Rozanov and Ms Liesl Wiese.



Ihan du Plessis



Annabella Baloyi



Gideon van Zyl

Students excel at national Plant Pathology Congress

Two PhD students of the Department of Plant Pathology received awards at the 49th Congress of the Southern African Society of Plant Pathology which was held recently in Bloemfontein.

Annabella Baloyi and Gideon van Zyl, received the award for the best poster and the John and Petakin Mildenhall award respectively. The latter is for an outstanding PhD student in the field of Plant Pathology. Ihan du Plessis of the Department of Microbiology (supervised by Prof Karin Jacobs) received the award for the best presentation. A part of the research that Ihan presented was done in collaboration with Minette Havenga and Dr Lizel Mostert of the Department of Plant Pathology.

Soil Science postgrads bag top awards at Combined Congress

A record number of 388 delegates from across the RSA attended the Combined Congress 2015 of the South African Plant and Soil Science Societies (SSSSA, SASHS, SASCP and SAWSS) held at Rhodes University in Grahamstown recently.

Four delegates of the Department of Soil Science also attended – Dr Ailsa Hardie and three of her postgraduate

students, Ms Makhosazana Sika (PhDAgric), Mr Jacques Smith (MScAgric) and Mr Naudé Smith (MScAgric). The students' oral presentations were all very well received, and they bagged all the Soil Science awards for young researchers on offer at the congress. Naudé Smith received the Soil Science Society of SA award for the Best Paper presented by a researcher under 30 for his presentation entitled:

"Effect of compost and foliar sprays on rooibos tea growth and yields."

Jacques Smith walked off with the Omnia Award for Best Soil Science Student Paper for his presentation entitled: "The effect of long-term conservation agriculture on soil organic matter functional pools (Western Cape, RSA)." The awards included a medal and a cash prize of R2 000.



Department of Soil Science delegates who attended the Combined Congress 2014 at Rhodes University recently (from the left): Mr Jacques Smith, Dr Ailsa Hardie, Ms Makhosazana Sika and Mr Naudé Smith.

Voedselwetenskap-studente palm IPSA Gold Pack-toekennings in

Die Departement Voedselwetenskap het op die IPSA Gold Pack-toekenningsplegtigheid van 2014 in Kaapstad met sewe finaliste gespog waarvan drie met trofee weggestap het. Hier is (agter, vlnr) Marli le Roux, Cardré Oppelt en Zandrè Germishuys, en (voor, vlnr) Renée Crous, Nicolene Els, Kate Sendin en Carla Vernooy saam met twee van hulle trotse dosente, dr Gunnar Sigge (agter, regs) en prof Marena Manley (voor, regs). Die mededingers moes 'n verpakingsoplossing vir die resultaat van hulle voedselwetenskap-produkontwikkelingspoging van die eerste semester van 2014 vind. Die IPSA Goue-trofee is deur Nicolene Els ('Le Lait'-drankhouer) ingepalm; die IPSA Silwer-trofee is aan Zandrè Germishuys ('Rooibos-beskuitjepoeding in 'n mini-teekoppie') toegeken en hy is ook spesiaal deur die beoordelaars vermeld vir sy 'innoverende rigiede plastiese-oplossing'. Die IPSA Brons-trofee is deur Kate Sendin verower vir 'Le Lait'-gegeurde melk in vloeistofkarton. Marli le Roux is ook deur die beoordelaars vir 'Out of the Box Thinking' eervol vermeld.



Horticultural Science researchers address post-harvest industry issues

Ten researchers, including two from Italy, were invited speakers at the HortgroScience Post-harvest seminar held at STIAS recently. The focus was on major challenges during the handling chain in the pome and stone fruit industries in the Western Cape.



Presenters at the recent HortgroScience Post-harvest Seminar at STIAS, are (from left): Tarl Berry, Asanda Mditshwa, Dr Elke Crouch, Tavagwisa Muziri and Prof Malcolm Dodd.

Five of the ten research topics were presented by students and staff of the Department of Horticultural Sciences:

Asanda Mditshwa (a PhD student) presented work done on 'Granny Smith' scald development and how dynamic controlled atmosphere (DCA) can be used as a tool to overcome this major defect without the use of chemical treatments.

Dr Elke Crouch, a staff member of the Department and post-harvest researcher, presented work on the three main types of browning found in South Africa and how pre-harvest temperatures as well as soil types, tree ages and mineral composition of fruit can influence these browning types.

Researcher, Tavagwisa Muziri, presented work on identifying 'Forelle' pear mealiness prior to ripening using non-destructive techniques NIRs and X-ray CT. His PhD

research was conducted under the supervision of Dr Elke Crouch and Prof Karen Theron.

Researcher, Prof Malcolm Dodd, presented work on his patent for the reverse airflow technique in a shipping container.

Tarl Berry unpacked packaging using a multi-scale model from the individual fruit to internal packaging, carton, pallet stack, refrigerated shipping container to the reefer ship. Tarl is currently a Horticulture PhD student under the supervision of Prof Linus Opara.

The research findings were well received by industry. The link between research at the Department of Horticultural Sciences and the fruit industry through HortgroScience is crucial for future innovations in the fruit industry.

All the abovementioned research topics were funded by HortgroScience and the DCA.

Stander in Israel by werkswinkel



Jakkie Stander, 'n navorsers van die Departement Hortologie, het onlangs die Volcani-landbounavorsingsorganisasie en die Fakulteit Landbou, Voedsel en Omgewing van die Hebreeuse Universiteit in Jerusalem, Israel, besoek om 'n internasionale werkswinkel oor alternerende drag en beheer van blom in vrugtebome by te woon. Navorsers uit Australië, Frankryk, Israel, Meksiko, Turkye en die VSA, wat almal hulle resultate en innoverende idees oor die alternerende drag in meerjarige vrugtebome voorgelê het, het die werkswinkel bygewoon. Alternerende drag word gekenmerk deur 'n jaar waarin 'n loot of boom meestal reprodutiewe bloeiwyse ondervind wat lei tot 'n hoë aantal vrugte en opgevolg word deur 'n jaar van min of geen blomme. Stander het 'n aanbieding oor die Suid-Afrikaanse perspektief op alternerende drag in sitrus gedoen.

SARChI
MEAT SCIENCE
GENOMICS TO NUTRIOMICS

UNIVERSITEIT
STELLENBOSCH
UNIVERSITY

University of Fort Hare
Together in Excellence

Home Research Students Visiting Academics / Collaborators Blog

Nuwe Webtuiste stal werk van vleiskundiges ten toon (www0.sun.ac.za/sarchi)

'n Volgehoue reeks publikasies, talle nuwe graduandi én 'n nuwe webtuiste tel onder die stel mylpale wat deur die Suid-Afrikaanse Navorsingsleerstoel in Vleiskunde: Genomika tot Nutrinomika behaal is.

Prof Louw Hoffman lei die inisiatief, wat in samewerking met prof Voster Muchenje van die Universiteit van Fort Hare bestuur word.

"Ons nuwe webwerf gee ons vennote, mede-werkers en moontlike befondsers 'n waardevolle oorsig oor die bedrywigheide van ons navorsers, nagraadse studente en nadoktorale genote," sê Hoffman.

"Die akuele lys van ons publikasies gee ook 'n blik van ons navorsingswerk," voeg Muchenje by.

Agt van die Leerstoel se MSc-studente gradueer in Maart, met Megan North, Justin Giird en Tuli Uushonato wat hul grade cum laude sal verwerf. North het die veroudering van springbokkarkasse bestudeer, terwyl Tuli Uushonato navorsing gedoen het oor die gebruik van wapenvlieë of swart soldaatvliegslarwes as deel van 'n pluimveedieet. Justin Giird het ondersoek hoe jag ook as deel van 'n groter bewaringsplan ingespan kan word.

Die ander graduandi is Altie Burger (die vleisgehalte van Namakwa Afrikaner- en Dorperskape), Samantha Matjila (verkoelingstandaarde van snoek), Omalara Tanimowo (die invloed van insouting en droging op snoekgehalte), Ger-Mari Tesselaar ('n groei-model om voltruisboere by te staan met voedingsriglyne) en Bernadette Mushinge (die invloed van fitase in slaghoendervoeding).

Spotlight on commercial aquaponics and aquaculture

- A commercial aquaponics workshop will be presented at the Faculty's Welgevallen Experimental Unit at Coetzenburg, Stellenbosch, on 17 and 18 April starting at 08:00 and ending at 16:00 on both days. On the programme are matters such as system components, water quality, fish and crop selection, waste management, treatment options and legislation. The cost involved is R3 800 per person. To register and for further info contact Desmare van Zyl at mdvz@sun.ac.za or tel 084 5990101.
- A major aquaculture conference will be held in Polokwane, Limpopo, from 27 September to 2 October. The theme is Aquaculture: Shaping the Future. The conference is being presented in collaboration with the University of Limpopo and the Limpopo Provincial Department of Agriculture.



'n Vlgbalkragmeting in volle gang – nuwelinge eerstejaars stal hulle sporttalent vroeër vanjaar met die Agri Afskopfees uit. 'n Verwelkomingsworsbraai is ook deur die ASA-komitee vir nuwelinge gereël waartydens hulle geleentheid gebied is om nader met mede-eerstejaarstudente in AgriWetenskappe kennis te maak.

Eerstejaars van 2015 in Fakulteit verwelkom

Opwinding en afwagting onder eerstejaars was duidelik merkbaar toe hulle onlangs met Verwelkomingsweek die JS Marais-gebou betree het om amptelik lede van die Fakulteit se Studentevereniging (ASA) te ontmoet.

Hulle is ook deur prof Danie Brink, die waarnemende Dekaan, toegesprek wat hulle kortliks oor die Universiteit ingelig het; toe is hulle deur ASA-lede na verskillende departemente en lesingsale begelei waar hulle vanjaar heelwat tyd gaan deurbring.

Departemente het werklik uit hul pad gegaan om die nuwelinge te laat tuis voel – so bv het Hortologie vrugtestokkies uitgedeel, Bewaringsekologie het oë laat rek met mededeling oor die hantering van allerlei insekte en Wingerden Wynkunde het visioene van toekomstige wynproe-sessies opgetower – mits die student natuurlik leer om die wyn self te maak!

Aan die einde van dié dag het die nuwelinge ongetwyfeld veel meer ontspanne gevoel en somer baie moed gehad vir die studiejaar wat voorlê.

Regstelling: In die Desember-uitgawe van die Nuusbrief is daar per abuis twee foto's en berigte uit die Departement Wingerd- en Wynkunde omgeruil. Die foto van die houtvate wat geskenk is, is saam met die berig "Wyn-Oppe-Rooipleinfees uiters gewild" gebruik en die foto wat eintlik geplaas moes gewees het, het agterweê gebly. Regs is die korrekte foto wat aanvanklik geplaas moes gewees het. En onthou, nog inligting oor die wyne is beskikbaar op die Facebook-blad "Die Laan Wines," of by winesales@sun.ac.za



Hier is Riaan Wassung (die wynmaker), Adam Juhas, Marisa Nell en Edmund Lakey, wat die wynproe behartig het.