

Newsletter

Nuusbrief

Augustus 2018 AUGUST



Saam vorentoe, forward together.

Food Science, SU is proud to be part of the Stellenbosch University's centenary celebration.

We've come a long way during the past 100 years ...let us be a meaningful part of the legacy of the next 100 years!



DIE DEPARTEMENT VAN VOEDSELWETENSKAP, US IS TROTS OM AAN TE KONDIG DAT DIE ERE- PENNING VAN DIE SA AKADEMIE SE FAKULTEIT NATUURWETENSKAP EN TEGNOLOGIE 2018, TOEGEKEN IS AAN PROF LIZETTE JOUBERT

Die Raad van die Suid-Afrikaanse Akademie vir Wetenskap en Kuns het hul pryswenners vir 2018 bekend gemaak.

Die pryse sal tydens bekroningsplegtighede, onderskeidelik in Pretoria (18 Julie) en Stellenbosch (21 September) oorhandig word.

Die Erepenning word toegeken vir prestasies en bydraes ten opsigte van die bevordering en ontwikkeling van 'n besondere vakgebied in die natuurwetenskappe.

Die 2018 prys word toegeken aan prof Lizette Joubert, tans hoofnavorser by die Landbou Navorsingsraad se Infruitec-Nietvoorbij navorsingsinstituut buite Stellenbosch en is buitengewone professor by die Departement Voedselwetenskap aan die Universiteit van Stellenbosch. Prof Lizette Joubert is die afgelope 35 jaar betrokke by innoverende, volhoubare en toegepaste produkgebaseerde navorsing op rooibos en heuningbos. Haar navorsing het geleid tot die ontwikkeling van verskeie prosesse wat deur die rooibos- en heuningbosindustrie geïmplementeer word. Sy het haar navorsing uitgebrei na die antioksidanteienskappe van rooibospolifenole as alternatief tot sintetiese voedselantioksidante. Haar kennis van die fenoliese komponente van dié tee het geleid tot internasionale erkenning as navorser. Die Departement Voedselwetenskap het 'n trotse verbintenis met Prof Lizette Joubert en die LNR. Baie geluk met hierdie uitsonderlike prestasie.



Photo left: Prof Lizette Joubert

Photo right: Prof Pieter Gouws

(Foto's verskaf deur persone in artikel)



New deputy dean appointed

Prof Pieter Gouws has been appointed as the deputy dean for teaching and learning in the Faculty. Prof Gouws, who works in SU's Department of Food Science, is the former head of the department of the University of Western Cape's Department of Biotechnology. He uses biotechnological techniques to improve the microbial safety of food and is considered an expert on listeriosis, among others.

Prof Gouws commented: "The changing context and new challenges facing the higher education sector and society requires that we have to think differently about teaching and learning." He believes the Faculty should strive for an academic culture where teaching and research are intertwined. "We should offer programmes that will be innovative and challenging as well as interdisciplinary in content, with the emphasis on students' learning processes," he said.

Over the next few years, Prof Gouws wants to explore the use of flexible assessment to create blocks of extra teaching time, create opportunities for students to take optional subjects beyond their own discipline, and reduce the credit load per year per programme. He also wants to include critical thinking, ethical reflection and communication skills in the curriculum.

Award-winning livestock geneticist **Prof Kennedy Dzama** has been appointed deputy dean responsible for research, innovation and post-graduate studies in the Faculty.

First-year Achievement Awards



The Department of Food Science has become accustomed to receive an invite from prof Arnold Schoonwinkel, Vice-Rector: Learning and Teaching for the annual First-year Achievement Awards. It is not only our top-achieving students who get honoured, but also the lecturer who inspired them. Anja Lauber, a Food Science student was one of the 32 top-achieving first years of 2017 and she has nominated Dr Diane Rip as her most inspiring lecturer. These top-performing first years were treated with a gala dinner and awards evening on 11 April 2018 at the Neethlingshof Wine estate, outside Stellenbosch.

Photo from left to right: Prof Arnold Schoonwinkel, Dr Diane Rip, Ms Anja Lauser and Prof Pieter Gouws (Vice-dean AgriSciences)



Chantal Lemmetjies, Food Science graduate, stunned by SU99 donors.

Stellenbosch University's (SU) pre-centenary fundraising campaign, #SU99, aimed at alleviating student debt, has surpassed its initial target of R99 999 as well as its upgraded target of R999 999, which made the festive season a bit more joyous for a few graduates who received the good news that their student debt was paid for by a group of SU's generous donors.

"After running for 99 days, the #SU99 campaign exceeded expectations, said Ms Karen Bruns, Senior Director of Development & Alumni (DAR) at SU. "Thanks to the generous contributions, we have surpassed our target and made it to R1 million."

This initiative, driven by the DAR Division, was launched on 20 September 2017 to raise awareness of SU's Centennial year in 2018 and to help alleviate student debt. The initial target was R99 999 but as the campaign began to gain momentum, the bar was raised to R999 999.

Prof Wim de Villiers, Rector and Vice-Chancellor of SU, contributed over R9 000 to the campaign in his personal capacity. "The #SU99 campaign is a beautiful example of the power of our donors joining hands to support a worthy cause," says Prof de Villiers. "From the staff and students on campus who added a donation to the collection boxes around campus, to alumni who contributed through online giving, to major donors who once again extended their support – the mission of Stellenbosch University is bolstered by our friends and partners."

Cheryl Benadie, Donor Relations Manager at DAR, explains the rationale behind the focus on alleviating student debt. "Our first-generation students graduate to become first-generation professionals. The burden of debt on these individuals who have limited social and economic support can seem insurmountable."

"Think about what it took to get you started in your professional life. You needed to get a car, a place to stay and adjust to the new expenses that come with adulthood. Add to that the reality of student debt – and there is a shadow cast on a graduate's bright future," she says.

According to Ms Bruns: "While the University does all it can to help support missing middle and first-generation students, each student is ultimately responsible for any outstanding student debt. In some cases, a student will have received multiple bursaries during their academic career, but not all funding support covers the full cost of a tertiary programme. And this is where this campaign came in, helping our graduates step into the next stage of their lives with confidence."

Chantal Lemmetjies, Vincent Witbooi and Lebo Komane, some of the first recipients to receive the news that their student debt was completely paid, were in a state of 'surprised shock'. Here's what she had to say: <https://www.youtube.com/watch?v=a-feHqAdb8M&t=3s>

You can also make a difference in a needy student's life.

For more information on SU's campaign to alleviate student debt (beyond 2018), please contact: Cheryl Benadie on tel: 021 808 9351 or e-mail: cbenadie@sun.ac.za Anneke Muller on tel: 021 808 9906 or e-mail: annekem@sun.ac.za.

A dream came true

The new Vibrational Spectroscopy unit within the Central Analytical Facilities (CAF) at Stellenbosch University was launched on 6 March. This world class facility offers students, researchers and industry wonderful new possibilities for applications across a broad spectrum of fields like food quality and safety, medical, agricultural, archaeological, palaeontological and the pharmaceutical industries.

Article by E Els

Situated in the Department of Food Science building the unit houses newly acquired hyperspectral imaging equipment which make the study of spectral differences to resolve the chemical composition and spatial distribution of these components possible. The physical properties of the sample can also be investigated on a non-destructive and non-invasively way with minimum or no sample preparation.

Guests at the launch were welcomed by prof Gary Stevens, CAF director. "I am very excited to see what we can get this laboratory to do in terms of research across a very broad range of fields" Stevens said. The Unit is an initiative that was made possible by funding from the National Research Foundation (NRF) through the National Equipment Programme and the excellent grant application that was written by prof Marena Manley and dr Paul Williams. Mr Stephen Dlamini from the NRF stated his excitement about the new laboratory and reminded guests about the range of opportunities and funding which the NRF offer.

Manley who first became aware of hyperspectral imaging in 2005 said that this laboratory "really is a dream come true". The equipment in the laboratory was installed in February 2018 by

technicians from HySpex, Norsk Elektro Optikk in Norway. HySpex reported that this is "the largest installation ever done on a single site". There is no such facility in the entire world. "This really is a world class facility". Manley encouraged students and researchers to use the laboratory and said that they made sure that the software (from Prediktera, called Breeze and Evince) is user friendly. "This is a research facility, not only to send your samples to, but also to get involved and use the facility."

Dr Janine Colling, manager of the facility, explained that the unit has three systems. A Shortwave Infrared (SWIR) system (operating in the 850 – 2500 nm spectral range); a Visible Near Infrared (VNIR) system (operating in the 400 – 1000 nm spectral range) and a dual VNIR/SWIR system to scan in transmission or reflectance mode. Colling invited students, researchers, academic institutions and industry to use the laboratory and apply for a training workshop scheduled for June (www.sun.ac.za/caf). Hyperspectral imaging can be used for the qualitative and quantitative analysis of samples. Examples of applications include detection of bruising or chilling injury in fruit, to the identification of bacterial infestation in wheat. Once applications are created they can also be used on the Breeze software for the real time analysis of samples.

Guest speaker, Prof Christian Huck from the University of Innsbruck, Austria, said that all over the world serious food problems are seen. Some of these include food contamination from chicken farms, plastic found in chocolate and the very serious case in China in 2008 where melamine were added to baby nutrition to artificially increase the content of protein. 54 000 babies had to be hospitalised and some died. There are numerous other examples. Huck said that medicine applications, the testing and finding of new medicinal plants, has become more important in Europe. He emphasized the need for tools and easy to use equipment to do studies.

All those interested to know more or visit this facility can visit the website www.sun.ac.za/caf or send an email to dr Janine Colling at jcolling@sun.ac.za.





March 2018 graduation ceremony

At the March 2018 graduation ceremony the following degrees were awarded to students at the
Department of Food Science, Stellenbosch

11 bachelor of Science in Food Science degrees

Master of Science in Food Science to Fundeka Ndyoki, Manzi Sishi, Brandon van Rooyen and Loriane Yanclou

Master of Science in Food Science Cum Laude Cenette Bezuidenhout, Megan Kleyn an Jade Tobin

Three doctorates were also awarded

Erica Moelich (Food Science)

Supervisor: Prof E Joubert Co-supervisor: M Muller

Development and validation of prediction models and rapid sensory methodologies to understand intrinsic bitterness of Cyclopia genistoides

Karen Munhuweyi (Food Science)

Supervisor: Prof UL Opara Co-supervisors: Prof GO Sigge, Drs C Lennox and OJ Caleb (external)
Antimicrobial effect of chitosan and essential oils on postharvest disease of pomegranate fruit

Irene Orina (Food Science)

Supervisor: Dr PJ Williams **Co-supervisors:** Prof M Manley and GM Kenji (external)

Monitoring of fungal infection in maize with high resolution X-ray microcomputed tomography



THE IMPACT OF FOOD



Prof Pieter Gouws believes that AgriSciences and, in particular, Food Science form an integral part of everybody's life.

By ROZANNE ENGEL

Prof Pieter Gouws (Photo: Stefan Els)

Recently appointed a vice dean in the Faculty of AgriSciences, Prof Pieter Gouws will focus on teaching and learning in his new position. Gouws worked at the University of the Western Cape's Department of Biotechnology for over 20 years, where he was also the head of the department. He joined SU's Department of Food Science in 2014.

According to him, it was while he was studying at SU many years earlier that he decided that food microbiology would be the career path for him. In his new position, Gouws also hopes to inspire the next generation of scientists to follow the same career direction.

"The contribution of food scientists to society is huge. Every day, you need food scientists because you have breakfast, lunch and dinner. So, to look at food security, food safety and new products, you depend on food scientists. They're actually part of your life every day. So many people get a degree and don't know what to do afterwards. I think food scientists know quite well. After their third or fourth year, they know what they want to do and where they want to go, that they have a passion for it."

Gouws grew up on a farm in the small Karoo town of Prince Albert. Being the first in his family to go to university, he understood the value of higher education and the opportunities that it could afford him. Gouws holds a BSc and BSc Hons from SU, an MSc Food Microbiology degree from the University of Pretoria, a PhD in Food Biotechnology from the University of the Western Cape, and a postdoctoral fellowship from the University of Nottingham in England.

He is also considered an expert on listeriosis and uses biotechnological techniques to improve the microbial safety of food.

Gouws believes that the role of the lecturer is important to advance and grow academic institutions and develop new research. "I want students to have a very holistic approach to their studies. Lecturers play a very important role in student development. I don't always think they realise how important their role is. They can make or break a student. The new students on campus are very different from those 20 or 30 years ago, so what worked for us won't always work for them. One must involve them in a holistic class approach, where there's open communication between the student and the lecturer but also among students themselves, which is important."

In his new position, Gouws hopes to explore new methods for assessing students. He would like to see a more flexible assessment process, where there is extra teaching time and more opportunities for students to take on new subjects outside their study discipline. "I like the flexible continuous assessment people use. I think it plays a very important role in the development of a student. To over-assess a student isn't good either. There must be a goal in assessment at the end of the day. So, if students do something for a project, they need to find value and learn something from it."

This article is from: https://www.sun.ac.za/lifesu/en/interviews/interview_pieter-gouws



Dr Janine Colling, Prof Marena Manley, Prof Christian Huck at the launch of the new CAF facility



The new Vibrational Spectroscopy unit within the Central Analytical Facilities (CAF) at SU was launched on 6 March 2018



Damascus road introduced their delicious coffee to Food Science



Prof Pieter Gouws telling RSG listeners about the recent Listeriosis outbreak



Students attending the CAF launch



Anchen Lombard at the AAT graduation



Drs Irene Orina, Erika Moelich en Paul Williams by die kanselliersete @ STIAS, Maart '18



Maricel Krügel presented at ISEKI 2018, Germany



5th International ISEKI_Food Conference

ISEKI_Food 2018

3 - 5 July 2018, University of Hohenheim, Stuttgart, Germany

"The Food System Approach: New Challenges for Education, Research and Industry"



ISEKI Conference

Dr Maricel Krügel attended the 5th International ISEKI Food Conference held at The University of Hohenheim, Stuttgart, Germany. All the presentations conformed to the overarching and very relevant theme "Food System Approach: New Challenges for Education, Research and Industry".

Over three hundred delegates from all over the world attended the three day conference. Dr Krügel had the privilege to present one presentation titled: "*Successful design and implementation of a blended online MSc module using Laurillard's Conversational Framework*" as well as a poster titled: "*Incorporating the global Food Industry challenge 'Profit rather than Waste' in trial design and product development*". The ISEKI conference is one of very few conferences that encourages, understands the value and prioritise Food Science education, not only being a good practitioner but also exploring it in a scholarly manner. Maricel is very excited since she has been invited by one of the delegates to also present her presentation about blended learning at the AC21 Symposium to be held at Kasetsart University in Bangkok, Thailand from 12-14 November 2018.

The University of Hohenheim

The University of Hohenheim is a campus university located in the south of Stuttgart. It was founded in 1818 and is Stuttgart's oldest university. The University is celebrating its 200th birthday this year. Its primary areas of specialisation is agricultural and natural sciences. The campus has beautiful parks where students and visitors can sit. Stuttgart is a beautiful city with lots of theatres, car manufactures such as Porsche and Mercedes Benz.



Maricel Krügel at ISEKI 2018

(Photos and article by M Krügel)

PhD Research Exchange to KU Leuven University

Zandré Germishuys

I was granted the opportunity to visit KU Leuven University in Belgium during June/July to work with Prof Jan Delcour and his research group on some of my PhD work. My exchange was partly sponsored by the University of Stellenbosch International Travel Grant as well as a departmental contribution. During the month that I worked at KU Leuven I got the opportunity to meet students in my field of research, from whom I learned so much. I was also honoured to be able to work with Prof Delcour, a well-known cereal chemist who will now be a co-supervisor on my PhD project. Being in Belgium I could not miss the chance to explore and be a real tourist. I visited Brussels, Ghent, Antwerp as well as Bruges during my time in Belgium. I was also fortunate to have had the opportunity to visit family friends in Frankfurt, Germany over a long weekend.

(Photo's provided by Zandré Germishuys)





At Food Science we do like to BRAAI

The Food Science student's association hosted another very successful welcoming braai at the beginning of 2018. The idea is to welcome all new first year students. The reality is that this event is gaining popularity every year and it is not only a proper welcoming for the first years, but also an opportunity for all, young and old (er) to bond and build team spirit.

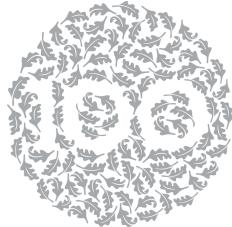


BRAAI 2018





Paul Williams, Anchen Lombard, Maricel and Koos Krügel, Gunnar Sigge and Pieter Gouws attended the AgrSciences centenary celebration that was held at Spier on 4 May 2018.



Dr Diane Rip has been selected as a recipient of the Malaspina International Scholar Travel Grant Award that took place in Bermuda in January 2018.

Dr. Alex Malaspina, for whom the award is named, and a small group of scientists from academia and industry founded the International Life Sciences Institute (ILSI) in 1978. ILSI is a nonprofit, worldwide foundation that seeks to advance scientific understanding of nutrition, food safety, toxicology, risk assessment and the environment. Generally speaking, ILSI projects must have a primary public purpose and benefit, and must address issues of broad public health interest. ILSI brings experts from the private and public sectors together to improve the science used to ensure human and environmental health and safety. The Malaspina International Scholar Travel Grant Award is designed to enable academic scientists who are at an early stage of their careers to participate in the scientific discussions during the ILSI Annual Meeting, held in January each year.

"The opportunity to join ILSI in Bermuda in January 2018 was really a huge honour and just so special. Attending a meeting on an island was the added bonus. I was one of two delegates that represented the African continent so it was a real delight and privilege. We were recognized during the ILSI Assembly of Members meeting and presented with an award. The recipients of the award were also offered the opportunity to have a poster presentation of research during the ILSI Poster Reception. Conversations started, networks were encouraged, contact details were exchanged and friendships were formed. An important feature of this kind of meeting was that it allowed the recipients of the travel award to identify and acknowledge key focus areas in research but also it afforded us the opportunity to network and engage in conversation. For me, there were many gains; professionally and personally. I look forward to the research outputs that this kind of engagement encouraged.

Naturally, there was time for 'play'. The beaches, pools, golf course, EVERYTHING, was just so beautiful. Bermuda is expensive though (You may end up paying over \$2 for one orange imported from SA). More importantly, the Bermudians are people who leave footprints in your memory and heart. No pretence, no vanity; just simply warm-hearted, friendly, respectful individuals who still know the worth and value of kindness. That was the cherry on top!

Thank you ILSI for the wonderful opportunity! <http://ilsi.org/>



Dr Diane Rip in action at the conference





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AgriSciences faculty having fun at the barter market while celebrating a 100 years. (Engela Duvenhage)

lively barter market during which the ingenuity of staff and students of the Faculty AgriScience were on full display was held earlier in 2018 in front of the Conservatorium. It formed part of the Faculty's centenary celebrations. It felt very much like a fête – but with no money changing hands.

In the spirit of bartering an aubergine was exchanged for a bottle of plant feed, a piece of chocolate cake for a bag full of green peppers, and decorated gift bags for seedlings grown in empty eggshells. The Aquaculture Division brought fresh tilapia, while keen gardeners in the faculty were able to show off products from their own vegetable gardens.

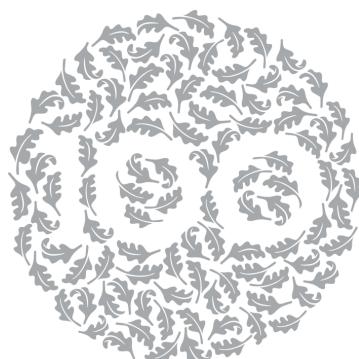
The Dassie vineyard robot was put through its paces during the event. It also saw the handing over of a cheque of more than R1650 donated by faculty members to Dr Rhoda Malgas' Small Things Fund. The fund is used to provide small amounts of money to students in need to buy anything from a calculator to a handbook or an overall.

The Department of Agronomy made the best of a crate of books they were donated, while the Plant Breeding Laboratory offered seasoned popcorn in exchange. The "Vlei Vinke" team of the Department of Agricultural Economics bartered bottled water. Their pièce de resistance was the craftily made labels of little birds around the neck of each bottle.

The judges had a difficult task to choose between the best wares on display. The prize for the most creative idea went to the Good Luck Tin of Anchen Lombard and the Department of Food Science. Each tin was decorated with a distinctly Stellenbosch label, and contained small fun items. The best marketing idea was that of the Department of Plant Pathology. They offered two fruit cocktails named after well-known tropical diseases: "Pineapple Powdery Mildew" and "Watermelon Anthracnose". (As far as we know no-one suffered any side effects!). The prize for the best team spirit was shared between the Department of Soil Science and Monika Bas-son.

The market was officially opened with the ringing of a bell by Prof Danie Brink, dean of the Faculty of AgriSciences. He congratulated faculty members on their creativity and thanked them for their contribution towards delivering outstanding teaching and research at the University. He informed attendees about future plans for the Faculty, which include increasing student numbers.

Market organiser Carin Bruce was pleasantly surprised by the creative ideas and the vibrant atmosphere in the market place. "There were even a few staff members from different departments who had the opportunity of meeting each other face to face for the first time, after having communicated via email and the telephone for many years," said Bruce.



This is what the 'tins of JOY' looked like.

Nuutste gesig in die gange, wel 'n ou bekende

Dr Jeannine Marais, neé Neethling het geen beskendstelling nodig nie. Sy is 'n Voedselwetenskap Alumni en is sedert die begin van 2018 aangestel as lektor vir VW324 (Voeding) en 354 (Sensoriese wetenskap). Haar navorsing fokus tans op die faktore wat die sensoriese eienskappe van vleis en vleisprodukte beïnvloed.

Sy het in 2009 gegradeer met BSc Voedselwetenskap (Biochemie). Vir beide haar MSc en PhD studies was haar fokus op wildsvleis. Sy het haar MSc en PhD grade in 2012 en 2015 onderskeidelik verwerf.

2016 tot 2017 was sy deel van Prof Louw Hoffman se SARChi Chair navorsingsgroep as nadoktorale navorser. (*South African Research Initiative (SARChi) Chair in Vleiskunde*).

Jeannine is 'n Kapenaar in murg en been en sy is getroud met Maties Alumni, Schutz Marais wie sy tydens haar studente dae by die Veeekunde department ontmoet het.

Sy het ook twee jong spruite, Aldo (2) en Phia (8maande). Op hierdie stadium is die twee woelwaters al stokperdjie waarvoor sy tyd het.

Baie welkom by die Voedselwetenskapspan!



Dr Jeannine Marais

Getrude Koopman ook 'n 'nuwe' bekende

Getrude Koopman is sedert Januarie 2018 aangestel as Departemente sekretaresse by Departement Voedselwetenskap. Indien jy nie bewus was van die feit nie, sou jy dit ook nooit kon raai nie. Getrude het dadelik ingeskakel en voel reeds soos een van die span.

Hierdie boorling van Stellenbosch het wat na verwys word as 'wanderlust' ... *a strong desire to travel*.

Sy het vir ses jaar in Europa gewoon waar sy behoorlik kans gekry het om nuwe kulture te ontdek. Sy het 'n verskeidenheid van beroepe (van kelnerin tot gesondheidswerker) beoefen om hierdie droom werklikheid te maak en sedertdien staan haar hande vir niks verkeerd nie.

Getrude is 'n kreatiewe mens en van jongs af stel sy baie belang in die modebedryf. Sy het haarself ook in die rigting bekwaam en het al opgetree as stilis vir 'n mode kleinhandelaar.

In haar vryetyd doen sy welwillendheidswerk as onderwyseres vir mishandelde vroue en kinders. Sy glo dat vroue nie slagoffers moet wees nie, maar liever bemagtig moet word om rolmodelle in hul gemeenskappe en vir hul kinders te wees.

In 2015 het sy haar terugkeer tot Stellenbosch gemaak waar sy sedertdien werkzaam was in die Finansiële afdeling van Universiteit Stellenbosch. Soos die gesegde gaan, was hulle verlies ons aanwins, want die jong, dimaniese dame is definitief 'n aanwins tot enige werkomgewing.



Getrude Koopman

Maties se Departement Voedselwetenskap is “aan die voorpunt” van pogings om ’n nuwe generasie voedselwetenskaplikes op te lei.

Só het Prof. Gunnar Sigge, voorsitter van die departement, onlangs by ’n alumni-geleentheid op kampus gesê.

Prof. Sigge het onder meer verwys na die departement se goeie vertoning op die Academic Ranking of World Universities (ARWU) se jongste graderingslys van tersiëre instellings. Meer as 1 600 instellings se akademiese aanbod in vyf vakgebiede is in dié graderingslys onder die soeklig geneem.

Daarvolgens word die departement beskou as ’n voorloper plaaslik én internasionaal, het hy aangedui. “Om sedert 2017 te kon opskuif van 76-100 na ’n nuwe hoogtepunt van 51-75 (op hierdie lys) is ’n wonderlike viering in die universiteit se eeu feesjaar,” het Prof. Sigge gesê. “Dit is verdere eer om die enigste Suid-Afrikaanse en Afrika voedselwetenskapdepartement te wees in die ‘Top 200’.”

Baie harde werk en spanwerk het gesorg vir hierdie besonderse prestasie, het hy gesê. “Dit is ongelooflik verblywend dat al die personeel-lede se bydraes oor die laaste 23 jaar, sedert 1995, op hierdie manier gevier kan word.”

Prof. Danie Brink, dekaan van die Universiteit Stellenbosch (US) se Fakulteit AgriWetenskappe, het gesê die departement is ’n voorloper op kampus wat betrek op onderrig, navorsing en die sluit van vennootskappe met die private sektor. “Die departement is een van SU se spogdepartemente. Voedselwetenskap se span verskaf puik onderrig én doen uitstekende navorsing. Die departement lewer ook studente met entrepreneursvaardighede wat hulself as bedryfsleiers vestig.”

Die US-rektor Prof. Wim de Villiers het gesê die uitgangspunte wat deur die departement nagestreef word, strook met Maties se nuwe visie om inklusief, innoverend en toekomsgerig te wees. “Dit is ’n plek van uitnemendheid waar sowel personeel as studente denkleiers is wat kennis tot diens van die samelewings bevorder,” het hy gesê.

Prof. Pieter Gouws, die vise-dekaan verantwoordelik vir onderwys en onderrig in die fakulteit, het vertel van planne om ’n sentrum vir voedselveiligheid in die departement te vestig. ’n Aankondiging hieroor word eersdaags verwag, het hy aangedui. Die sentrum, wat nou saam met rolspelers in die private sektor gaan werk, sal fokus op navorsing, onderrig, asook bewusmaking van die publiek en beleidmakers.

Vanuit ’n bedryfsoogpunt is daar ’n groot behoefte om nouer saam met die universiteit te werk om ’n nuwe generasie voedselwetenskaplikes op te lei. Só het Tertius Cilliers, uitvoerende hoof van Syncore Holdings, gesê. Kollektiewe pogings is volgens hom nodig om te verseker daar is voortaan genoeg voedselprodukte van gehalte op die mark wat ook veilig is om te verbruik en volhoubaar geproduseer is.

Prof. Marena Manley, ’n navorser en dosent in voedselwetenskap, het op haar beurt bestek opgeneem van hoe die departement, wat vanjaar sy 66ste bestaansjaar vier, oor die jare ontwikkel het.

Die eerste studente in die departement het in 1951 ingeskryf. In 1952 is die departement deur die Senaat en Universiteitsraad goedgekeur. Johan Burger (85), een van die eerste twee studente wat hul graad in voedselwetenskap aan die departement verwerf het, het in 1955 saam met wyle Jan Hofmeyr graad gekry. Lees ook meer oor Burger se onlangse besoek aan sy alma mater op bladsy 16.



Sprekers tydens die geleentheid was van links na regs: Prof Danie Brink, dr Tertius Cilliers, prof Marena Manley, prof Wim de Villiers, prof Pieter Gouws en prof Gunnar Sigge.



The history of the Food Science Department.

In 1928 the need was identified for trained people to lead the fruit processing industry in the Cape. To this purpose Dr Izak Burger went on a world tour which included the fruit growing areas of California and Australia. In his report he recommended that an educational institution be established to train people to manage the processing of fruit for the export and local market. For various reasons in the early 1930's the report was shelved. Later efforts were thwarted by the outbreak of the war in 1939. It was only in 1946 that the idea was revived.

At the insistence of Dr Izak Burger, with the persuasion of the rector, Professor Bobby Wilcocks, with the assistance of the then Department of Agriculture, and with funding from Imperial Cold Storage and the Deciduous and Dried Fruit Boards, the idea finally came to fruition. The first students were enrolled in 1951. In 1952, the creation of the first Department of Food Science in South Africa (and in Africa) passed through the Senate and University Council and Professor RI Nel, then head of the Fruit and Fruit Technology Institute (FFTRI), was appointed as special professor in Fruit Technology.

In 1954, the Food Science Building was completed. In 1955, the first two students received BSc in Food Science degrees: Johan Burger (son of Dr Izak Burger) became the managing director of Letaba Citrus Processors in Tzaneen, a position he held for years. In 2013, at the age of 80 he has not yet considered final retirement from the Food Industry. Jan Hofmeyr had a long career at Metal Box/Nampak R&D during which he made a significant contribution to the maintenance, improvement and safety of packaged foods in South Africa for local and export markets. This legendary Food Scientist sadly passed away in 2013 and as a tribute to his legacy Nick Starke of Nampak R&D donates an annual book prize for the best 1st year Food Science student at SU.

It is interesting to note that the first department of food science in Britain was set up at the University of Strathclyde, Glasgow, Scotland in 1958.

In November 2010 an extensive expansion and refurbishment of the Department was undertaken, thanks to an investment of R23 million by the Department of Higher Education and Training and Stellenbosch University's Hope Project.

Professor Nel has been followed subsequently as head of the Department by Prof Chris Smit (1960 - 67), Prof JJ Doesburg, Prof Brian Koeppen (1970 - 80), Prof Gerard van Noort (1981 - 1993), Prof Trevor Britz (1995 - 2004), Prof Corli Withuhn (2005 - 2009) and Prof Gunnar Sigge, the current Departmental Chairperson took over the reins in 2009.



History of Food Science intertwined with that of the Burgers

Jorisna Bonthuys

"In the Burger family, the apple certainly does not fall too far from the tree."

So says Johan Burger (85), a former Stellenbosch University (SU) student, who recently visited the campus.

Burger, the first student who obtained his degree in food science at SU's Department of Food Science, graduated in 1955 alongside the late Jan Hofmeyr. They were the first two South African Food Science graduates .

Although Burger is now retired and lives in Great Brak River in the Southern Cape, he is still involved in the citrus industry as director of African Realty Trust. His wife, Pauline, elaborates as follows: "Johan will never really retire. He is still actively interested in developments in the agricultural sector and the food industry."

The couple recently visited the department in the Faculty of AgriSciences. They were accompanied by their daughter, Dr Kathleen Coetzee, and a grandson, Pieter. Coetzee, also a Matie Alumni, has two sons who are both currently studying in the agricultural field. Pieter Coetzee (23) is a fourth-year student at the Department of Viticulture and Oenology. His brother, Christiaan (19), is enrolled as a second-year BSc Agric student (in horticulture and plant genetics).

The Burgers' family history is closely related to that of the department. Izak (Sakkie) Burger, Johan's father, was a founding member of the department. He also made a major contribution to the development of the South African preservation and dried fruit industry. He received his schooling in the Koo and later in Montagu, where he matriculated in 1923.

In 1927, Izak Burger obtained his agricultural degree (BSc Agric) from Maties, after which he worked in Australia and California, among others. He was later appointed as research officer and lecturer in food science at Elsenburg. Izak Burger succeeded Dr Reuben Nel as head of the Western Cape Fruit Research Station, nowadays known as the Fruit and Fruit Technology Research Institute.

Johan says his father had a lifelong interest in food science. "My father was very fond of agriculture and science," remarks Johan. "He also had the ability to share his interest and knowledge with others."

Johan was born at Elsenburg in 1933 where his father worked for years. He grew up in Stellenbosch and later followed in his father's footsteps. "One could say I grew up in the laboratory at Elsenburg."

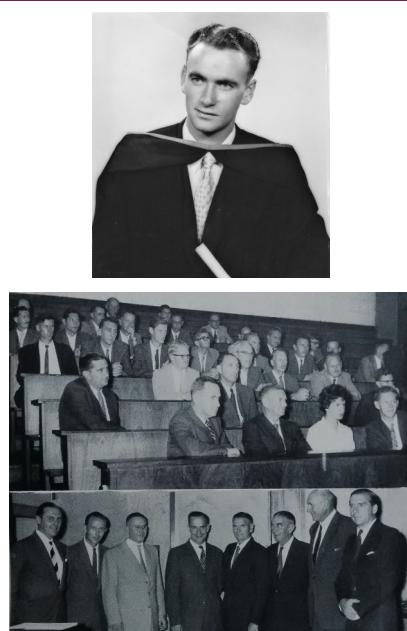
Food science is an exciting field of study that unlocks a wealth of opportunities for students, says Johan. "I am amazed at the development and how things (at the department) have changed over the years."

Johan obtained his master's degree in the department in 1958. His thesis deals with the pre-treatment of maize flour and his instant pea soup made newspaper headlines at the time.

Johan later worked at Minute Maid in Letaba. He has been involved with Letaba Citrus Processors (LCP) in Tzaneen since 1961, later becoming director of the company. LCP, one of the largest citrus producers in the country, is involved in processing oranges, sprouts, guavas and mangoes.

The first students in the department were enrolled in 1951. In 1952, the department was approved by the Senate and University Council. Jan Hofmeyr, the other first food scientist, had a successful career at Metalbox/NAMPAK R & D, where he played a leading role in developing and improving packaging materials for the local and overseas markets.

Prof Danie Brink, Dean of the Faculty, and Prof Marena Manley, a senior lecturer at food science, accompanied the Burger couple during their visit.



As een van die eerste vier fakulteite aan die Universiteit Stellenbosch het AgriWetenskappe 'n onuitwisbare bydrae tot landbou-onderwys en -navorsing in Suid-Afrika gelewer.

**Hierdie is 'n uittreksel uit Agriwetenskappe se feesboek wat in 2018 tydens die Eeufeesjaar verskyn.
Meer inligting oor die feesboek volg binnekort of enige navrae kan gerig word aan voedselw@sun.ac.za**

Die vyftiger- en sestigerjare

Prof WH van der Merwe van die Departement Genetika was van 1950 tot 1952 die dekaan, en prof CJ Theron, 'n bekende wingerdboukundige, van 1953 tot 1956. In 1957 is hy opgevolg deur prof JC Swart, professor in veeteelt. Prof Black is in 1959 as dekaan aangestel, maar is slegs tien dae na sy aanstelling oorlede. Prof Theron het vir 'n tweede termyn dekaan geword tot 1961, waarna hy deur prof JTR Simm, 'n agronoom, opgevolg is. In 1962 en 1963 het prof Theron 'n derde termyn as dekaan gedien, 'n rekord tot op hede. 'n Bekende pluimveekundige, prof CR Liebenberg, het van 1967 tot 1973 as dekaan gedien.

Die Departement Genetika het in hierdie tydperk aansienlike groei beleef en is uitgebrei om byvoorbeeld 'n gevorderde kursus in veeteelt, sitologie en biometrie in te sluit.

In 1952 is die JS Marais-gebou ingewy en die nuwe Departement Voedselwetenskap is gestig, wat voorsien het in 'n behoefte wat reeds in 1928 geïdentifiseer is vir opgeleide persone om die Kaap se vrugteverwerkingsbedryf te lei. Prof RI Nel, hoof van die Instituut vir Vrugte en Vrugtetecnologie (nou Infruitec), was die departement se eerste professor. Die Voedselwetenskap-gebou is in 1954 voltooi en die eerste twee studente het in 1955 hul BSc-graad op hierdie gebied ontvang.

Die Fakulteit het 'n beduidende impak op bosbou gehad. 'n Tweede leerstoel in houtteknologie is in 1950 ingestel, hoofsaklik voortgedryf deur 'n jaarlike bydrae van die Transvaalse Kamer van Mynwese en 'n paar private bosboumaatskappye. Neentig persent van alle senior bosbeampies in die regering se Departement Bosbou was teen 1956 gegraderdes van die US, toe hierdie departement 'n afsonderlike Fakulteit Bos- en Houtkunde geword het.

Die Departement Plantsiekteleer het in 1961 in twee verdeel en twee fakulteite is in verskillende departement gehuisves. Die Departement Plantsiekteleer het gebly in (wat nou) die Fakulteit AgriWetenskappe (is), terwyl die Departement Mikrobiologie sedertdien onder die Fakulteit Natuurwetenskappe ressorteer, waar kursusse aan studente van beide fakulteite onderrig word.

Theron se opvolger as hoof van die Departement Wynkunde was prof CJ Orffer onder wie se leierskap hierdie departement bykomende dosente, tegniese beampies en assistente aangestel het.

Prof JC Swart, wat in 1963 en 1964 'n tweede termyn as dekaan gedien het, is tot en met 1966 opgevolg deur prof IS Perold van die Departement Landbouchemie. In hierdie tydperk is indrukwekkende nuwe navorsingsfasiliteite by die Welgevallen-proefplaas onder leiding van prof EW Laubscher, hoof van die Departement Agronomie, ingerig. Die proefplaas het sinoniem geword met wintergraan en is bekend vir uitnemendheid in opleiding en navorsing.

'n Departement Skaap- en Wolkunde het in 1965 van die Departement Vekundige Wetenskappe afgeskei. Nadat 'n leerstoel in wynkunde in 1968 ingestel is, is twee afsonderlike departemente naamlik Wingerdbou en Wynkunde gevorm.

Teelprogramme vir korog en durumkoring in die Departement Genetika is met befondsing van die bedryf uitgevoer en die uitkoms was die bekendstelling van ses nuwe durum- en vyf nuwe korokultivars.

'n Keerpunt word bereik

'n Mikrobioloog, prof HA Louw, was vanaf 1973 vir 'n indrukwekkende 18 jaar die dekaan. 'n Keerpunt het vir die Fakulteit aangebreek. Die lang verbintenis sedert 1926 tussen die regering se Departement Landbou en die universiteit se Fakulteit Landbou het geleidelik tot 'n einde gekom. Teen 1975 is die "Stellenbosch-Elsenburg Fakulteit Landbou", soos dit dikwels na verwys is, en die Elsenburg Landboukollege finaal uitmekaar.

Universiteitspersoneel wat direk onder die regering se Departement Landbou gevall het, het universiteitspersoneel onder die regering se Departement Hoër Onderwys geword. Fasiliteite is verdeel, met die universiteit wat onder meer die proefphase in sentraal-Stellenbosch en Mariendahl, ongeveer 14 km noord van Stellenbosch en aanliggend aan die historiese plaas Elsenburg, waar die kollege geleë is, behou het.

Die Fakulteit se naam is in 1974 van Landbou na Landbou- en Bosbouwetenskappe verander. In 2000 is die Fakulteit Bosbou weer geïnkorporeer en die Fakulteit is hernoem tot Landbouwetenskappe, en in 2005 het dit AgriWetenskappe geword.

(artikel vervolg op volgende bladsy)



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Hierdie is 'n uittreksel uit Agriwetenskappe se feesboek wat in 2018 tydens die Eeufeesjaar verskyn. Meer inligting oor die feesboek volg binnekort of enige navrae kan gerig word aan voedselw@sun.ac.za

Die 25 jaar tot 2000

Die Departement Entomologie is onder voorsitterskap van prof J Giliomee as 'n leier op die gebied van insekplaagbestuur geposisioneer. Die naam is na Departement Entomologie en Nematologie verander en die eerste kongres van die SA Entomologiese Vereniging is in 1974 by die US aangebied.

In 1977 het grondgedraagde siektes byna 'n ramp in die tamatie- en komkommerbedryf veroorsaak en dit het aanleiding gegee tot die stigting van die Vereniging vir Groente onder Beskerming. Verskeie produsente het die US in staat gestel om 'n kweekhuiskompleks by Welgevallen op te rig – die begin van plaaslike navorsing en die ontwikkeling van 'n kweekhuisbedryf.

In 1978 het prof E Kassier 'n aansienlike bydrae op die gebied van landbouekonomie gelewer met die bekendstelling van die BAgric (Bestuur)-graad en die metamorfose daarvan tot die BAgricAdmin-graad.

Die Departement Pomologie se naam is in 1979 terug verander na Departement Hortologie, onder meer om verwarring met die vorige naam "Tuinboukunde" te verminder.

Onder leiding van prof P Maree het die Departement Agronomie en Weiding die voorste sentrum van kundigheid in Suid-Afrika se hidroponeise bedryf geword. Navorsing het studente se opleiding in die produksie van groente in kweekhuise aangevul.

In 1989 het die Departement Genetika vir die eerste keer mensgenetika as deel van die kurrikulum ingesluit, wat tot 'n skerp toename in studentegetalle in hierdie departement (interfakulteit) gelei het. 'n Afdeling Akwakultuur is ook in 1989 tot stand gebring om tot hierdie snelontwikkelende bedryf by te dra.

Gedurende die dekade-lange dekaanskap van prof MJ Hattingh, 1991 tot 2000, was daar toenemende bewustheid van die belang van nagraadse navorsing en die belang van staatsubsidies om dit finansieel lewensvatbaar te maak – 'n stap wat nagraadse programme versterk het.

Sterk navorsingsbande is in 1994 onder leiding van prof GA Agenbag (hoof, Departement Agronomie en Weiding) met die Proteïennavorsingstigting en die Wintergraan Trust gesmee. Hierdie instansies bly die departement se hoofbron van befondsing vir navorsing in graangewasse.

Beduidende struktuurveranderings in die Fakulteit het ná 1994 onder meer die samesmelting van drie departemente (veeteelt, pluimveekunde en skaap- en wolkunde) ingesluit – in wat vandag as die Departement Veeekundige Wetenskappe bekend staan. Die afsonderlike departemente van wynkunde en wingerdbou het die Departement Wingerd- en Wynkunde geword. Die Instituut vir Wynbiotegnologie, wat in 1995 gevestig is, het 'n derde komponent by hierdie departement gevoeg en sodoende die sterke multidissiplinêre aard bevorder.

'n Hulptoelaag wat sedert 1956 deur die nasionale Departement van Waterwese en Bosbou aan die Fakulteit betaal is, is in 1996 gestaak en het die universiteit gedwing om verskeie departemente te sluit.

Die Instituut vir Plantbiotegnologie (IPB) is in 1998 in oorleg met die SA Suikerrietnavorsingsinstituut tot stand gebring. Strategiese herstrukturering by die universiteit het beteken dat die IPB verskuif is van die Departement Plantkunde (Fakulteit Natuurwetenskappe) na die Departement Genetika in die Fakulteit AgriWetenskappe waar dit nou as 'n onafhanklike eenheid funksioneer.

Aanbreek van die nuwe millennium

Die naam van die Departement Agronomie en Weiding is in 2000 verander na die Departement Agronomie, hoofsaaklik om die naam inklusief vir die dissipline groente onder beskerming te maak.

Die Fakulteit Bosbou, bestaande uit vier departemente (Boskunde, Houtkunde, Natuurbewaring, en Parke en Ontspanning) is in 2000 in die nuutgestigte Fakulteit Landbou- en Bosbouwetenskappe opgeneem as die Departement Bos- en Houtkunde. Dit sluit twee studierigtings in: Boskunde en Natuurlike Hulpbronbestuur, en Hout- en Houtprodukkunde.

Die Instituut vir Plantbiotegnologie, sedert 2004 onder direkteurskap van prof Jens Kossmann, bestaan uit 'n multikulturele en interdissiplinêre span navorsers en nagraadse studente.

Daadwerklike pogings deur die Departement Plantpatologie het daartoe gelei dat die getal nagraadse studente vanaf 2006 verdubbel het, dat interaksie met akademiese en navorsingsgroepe (ook in die buitenland) uitgebrei is, en dat die departement se profiel aansienlik gediversifieer is.

Prof Umezuruike Linus Opara se navorsingsspan is leiers op die gebied van na-oespraktyke. Die SARChI-navorsingsleerstoel in na-oestegnologie is in 2009 aan hom toegeken. Hy het in 2015 die AU Kwame Nkrumah- kontinentale wetenskaplike toekenning vir senior navorsers van die Afrika-Unie vir sy werk in na-oestegnologie ontvang.

Sedert 2014 ondersteun die Daan Strydom HORTGRO-wetenskapbeursfonds (vernoem na 'n voormalige professor in tuinbou) behoeftige, verdienstelike studente.

Prof L van Huyssteen, hoof van die Departement Grondkunde, het in 2000 dekaan van die Fakulteit geword. Prof K Theron (voorsitter, Departement Hortologie) het in 2007 as dekaan waargeneem. Prof M Karaan het vir twee termyne tot 2014 as dekaan gedien, waarna prof D Brink waarnemende dekaan geword het. In 2017 het hy die Fakulteit se twintigste dekaan in 99 jaar geword.

