



# Newsletter

December 2018 Desember

Dit is vir my 'n voorreg om aan die einde van 2018 die Nuusbrief aan almal bekend te stel. Soos gewoonlik is dit weer propvol interessante nuus, gebeure en hoogtepunte in die Departement. Almal wat 'n artikel, storie of berig geskryf het dra by tot die geheelbeeld van die nuusbrief. In besondere wil ek vir Anchen Lombard dankie sê vir haar passievolle toewyding om elke uitgawe te publiseer!

Soos gewoonlik was 2018 'n jaar met heelwat hoogtepunte, maar ek wil 'n paar van hulle uitlig. Die personeel was nog altyd die rede vir die sukses van die Departement, en hierdie jaar het ons twee nuwe personelede bygekry. Me Getrude Koopman het aan die begin van Februarie die ontvangskantoor oorgeneem as Departementele Beampte, en vinnig die leisels oorgeneem en hanteer hierdie belangrike kantoor op 'n kalm, vriendelike en professionele manier. Dit voel asof sy al heelwat langer die skip stuur. Dr Jeannine Marais is as Lektor aangestel en het op 1 Mei haar pos ingeneem. Jeannine het ook vinnig ingepas en hanteer reeds 'n paar nagraadse studente, Voedselwetenskap 324, 354 en was ook betrokke by die Produktontwikkelingsmodule.

Last year we reported on the Department being listed in the ShanghaiRanking's annual Global Ranking of Academic Subjects (GRAS). I'm pleased to report that we are again listed in the rankings and have, in fact, moved up the 51-75 ranking category for 2018 (up from the 76-100 ranking of 2017). This is indeed a wonderful achievement, considering that the next African food science and technology department in the top 300, ranks in the 201-225 category. Congratulations to all the staff and researchers who contribute to this success.

Another major coup for the Department was the launch of the first Centre for Food Safety in South Africa. The Centre will hopefully grow into an internationally renowned food safety research hub, collaborating locally and internationally. The Department is not stopping at one centre and plans are already afoot to also initiate a Centre for Sensory Science and a Centre for New Processing Technologies. Please feel free to contact me for more information.

A highlight every year is the Final Year Students' New Product Development Day and this year was no different. The student groups again excelled, not only in the products they developed, but also in the way they presented their work. We will watch this space with bated breath for the next commercialised product (read elsewhere in this newsletter of the various products).

Finally, I'd like to acknowledge not only the staff for the incredible work during 2018, but all the "Friends of Food Science" that also help make this Department great - collaborators, industry partners, funders, donors, sponsors, guest speakers, advisors, alumni and friends. I wish you all a very happy, peaceful and restful Festive Season!

Prof Gunnar Sigge  
Departmental Chair: Food Science





## Launch of the Centre for Food Safety

### *A first for South Africa*

**Stellenbosch 06 November, 2018** - Stellenbosch University, in conjunction with Tiger Brands, will today launch the Centre for Food Safety. The Centre will be hosted in the Faculty of AgriSciences, more specifically in the Department of Food Science, and will be a one-of-a-kind applied food science research consortium founded by Stellenbosch University and the food industry - with Tiger Brands as its founding member. It will provide expert opinion and academic support to the industry, conduct research in food safety and participate effectively with government to ensure that food safety regulations are based on sound scientific evidence.

According to Professor Pieter Gouws, Acting Director for the Centre for Food Safety, "We aim to provide stakeholders with the opportunity to develop and exchange knowledge, experience, and expertise in food safety, food defence and food processing. Additionally, the Centre will play a leading role in consumer education on food-related issues."

The Centre will be independently managed by Stellenbosch University. Tiger Brands and members for the food industry will support the Centre through funding and the sharing of food safety insights.

Boasting some of the greatest minds in the fields of microbiology, food science and food safety, the Centre is set to bring in relevant expertise and insights to create a robust food system for South Africa. This includes Professor Wilhelm Holtzapfel - President of the International Commission of Food Microbiology and Hygiene; Professor Mieke Uyttendaele - Food Safety and Food Quality from the University of Gent, and Professor Stephen Forsythe - former Professor of Microbiology at Nottingham Trent University and Prof Pier Sandro Cocconcetti, Chair Professor of Food Microbiology at the Università Cattolica del Sacro Cuore (UCSC) in Italy.

"We have a mandate to work across all faculties and disciplines within Stellenbosch and other entities, institutes, national and international higher education institutions, and public and private enterprises in South Africa and abroad," added Gouws.

According to Lawrence MacDougall, CEO of Tiger Brands and founding partner of the Centre for Food Safety, "Food safety is an essential public health issue. When food systems fail, their consequences are extremely costly - for public health, consumers, food producers and the economy in general. With the global increase in the prevalence of foodborne diseases, science-based food controls are essential for the protection of food products."

The launch is the culmination of months of negotiations and hard work and is a result of a commitment by Tiger Brands to improving safety, quality and hygiene associated with food production, distribution and storage in South Africa. The company has consistently highlighted the need for a multi-sectoral and multi-stakeholder approach to strengthening the food system in South Africa and that it would like to be at the forefront of such initiatives. "The launch of the Centre, together with the funding provided, provides demonstrable, tangible evidence of this desire by Tiger Brands," said Professor Gouws.

"Improving South Africa's food management system through fostering better integration and collaboration across key role players, including food manufacturers, government and academia was crucial for us. Through collaboration, the Centre has a pivotal role to play in driving food safety forward across the industry - this is far bigger than Tiger Brands. It is a national imperative," added Mac Dougall.

"With the worldwide increase in food-related diseases, developing countries bear the greatest burden. Africa has the highest incidence of food-related diseases and associated deaths amongst all age groups. Food-related diseases also have a significant impact on consumer health and the viability of the food industry and associated businesses. With this in mind, the need for a centre dedicated to food safety is more important than ever before," said Professor Pieter Gouws.

Whilst Tiger Brands is supporting and funding this Centre, its independence will be a cornerstone in the Centre's ability to share cutting-edge research and insights with the entire industry. "We encourage support from other stakeholders, including government role-players, retail partners and the industry, to strengthen the capacity of the Centre to meet its objectives," concluded MacDougall.

[Find out more about the Centre for Food Safety at Stellenbosch University \(CFS@SU\)](mailto:CFS@SU)





# *The launch*



Photos from top left corner: Prof Pieter Gouws, Dr Khotso Mokele, Dr Debora van der Merwe, Mr Ebrahim Mohamed, Prof Wim de Villiers, Prof Gunnar Sigge, Ms Sandy Corbett, Mr Arnold Prinsloo & Mr Andrew Cocks

Photos: (Andrew Swarts)





**CENTRE FOR  
FOOD SAFETY**  
INNOVATION THROUGH COLLABORATION  
UNIVERSITEIT STELLENBOSCH UNIVERSITY



UNIVERSITEIT  
iYUNIVESITHI  
STELLENBOSCH  
UNIVERSITY

**100**  
1918-2018

*saam vorentoe • masiye pbambili • forward together*





## *Paula Smit Italy exchange, Padova, northern Italy.*

### **Ciao a tutti!**

Back from Italy with my heart full and my jean size bigger. This experience was what all will say when returning home from an extended time abroad alone: challenging, but worth it. In short, my time spent there entailed co-operation with the university of Padova, specifically at the Agripolis campus. Prof Antonella dalle Zotte and Dr Marco Cullere supervised this South African girl, not only academically, but how to fit in amongst all the Italians. As my masters project is focused on salami and inhibiting rancid, off-flavours which naturally develop over time in fatty products such as these, Italy was the perfect place to learn from the masters. I had the opportunity to make salami with experienced producers, visit cured meat factories and indulge in their culture and love for cheese, wine and cold, cured meats in general. I was privileged to attend a Meat Science summer school, arranged by Prof Dalle Zotte and also attended by my main supervisor, Prof Louw Hoffman. This journey was challenging in many ways, but I would encourage anyone who gets the opportunity, to take it on with both hands! Relationships built, skills learnt, self-confidence gained and appreciation for what we have back home have grown considerably. What I took home from Italy, is the beauty of simplicity and the love in a meal shared. Their gelato is irresistible, hence the bigger jean size. Personally I prefer South African coffee. (Paula Smit)



### **Agriwetenskappe-denkleiers vereer**

Die Afdeling Korporatiewe Kommunikasie het twee Institusionele Toekennings vir Uitnemendheid aan die Fakulteit AgriWetenskappe vir 2018 oorhandig. Prof Pieter Gouws (regs), Visedekaan belas met Leer en Onderrig in die Fakulteit en verbonde aan die Departement Voedselwetenskappe, is as "Denkleier" vereer. Die Fakulteit se landskap-kunsprojek is eweneens as "Nuusmaker" vereer. "Die Aarde," wat deur Strijdom van der Merwe, 'n bekroonde landskapkunstenaar, in opdrag van die Fakulteit geskep is, is vanjaar deel van die Fakulteit se Eeufeesvierings. Die kunsprojek bestaan uit twee reusesirkels van koring en canola, elk met 'n deursnee van 100 meter, wat van die N2 naby die plaas Boontjieskraal in die Overberg besigtig kan word.

Links op die foto is die Dekaan van die Fakulteit, prof Danie Brink, en prof Pieter Gouws met beide sertifikate.

(Uit Agriwetenskappe Nuusbrief)





## NIR spectroscopy short course at Kaset-sart University (KU), Bangkok, Thailand

Collaboration between the Food Science Departments of KU (Bangkok, Thailand) and SU enabled the opportunity for a week-long short course on *Near-infrared Technology: getting the best out of light (Practical Implementation and Use of Near-infrared Spectroscopy)* presented by Prof Marena Manley (SU) in association with Dr Phil Williams (PDK Grain, Nanaimo, British Columbia, Canada) at KU. This short course was funded by the Food Security Center, University of Hohenheim, Germany as well as KU. The short course was attended by more than 30 participants comprising postgraduate students as well as employees from private companies. Two NIR instrument companies (Bruker and BÜCHI) demonstrated equipment and software. The short course included a visit to the Synchrotron Light Research Institute (SLRI) in Nakhon Ratchasima about three hours' drive from Bangkok. We are looking forward to continued collaboration with colleagues from the Department of Food Science and Technology at Kasetsart University. (Prof M Manley)



AC21 SU participants, Prof Marena Manley, Willem Botes, Dr Elsje Pieterse, Dr Lindy Rose and Dr Maricel Krügel, Kasetsart University, Bangkok.

**The Faculty of Agro-Industry** at Kasetsart University, Bangkok, Thailand invited, amongst others, Dr Krügel and Prof Manley to be part of the Joint mini-symposium on "Agro-Industry Research for Well-Being" from 12-14 November 2018. The titles of the presentations were: *Incorporating the global food industry challenge "Profit rather than waste" in trial design and product development* and *Near infrared hyperspectral imaging for whole grain evaluation*, respectively.

The other universities that were invited were Nagoya University based in Japan and Universitas Gadjah Mada in Indonesia. The staff from Kasetsart University were incredibly friendly and hospitable. Amongst others, a factory visit to C.P. Retailing and Marketing Co., Ltd. was organised and a highlight for us food scientists. It is one of the leading companies in production and distribution of ready to eat food and bakery products to especially convenience stores in Thailand. (Dr M Krügel)



## Prof Lizette Joubert ontvang Erepennig van die SA Akademie se Fakulteit Natuurwetenskap en Tegnologie

As erkenning van haar toegewyde bydrae tot rooibos- en heuningbosnavorsing, sowel as die kruietee-bedryf is Professor Elizabeth (Lizette) Joubert (Hoofnavorser, LNR Infruitec-Nietvoorbij) vroeër vanjaar vereër met die SA Akademie se Erepennig van die Fakulteit Natuurwetenskap en Tegnologie.

Lizette se loopbaan as internasionaal erkende navorser begin in 1983 met haar MSc in Voedselwetenskap-studie wat handel oor die ontwikkeling van 'n rooiboskitstee. Haar verdere navorsing op rooibos (*Aspalathus linearis*) en heuningbos (*Cyclopia* spp.) lei tot die ontwikkeling van verskeie prosesse wat deur die rooibos- en heuningbosindustrieë geïmplementeer word. Vanaf 1990 brei die omvang van haar navorsing uit tot die bevordering en bewusmaking van die gesondheidsaspekte van veral rooibos, maar ook heuningbos. Gedurende 1995 begin sy met navorsing op die antioksidanteienskappe van rooibospolifenole. 'n Publikasie wat uit die navorsing volg, 'n eerste in hierdie navorsingsveld, is reeds meer as 450 keer deur nasionale en internasionale navorsers aangehaal.

Sy beywer haar ook vir die bevordering van waardetoewoeging tot rooibos en heuningbos, bo en behalwe die gebruik daarvan as kruietee. Dit is veral haar belangstelling in en kennis van die fenoliese komponente van dié tee wat lei tot internasionale erkenning as navorser.

Lizette en haar navorsingsgroep publiseer die afgelope 35 jaar meer as 200 eweknie-geëvalueerde navorsingspublikasies en sy tree as studieleier en mentor op vir meer as 50 nagraadse studente. Vir haar bydrae as studieleier word sy aangestel as buitengewone professor by die Departement Voedselwetenskap, Stellenbosch Universiteit. Sy is ook betrokke as mede-uitvinder van verskeie patente.

Lizette se uitstekende fundamentele en toegepaste navorsing lewer 'n betekenisvolle en volhoubare bydrae tot die rooibos- en heuningbos-bedrywe. Sy is betrokke by verskeie multi-dissiplinêre projekte saam met navorsers in Suid-Afrika en die buiteland. Sy inisieer en konseptualiseer ook verskeie gesamentlike navorsingsprojekte met betrekking tot die biobeskikbaarheid, anti-diabetiese en anti-vetsug eienskappe van rooibos en heuningbos. Dit is veral haar uitstekende insig in die chemiese samestelling en bioaktiwiteit van fenoliese komponente wat 'n groot bydrae lewer. (Prof M Manley)



Prof Lizette Joubert ontvang haar Erepennig by die Bekroningsplegtigheid, saam met Prof Irma Eloff, voorsitter van die Akademie en die ander prysweners. Prof Marena Manley het die huldigingswoord gelewer.



# EUROSENSE 2018

Eighth European Conference on Sensory and Consumer Research

**A SENSE OF TASTE**

2-5 September 2018 Verona, Italy



Dr Erika Moelich was invited as young researcher to present part of her PhD results at **EuroSense 2018**.

This prestigious bi-annual European conference (held in Verona, Italy in 2018) focusses on sensory and consumer science research. The title of Dr Moelich's presentation was 'Polarized sensory positioning: a case study with trained assessors and honeybush herbal tea'. This PhD study formed part of *RapidCheck*, an international research project spearheaded by a Norwegian food research institute, Nofima. The aim of *RapidCheck* was to develop methods that enable food industries world-wide to assess the sensory quality of food products in a valid, quick and easy manner.

The results of three other PhD/MSc research projects on South African herbal teas were presented via poster sessions at **EuroSense 2018**:

- Lara Alexander, PhD candidate: 'Bitter Taste Modulation by Phenolic Compounds Contributes to the Bitter Intensity of Honeybush Herbal tea';
- Brigitte du Preez, PhD candidate: 'Development of Chemical-based Reference Standards as Training and Calibration Tools for Rooibos and Honeybush Aroma Lexicons';
- Manzi Sishi, MSc candidate: 'Sensory Analysis: A Significant Tool for Sensory Profiling of Rooibos Waste Material'

Prof Lizette Joubert (ARC Infruitec-Nietvoorbij, Stellenbosch) and Nina Muller (Food Science, SU) supervised the above-mentioned post-graduate studies. Prof Lizette Joubert, an esteemed researcher at the ARC recently received an award from the South African Academy for Science and Arts for the advancement of rooibos and honeybush research on international level.

Photo below: Dr Erika Moelich presenting at EuroSense 2018 ; Beautiful city of Verona

(Article and photo's: M Muller, E Moelich)



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## IUFoST World Food Science Congress, Mumbai, India

I had the pleasure of travelling to India to attend the IUFoST World Congress of Food Science and Technology in Mumbai from the 23rd to 27th October 2018. The Congress programme had a specific focus on food security and feeding 9 billion people by 2050. Food Processing, food loss and waste, food, health & nutrition and food safety were major sub-themes. The recent Listeriosis outbreak also featured on the programme. Major themes to come out of the Congress were the need to embrace new technologies, including gene editing and GE crops, novel processing technologies, importance of traceability and food safety and also a stronger focus on nutritional security. Overall, the conference was very interesting, especially the fact that India has a Minister of Food Processing - she delivered a very good presentation. I think every country should have a Minister of Food Processing.

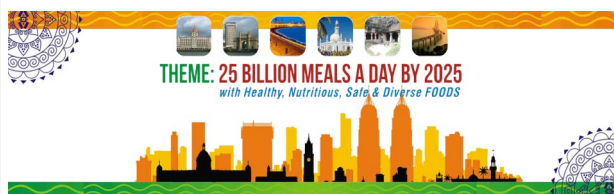
The taxi trip from the airport to my hotel was an experience. From the driver stopping on the highway to relieve himself to me having to use my GPS on my phone to guide him to my hotel. The Fortune Select Exotica hotel was very comfortable, but not particularly exotic. Staying only 3.5 km from the conference venue shouldn't normally be a problem, but I paid 400, 960, 350 and 35 Rupees for the same trip depending on whether it was the hotel car, which hotel's car and whether it was in a Tuk-tuk.

The Indian food, however, was very good and the variety of non-meat dishes on offer that still tasted great, was amazing. Kingfisher beer also wasn't too bad, especially after a hot-humid day. The fact that you could find a 5-star hotel right next to an abandoned building beset by squatters and then find an iStore in the next building is very confusing to the senses.

The Congress was a very colourful display of food science and technology - as one would expect in India. (Prof G Sigge)



Photo left: Prof Gunnar Sigge  
Photo right: IUFoST 2018, India



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## International honour for Gunnar Sigge

Prof Gunnar Sigge, head of the Food Science department, has been invited to chair two international committees. Firstly, the International Union of Food Science and Technology (IUFoST) has asked him to chair their Education Committee for a two-year term from 2018-2020. This committee is one of the Union's Scientific Focus Committees. Its overall objective is to manage and coordinate all education programs and activities for IUFoST, in line with the Union's goal of increasing global excellence and qualifications of food scientists. This is achieved through: (1) training and educational program evaluation; (2) leadership development; and (3) outreach and partnership programs to diverse and regional groups around the globe.

Furthermore, the Institute of Food Technologists (IFT) in the USA has invited Prof Sigge to serve on their Annual Meeting Scientific Programme Advisory Panel (AMSPAP) for another two years, and chair the panel for 2019. This after having served on the panel for the past three years as a panel member, Chair and Past-Chair. IFT's Annual Meeting and Expo is a yearly event featuring ca. 100 scientific sessions, 1 300 exhibitors and attracts in excess of 20 000 delegates.

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Click here to watch the trailer for the movie Food Evolution.

The full movie can also be downloaded.

<https://www.youtube.com/watch?v=t654yDVIDpo>

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# Sponsors NPD 2018

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# NPD day 2018



Congratulations to the class of 2018 on the standard of your work and presentations on 11 October 2018  
**With the level of work you presented you were ALL winners!**  
Science met creativity and we are extremely proud of you.



We want to thank the following institutions for sponsoring snacks and beverages for our big day.  
**Durr Bottling, Woolworths, Cecilia's farm, Atsource, Chill beverages, In2Food**





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On 11 October 2018 Food Science hosted another successful NPD day. We were honoured by Prof Danie Brink (dean of the AgriSciences Faculty, SU), Prof Wim de Villiers (rector and vice-chancellor, SU) and Mr Patrick Sithole (supply chain executive from Tiger Brands) attending the students' presentations. A framework agreement for the (at that time) planned Centre for Food Safety were signed.





## NPD day presentations: October 2018

The theme was: 'Local is lekker' ... in other words, a tasty product with a local flavour

The Brief: To develop an innovative product from local and sustainable sources for the LSM group <5.

**These prizes were awarded to the following groups (see group number in brackets)**

InnovUS—Most innovative product (1, EasyBeans)

SynNovation—Most innovative product (4, Amaasing & 6, Alfa-Snaps)

Synercore—Most commercially viable product (4, Amaasing)

SAAFoST—Most sustainable project according to the theme (5, OFF THE HOOK fish spread)

SAAFoST—Most commercially viable product, voted by the audience (4, Amaasing)

Food Safety Excel—Best communication of integral food science concepts to a broad audience (1, EasyBeans)

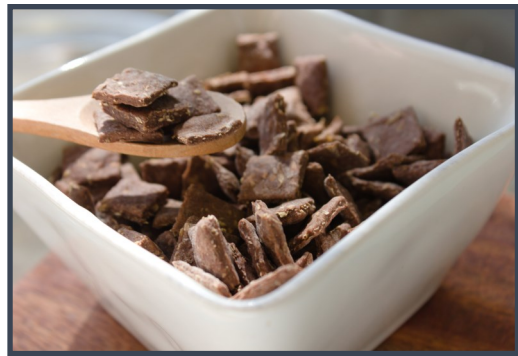
FACTS—Complying best with the appropriate regulations in SA (7, SorghiSip)

Microchem—Best liked product, voted by the audience (4, Amaasing)

NSF—Best HACCP plan (5, OFF THE HOOK fish spread)



Nicole Lamprecht, Anmar Louw, Lieschke de Waal, Caitlin Burgess, Stefan Lourens, Jessica Putter, Reinhardt du Plessis, Matthew May, Carla le Roux



1. Spenties: A breakfast cereal made from brewer's spent grain, butternut and wheat flour



Lebo Mahlangu, Sebastian Orth, Kyle Corbett, Layken Curnow, Stephanie Phelps, Sarah Kang, Jo-Mar Venter, Emma van der Merwe, Liza Cloete



2. EasyBeans: Bean balls in a Chakalaka sauce



Stephanie Blom, Anke Bleeker, Faiza Abdullahi Hassan, Lara Moller, Gina Barkema, Heleen Kriel, Ahmed Patel, Julindi Nothnagel



3. Bambara Bites: Chakalaka sandwich slice





Jani Bisschoff, Greg Erlangsen, Rianie Strydom, Caroline Bursey, Zenon Burns, Chanté Clarke, Micaela Clatworthy, Nicole Jenneker, Alicia Petrus



4. Amaasing: Lactose free Amasi-based ice-cream



Thobile Nkabinde, Anissa Davel, Lise-Mari Goosen, Martine Beukes, Asanda Ziwane, Kayla Meiring, Isabella Melck, Nelmari de Wet, Hamlin Basson



5. OFF THE HOOK fish spread: Chilli flavoured Catfish spread



Lauren Daniels, Delenca Cronjé, Charys Barnes, Nicolette van Heerden, Monique Adams, Shannon van der Watt, Carli Look, Jenny Rabie



6. Alfa-Snaps: Bobotie flavoured sorghum and alfalfa-based baked snack



Keanu Liltved, Emma Dickerson, Nadia Nell, Leila Blom, Kalinka van der Linde, Emma Pietersen, Nicolene Olivier, Michael Esterhuysen



7. SorghiSip: Chocolate flavoured fermented sorghum beverage



## Stellenbosch alumni spreading their wings with huge success.

Ashleigh Forster and Murray Elphick both graduated with a BSc in Food Science in December 2017, but this was not the end of their studies. These two Stellies went to Europe to further their studies, with a full scholarship to do their Masters at the Food Innovation Program in Italy.

The Food Innovation Program is a 12-month, full time Master's Program that offers aspiring food innovators and entrepreneurs an invaluable experience in enhancing their professional goals and personal growth.

The Program is structured in three distinct phases with a final thesis project and an internship.

The first phases is the INSPIRATION Track in Reggio Emilia, Italy that offers an intense and comprehensive academic experience combining classical and innovative educational methodologies, such as foresight training and design thinking.

Once complete, students go through the ASPIRATION Track to expand their entrepreneurial horizons and engage in the cross-pollination of ideas, cultures and culinary traditions through a global tour of Silicon Valley, California, Shanghai and other Asian and European cities.

Finally, the PERSPIRATION track includes laboratory training and prototyping in the Officucina, the unique kitchen maker-space, designed specifically for the Food Innovation Program.

We caught up with these two a week ago to see if they were still holding up. Not much to our surprise, they are not only holding up, but are having a wonderful time, touring the world and even winning prizes.

Murray and Ashleigh took part in a "Beer Hackathon" in March where they needed to rethink and redesign the concept of "slow food". They were in the same team and they won 2500 Euro for their concept. The concept they proposed creating a "breakfast on the go" where food trucks would be placed at busy transit stops (train or bus stations) who would use spent grain from beer in porridges or breads for breakfast.

They are currently busy with the last phase of their Masters study, which involves a four-month internship at a food company in Italy.

Murray is working with Barilla and Tetrapak on a project which is developing a more sustainable approach to their products, while Ashleigh is working with CAMST, an Italian company who provide school and workplace lunches in canteen formats. She will be rethinking and designing "the workplace lunch."

It is good to know that Stellenbosch trained Food Scientist are doing well globally. (Ashley & Murray)





## Food Science PRIZE-GIVING EVENT 11 OCTOBER 2018

1. **KITTY SIMMONS PRIZE:** Cara Ehlers (3rd year student for FS 244, Food Processing and Preservation)  
Average percentage of: 88%
2. **BESSIE RETIEF PRIZE:** Anissa Davel (4th year student for FS 354, Sensory Science)  
Average percentage of: 86%
3. **MIMSIE SMIT PRIZE:** Lara Moller (4th year student for FS 344, Cereal Science)  
Average percentage of: 80%
4. **NONNA RABIE PRIZE:** Anja Laubscher (2nd year student for highest average in 1st year)  
Average percentage of: 81.06%
5. **DEPARTMENT OF FOOD SCIENCE (3rd year) PRIZE:** Natasha Simpungwe & Mary-Anne Bigalke  
(General interest and participation in FS)
6. **DEPARTMENT OF FOOD SCIENCE (2nd year) PRIZE:** Jana Becker (General interest and participation in FS)
7. **DEPARTMENT OF FOOD SCIENCE (1st year) PRIZE:** Petra Lategan (General interest and participation in FS)
8. **JEANNE MARIE VAN DER POEL PRIZE:** Lieschke de Waal (General interest and participation in FS)
9. **MATTIE JOOSTE (UNDERGRADUATE) PRIZE:** Emma van der Merwe  
Average percentage of: 83.89%
10. **SASKO PRIZE:** Anika van der Mescht (Highest average for 1st and 2nd year FS)



## FOODMICRO 2018

(Dr D Rip)

Prof Pieter Gouws and Dr Diane Rip, along with about 500 scientists from all over the world, attended the 26th International Committee on Food Microbiology and Hygiene (ICFMH) Conference, FoodMicro 2018. The conference was held at the Freie Universität in Berlin, (Germany) from the 3rd to 6th September 2018.

An interesting scientific programme entitled “Biodiversity of food borne microbes” offered great lectures, keynotes, oral presentations and posters. Both Prof Gouws and Dr Rip’s students had posters presented at the event.

Dr Rip: “Attending this Conference is always exciting as it allows leading experts in the field of Food Microbiology from around the world to come together and share their research and expertise on food safety related topics. It is a platform for great learning, sharing and networking”.

<https://icfmh.org/en>



A few of the delegates from around the world who attended ICFMH FoodMicro 2018 in Berlin.

Front row: Ms Elisma Ackerman, Prof Pieter Gouws and Dr Diane Rip

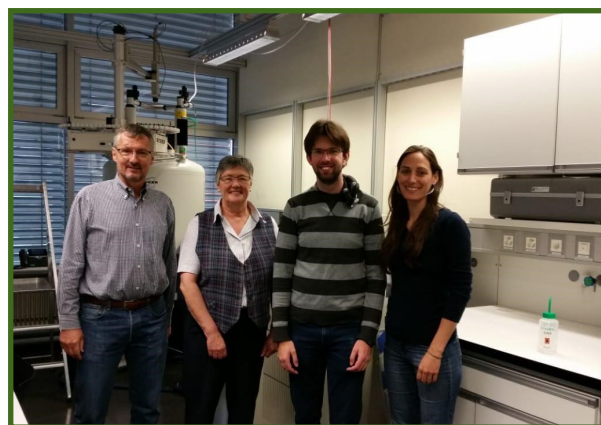
## Switzerland international visit

(N Walters)

Postgraduate studies can lead to many new and exciting experiences. For me it was a three-month internship to Basel, Switzerland, which was made possible thanks to the Agricultural Research Council (ARC). The internship was based at the Pharmazentrum department of the University of Basel. The primary purpose of the internship was to separate and identify the minor phenolic compounds of an endangered honeybush species (*Cyclopia pubescens*). Secondary objectives included gaining hands-on training in Nuclear Magnetic Resonance (NMR) instrument operation and data interpretation. This internship was very successful for a total of eight compounds were identified with NMR, which we were not able to identify with the local resources available.

The visit also allowed me to experience different cultural viewpoints and to make many new friends. However, saying goodbye to this group of friends after the three months was not an easy task, but hopefully I will meet up with them in the near future.

P.S. I really missed braaivleis and a braaibroodjie during my stay.



Prof Lizette Joubert and Nico Walters in Basel

## Rochelle Keet on the academic RED carpet

Rochelle Keet was awarded the Rector’s Award for Excellent Achievement in the category of Academics on 11 October 2018. A student cannot nominate him/herself for this prestigious award, which makes it a huge honor in the world of academic achievement at Stellenbosch University.

Not surprisingly then, Rochelle is one of the top students in the AgriScience Faculty, with a current academic average of 82%. She is no stranger to academic awards and bursaries, having received numerous awards during the course of her studies at SU, some of the most memorable being: *Peter van Twisk Academic Achievement award* for most deserving student, *Mattie Jooste prize* for the student with the highest overall marks during the course of his/her first three years of study at Food Science, *SASKO prize* for the student with the best overall marks during the first two years of study, and *Aubrey Parsons study grant* for maintaining a minimum average of 70%. Her other achievements include numerous academic bursaries for maintaining a minimum average of 75% during the course of her studies.

Rochelle is currently studying towards her MSc degree in Food Science, with the focus of her study being the well known food pathogen *Listeria monocytogenes*. With such an impressive list of academic achievements, it should be self-evident that Rochelle is a highly motivated and skilled individual, and her inspiring work ethic serves as an excellent template for achieving success.





## Drinking tea with the Japanese

Neil Miller and Nico Walters (both 2<sup>nd</sup> year PhD) travelled to Japan to take part in the annual joint meeting between the ARC (Post-Harvest and Agro-Processing Technologies division) and Tokyo University of Agriculture and Technology (TUAT). They accompanied their academic supervisors, Dr Christiaan Malherbe and Prof Lizette Joubert, who maintain a long-standing collaboration with TUAT, focusing on the health-promoting potential of rooibos and honeybush tea. Following a seminar presentation on the first day, the group experienced various sights and activities related to the Japanese tea processing industry, including picturesque green tea plantations, authentic local dining and tea-tasting sessions, and the sophisticated inner workings of the Ito-En tea factory, located in the Shizuoka prefecture. (Neil Miller)



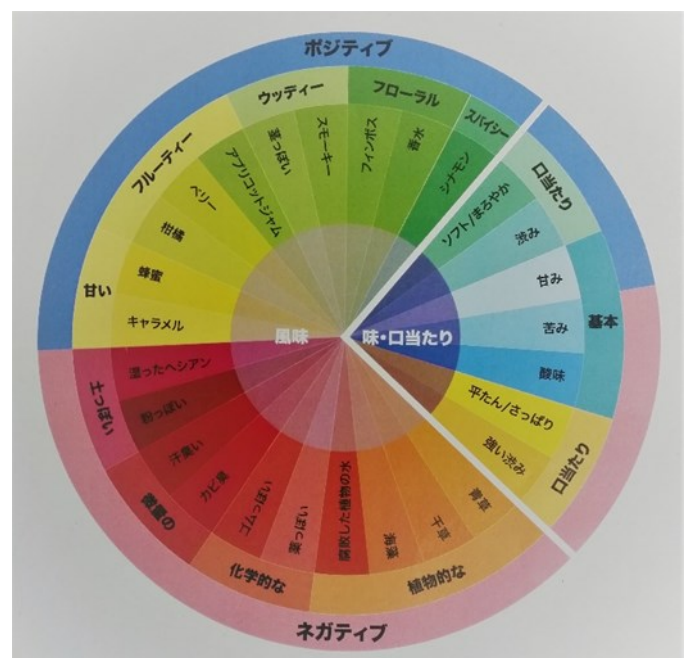
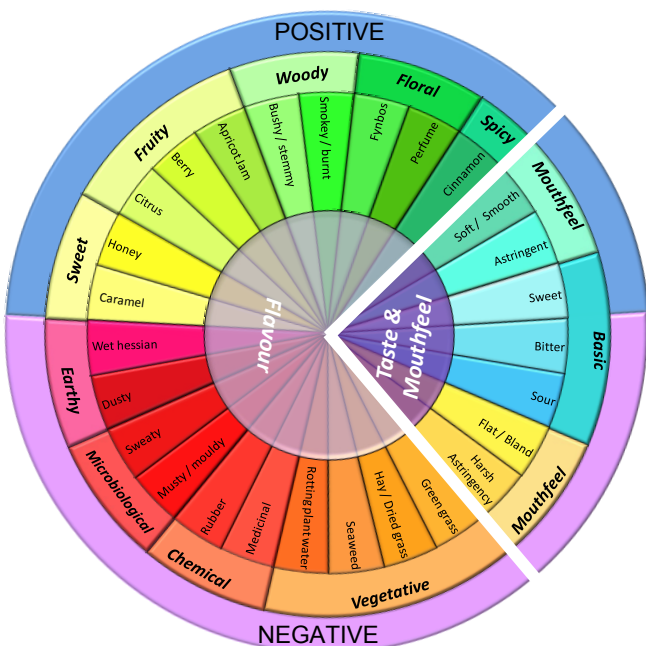
## Nico and Neil tasting tea in Tokyo

## A Japanese spin on the rooibos flavour wheel (M Muller)

The first version of the rooibos flavour wheel, developed and released by ARC Infruitec-Nietvoorbij and Stellenbosch University in 2010, has been translated into Japanese. This Japanese translation confirms the need by international marketers for such a tool to bridge the communication gap.

Prof Lizette Joubert was presented with a copy of the Japanese version of the rooibos flavour wheel during a visit of rooibos marketing representatives to ARC Infruitec-Nietvoorbij. The company ITO EN, the major rooibos processor and distributor in Japan, uses the wheel in quality control of rooibos tea.

The ARC and Stellenbosch University actively collaborate on Rooibos tea research.



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## Eben Brooks recognised for 25 year service at SU

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For the past 25 years Eben Brooks has been synonymous with the Food Science department at Stellenbosch University. He started working here at the age of 25 and has since become a bit of a legend.

He has seen many students and staff members come and go and if you want to know where to find something or how to operate some equipment, he's the man to ask. A super-hero in his own right ... those who know him as 'The Skim' might agree that Eben has a magical ability to disappear. It is not a mere coincidence that Eben is working at Food Science. This man is a chef *par excellence*, but I'm afraid to say that a family secret recipe will NOT be shared. Maybe one day Eben will write a book to share these secret gems with the rest of us.

In the meantime he will keep us all guessing while laughing all the way.

Eben, congratulations and thank you for 25 years of service.



Photo: Maricel Krügel, Maryke and Eben Brooks, Jeannine Marais and Pieter Gouws at Eben's awards ceremony at STIAS.

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## IPSA Goldpack awards 2018

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The IPSA Goldpack student's awards ceremony was held on 5 November at the Oude Werf hotel in Stellenbosch.

The 3 winning groups were: Gold—EasyBeans; Silver—Amaasing; Bronze—SorghoSip

Congratulations to the winning groups.

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## Judi Psarrakis went BIG in Japan

(Judi Psarrakis)

I had the opportunity to attend the 3rd International Aquaphotomics symposium held in Awaji Japan, from 2-6 December. It was an amazing experience where I met all the important role-players in my field and also from other fields, doing research on water.

As part of the symposium we went on a study tour. On the study tour we visited Yunosato Spa and enjoyed a traditional Japanese dinner. We also visited mount Koya, where we visited some temples in the area and had a vegetarian lunch with the monks at one of the temples.

I can't wait to meet up with everyone again at the next aquaphotomics symposium.  
(Judi received a travel grant from the symposium to attend.)



Judi exploring Japanese culture





Prof Gunnar Sigge accepting the award on behalf of Prof Piet Steyn in Mumbai, India.  
Back home, Profs Arnold Schoonwinkel and Gunnar Sigge presenting the award to Prof Piet Steyn

## Prof Piet Steyn honoured at IUFoST 2018

(GO Sigge)

On the 25th October 2018, at the International Union of Food Science and Technology (IUFoST) World Food Science Congress in Mumbai, India - Prof Piet Steyn was honoured with an induction into the International Academy of Food Science and Technology (IAFoST) as a Fellow of the Academy.

Prof Steyn, who was the Senior Director: Research at Stellenbosch University until 2008, was honoured for his contributions to mycotoxin chemistry and analysis. Prof Steyn was recognized as the world leader in the chemistry of mycotoxins, toxins produced by the metabolism of fungi on cereal grains, oil seeds, tree nuts, and fruits.

IUFoST Fellows are distinguished by their scientific and professional contributions to food science and technology. They promote high standards of ethics and scientific endeavours among food scientists and technologists and serve as a source of scientific personnel and information to support international activities related to food science and technology through IUFoST.

Prof Steyn was unable to attend the IUFoST Congress in Mumbai, but Prof Gunnar Sigge accepted the award on his behalf. The certificate and pin was formally presented to Prof Steyn at a function on the 12 December 2018 at the Department of Food Science.

Thank you to Woody's Brands and Chill Beverages for your generous sponsorship for the annual AgiSciences golf day that was held on 15 November 2018 at De Zalze golf estate, outside Stellenbosch





## US spog met eerste aanlyn-loopbaanportaal vir landbou in SA

(J Bonthuys)

Die Fakulteit AgriWetenskappe het pas die eerste loopbaanportaal bekend gestel wat alleenlik op die landbou-en voedselsektore fokus.

Dié interaktiewe portaal is die eerste in sy soort in Suid-Afrika en is die geesteskind van prof Danie Brink, Dekaan van die Fakulteit.

Die webportaal sal na verwagting help met studente se loopbaanontwikkeling deur nuwe geleenthede te ontsluit, het Brink onlangs by die bekendstelling gesê. Finalejaar en nagraadse studente asook rolspelers uit die bedryf het dié geleentheid op kampus bygewoon.

Brink het gesê: "Ons glo hierdie webportaal sal help om nuwe geleenthede vir ons studente te ontsluit en ook tot voordeel wees van die landbousektor. Ons wil sien dat ons gegradueerdes die mark suksesvol betree."

Die Fakulteit het die finansiering vir die ontwikkeling van die portaal verskaf. Die diens sal later na ander tersiêre opleidinginstellings in Suid-Afrika, en ook moontlik na internasionale en privaat universiteite uitgebrei word.

Brink meen die privaatsektor is gereed om in hierdie inisiatief te belê, aangesien hulle uitdagings ondervind om behoorlik gekwalifiseerde gegradueerdes met toepaslike vaardighede te werf.

Brink sê verder: "Die landbousektor se behoeftes, asook die onderligbehoeftes van studente, het die afgelope dekades wesenlik verander. Minder as 20% van die Fakulteit se studente is deesdae afkomstig uit 'n landbou-agtergrond. Ons glo daarom dat hierdie portaal sal help om brûe te bou tussen ons studente en rolspelers in die sektor."

Rico Basson, besturende direkteur van Vinpro, het bygevoeg: "Die landbousektor en verwante bedrywe is kompleks. Ons benodig 'n nuwe geslag multidissiplinêre kundiges wat passievol oor landbou is."

Die portaal bied 'n nuttige instrument waarmee die landbousektor nader kan beweeg aan studente. Só het Monika Basson, die Fakulteit se koördineerder van voorgraadse werwing en bemaking, verduidelik. Sy het gevolg: "Studente sal as werksoekers daarop kan registreer en maatskappye word op hulle beurt toegang gebied tot kandidate deur poste, internskappe en beursgeleenthede daarop te adverteer.

Die portaal verskaf ook onder meer inligting oor loopbaangeleenthede en kursusse, asook riglyne vir werksgereedheid."

Marianne van der Laarse, besturende direkteur van Agrijob, meen die loopbaanportaal voldoen aan 'n groot bedryfsbehoefte.

Sy het dit so gestel: "Die huidige tendens dat jongmense huiwerig is om in landbouwetenskappe te studeer, is wyd bekend en die bedryf is met reg bekommerd daaroor. Maatskappye en organisasies in die landboubedryf bevestig gereeld dat hulle 'n tekort ervaar aan gegradueerdes in landbouwetenskappe met toepaslike vaardighede.

"Uit 'n werwingsperspektief word hierdie persepsie van die bedryf egter weerspreek deur die taamlik groot aantal landbougegradueerdes wat suksel om werk of internskappe te vind. Ons is derhalwe baie opgewonde oor hierdie interaktiewe, omvattende platform wat landbou-verwante werksgeleenthede gaan help ontsluit. Die privaatsektor, bedryfsorganisasies en regeringsinstellings is strategiese vennote om die sukses van die projek te help verseker."

Van der Laarse meen die platform stel studente ook in staat om self pro-aktief op te tree wat hulle eie loopbaanontwikkeling betref.

Besoek [www.agrijob.co.za](http://www.agrijob.co.za) vir meer inligting. Kontak Marianne van der Laarse per e-pos by [marianne@agrijob.co.za](mailto:marianne@agrijob.co.za) of skakel 082 3881000.



Hier op die foto verskyn (vlnr) prof Danie Brink (dekaan), Willem Bouwer (finalejaar-student), Marianne van der Laarse, Besturende Direkteur: Agrijob en Rico Basson, Uitvoerende Direkteur: Vinpro

## Student wellness

If you are struggling to cope with the pressures of your studies or on a personal level, and feeling stressed or overwhelmed, please consult with the Food science wellness champion, Mrs Megan Arendse (Room 2017, [marendse@sun.ac.za](mailto:marendse@sun.ac.za)).

She will assist you in getting the necessary help & guidance.

Support for feelings of depression, trauma and/or loss can also be provided.





*Congratulations...*



Richard Edwards and Kiah Payne got engaged in October while both Tanino Febbraio and Alexia Maritz tied the knot in the same month. Congratulations and many happy years!



**Summer School at Wageningen, Netherlands**  
**Martine Beukes (Final year student in 2018)**

Exactly one year ago I started looking online for summer schools overseas, and stumbled across the Global Food Summer School at Wageningen University-- one of the best food science universities in the world. From factory visits to Mars Chocolate and Heineken, to meeting people from across the globe (from Columbia to India to Greece to Italy), to having the most interesting lectures and group challenges, this week ended up being one of the highlights of my university experience.

Wageningen is only a short 1 hour train trip from Amsterdam (beware the bikes!). Quite by coincidence, Ineke and Marco who are also from Stellenbosch attended the summer school with me. We were hosted by a researcher from the university who lived only a few hundred meters from the city center—where we had vlierbloesom ice cream (local flower) most evenings after our friet and kroket dinner, and which also had a town festival the Sunday before the lectures started. The university was a short bus ride away from the center (we were definitely not experienced enough to take on the Dutch cycling paths and rules, and plus, the bus was more than adventurous enough).

This one week course was jam-packed and had, without a doubt, the most stimulating lectures I have ever attended. We covered molecular gastronomy, 3D food printing, a history of food, a sustainability workshop from Unilever and Halaal. These lectures were so different to anything I had ever learnt about and were presented by lecturers from across the globe. I was especially intrigued by the Halaal lecture (which is becoming an increasingly important factor in food in Europe) and 'a history of food', which we discovered is actually 'a history of the world'. The visit to Mars, the largest chocolate factory in the world, and Heineken was also stimulating and it kind of blew my mind to see how big the factories are. This July being the hottest summer in Europe, there was nothing better than enjoying an ice cold Dutch beer after the factory visit.

We even touched on product development. Each of us had to bring something from our countries and then take the product further. My group had to choose from pasta sauce from Italy, hot cross buns from Wales, soup from Turkey, seed bars from Greece and Rooibos tea from South Africa. On the Friday when everything came to a close, we pitched our new product-- bite size buns filled with Nutella, strawberry jam or mascarpone-- to the class. Afterwards we attended an extremely fun practical where we had to build a windmill which could charge a battery, using only our trash, something I have never tried to do before (yes, ours failed spectacularly). It was a sad moment when we all had to go our separate ways, but I know that if I ever were to go to Mumbai, London, Athens or Milan, I will have a fellow food scientist friend who shared a very memorable week with me!





## Graduation December 2018



### Congratulations & WELL DONE!

On 13 December 2018 a whopping 54 BSc Food Sciences degrees were awarded, of which 8 *Cum Laude*. (Caitlin Burgess, Anissa Davil, Nicole Jenneker, Lara Moller, Alicia Petrus, Emma Pietersen, Emma van der Merwe, Nicolette van Heerden all received their degrees with distinction).

The following candidates received their MSc degrees, Trust Pfukwa, Shannon Howell (*Cum Laude*) and Terri-Lee Kammies (*Cum Laude*).

### Two PhD's were also awarded to the following candidates

**Lara Alexander** (Food Science)

Supervisor: Prof E Joubert

Co-supervisors: Prof D de Beer and Ms M Muller

*The contribution of phenolics to the bitter taste of Honeybush (Cyclopia genistoides) herbal tea*

**Sune Henning St Claire** (Food Science)

Supervisor: Prof M Manley

Co-supervisor: Dr M Krügel

*Investigation of the prevalence and characteristics of infection by Kudoa thyrsites and K. Paniformis in South African marine species*

(Photo's provided by students)





*And.....That's a wrap for 2018! Enjoy your holiday and be safe.*

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