

The background of the entire page is a top-down photograph of several pink ice cream bars on wooden sticks, scattered with fresh raspberries on a white marble surface. The ice cream has a slightly textured, hand-dipped appearance. The raspberries are vibrant red and some are whole, while others are slightly crushed. The marble has a subtle grey veining pattern.

Newsletter

Food Science • Voedselwetenskap
December 2021

Dear Colleagues, Alumni, Industry partners & Friends of Food Science

Vanjaar was weereens 'n jaar wat deur Covid-19 geraak is en ons lewens beïnvloed het, maar ons staan aan die einde van die jaar en kan terugkyk op hoogte- en laagtepunte. Covid-19 het in 2021 baie mense se lewens geëis en ons is veral hartseer oor die kollegas, hul familieledes en vriende se verlies. Covid-19 het tragies ook 'n groot gees aan die Universiteit en die Landbou-sektor vroeg van ons ontnem. Ons treur oor Prof Mohammad Karaan, ons voormalige Dekaan en inspirerende stem in Landbou.

There were, however, also many highlights in 2021. The lecture halls in the department were both upgraded to facilitate the dual teaching mode of having students physically in class, while also streaming to people at home. This has made a huge difference to the teaching options we have in these times. You can read about many of the other highlights in this newsletter. These include Dr Paul Williams obtaining his NRF rating and passing his Post-graduate Diploma *cum laude*, First-year Achievement Awards (two students), Rectors Academic Awards (two students), the brewers winning more prizes at this year's Brewing Intervarsity, Nina Muller's Rooibos and Honey Bush Tea workshops and App and the customary success of the NPD day.

Another highlight was the fact that the Department again ranked in the 76-100 position in the Shanghai Rankings of subjects, in the Food Science and Technology category. We are the only department in Africa in the Top 200 of the rankings. This is another credit to the incredible team effort that characterises this department.

Ongelukkig moet ons ook aan die einde van 2021 afskeid neem van Me Veronique Human, wat aanskuif na 'n nuwe geleentheid by Departement Fisiologiese Wetenskappe. Veronique was 'n uiters waardevolle en geliefde kollega en ons gaan haar baie mis, maar, ons is ook seker dat sy 'n groot sukses gaan maak van haar nuwe uitdagings. Ons sal haar loopbaan met trots volg.

A massive note of thanks and appreciation must go to each staff member that went above and beyond the call of duty to ensure that the academic year of 2021 was a success. It has been a challenging year for everyone, but THIS staff once again proved that they are special and dedicated to the collective success of the department.

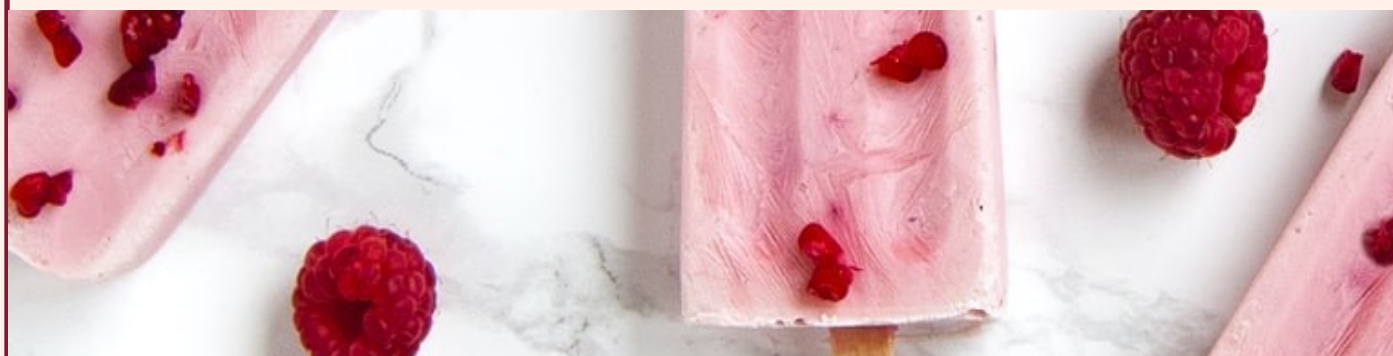
Enjoy our Summer edition newsletter and from the Department of Food Science, we wish you a happy, healthy and restful festive Season.

Prof Gunnar Sigge

Head of Department

Food Science

Stellenbosch University



Food Science's Paul Williams started 2021 on a high note

Dr Paul Williams (picture), a senior lecturer in the Department of Food Science, has of late, as he puts it, "been hitting the books again" and bagged a PGDip in Data Science in 2020, a new programme presented by the Department of Industrial Engineering. Prior to that he obtained a PGDip in Industrial Engineering with a focus on Data Science *cum laude*.

He admits that it took some very hard work, much commitment, and quite a number of sacrifices to juggle both full-time lecturing and studying. The secret to his success, he says, is based on the fact that he really enjoys his work and field of research, and also maintains a balanced lifestyle, exercising, and spending quality time with friends and family.

Williams obtained his PhD in Food Science in 2013. There after he did an industrial postdoctoral project at the Southern African Grain Laboratory in Pretoria. He was appointed as a lecturer in the Department of Food Science on 1 April 2014 and was promoted to senior lecturer in July 2019. Williams teaches Food Chemistry to final year students and his field of research involves of

NIR spectroscopy, and NIR hyperspectral imaging with chemometrics and data analytics.

In 2020 Williams was among 13 distinguished young professionals recognised by SPIE, the International Society for Optics and Photonics, as one of its 2020 DCS Rising Researchers. Due to the Covid-19 lockdown regulations he was not able to attend the awards ceremony in the USA. He recently obtained a NRF ranking of C2.

FROM: April 2021, AgriSciences Newsletter



Gunnar Sigge to serve as a director of the IFT in the USA and SAAFoST Vice President

Prof Gunnar Sigge (picture), Chair of the Department of Food Science, was recently elected to serve on the Board of Directors of the Institute of Food Technologists (IFT) in the USA. The IFT is the USA's Food Science Association for Food Professionals, with 15 000 members from more than 90 countries, including South Africa.

Since 1939, the Institute of Food Technologists (IFT) has been a scientific forum for passionate science of food professionals and technologists to collaborate, learn and contribute, all with the goal of inspiring and transforming collective scientific knowledge into innovative solutions for the benefit of all people around the world. As a scientific community grounded in purpose, the IFT feeds the minds that feed the world.

The IFT represents all facets of the food profession – from academia, to policy, to industry, to marketing and sales. It offers its members a wide variety of programmes, events, resources, networking opportunities and services via national events, or through its 48 regional sections, or 24 topical divisions. The IFT is a global organisation and has strategic partnerships with other organisations that have a vision of a world with a safe, sustainable, and nutritious food supply for all. To this end, it also has a collaborative partnership with the SAAFoST (SA Association for Food Science and Technology), with which Prof Sigge has been involved since 1997 and recently elected as SAAFoST Vice President for the year 2021 to 2023. He is passionate about SAAFoST's ongoing support of food science and technology students through the SAAFoST Foundation, the advancement of food science and technology as a career and the association's magazine, South African Food Science and Technology (FST).

Sigge, an IFT member since 2008, was invited to attend two IFT Strategic Retreats in 2012 and 2013. Since 2015 he has served on the IFT's Annual Meeting Scientific Programme Advisory Panel (AMSPAP)

and chaired the panel for the 2016 and 2019 Annual Meetings. He currently also serves on the IFT's International Division Leadership Group and is the designated Chairperson.

The IFT's Board of Directors comprises of the Office of the President (President, Immediate Past President, President-Elect, Treasurer, and the CEO) and 12 Board Members – the Board term of office is three years. The IFT has its headquarters in Chicago, the windy city, and the board usually meets three times annually – the July meeting coinciding with the Annual Meeting and Expo, which usually attracts more than some 24 000 delegates.

- The Dean of the Faculty, Prof Danie Brink, congratulated Sigge on being elected to the board of the IFT and wished him well with the role and responsibilities it entails.

FROM: April 2021, AgriSciences Newsletter



New quality grading technology for the honeybush industry

A state-of-the-art electronic grading tool has recently been rolled out to the major processors and other role players within the Honeybush tea industry by the Department of Food Science, Stellenbosch University and the Agricultural Research Council (ARC) via tailor-made workshops.

A bespoke Honeybush quality grading app has been developed to electronically grade the overall sensory quality of fermented honeybush tea using an *e-scorecard*. The captured grading information can be exported to two output-files, a completed *e-scorecard* in *pdf*-format and a spreadsheet (*xlsx*-format) with the relevant grading data and awarded grades. The app can be used on a laptop or desktop computer within the industry quality control environment, but also the formal academic research environment.

This tool is a spin-off of a research project spearheaded by Prof Lizette Joubert, principal researcher at the ARC Infruitec-Nietvoorbij and also extraordinary professor at SU. The development and roll-out of the Honeybush quality grading app was a joint effort by a large group of researchers at SU and the ARC, Prof Lizette Joubert and Prof Dalene de Beer of the ARC; Dr Erika Moelich, Dr Brigitte du Preez and Ms Nina Muller of the Sensory Science Research Group at the Department of Food Science, SU; and lastly Mr Heinrich Kreuser and Mr Justin DeWitt of the Department of Mathematical Sciences, SU.

Author: M Muller



Prof Lizette Joubert, ARC Infruitec-Nietvoorbij (fourth from right) with workshop participants: Johan and Rina Kritzing (Honeybush Natural Products), Quinton and Eunice Nortje (Melmont Honeybush Tea), Toangashe Majoni (Coetzee & Coetzee), Liezel Slabbert (Rooibos Limited) and Van Zyl en Mona Joubert (Agulhas Honeybush Tea). Photo credit: SCPS



Justin DeWitt (left) and Heinrich Kreuser (right) wrote the code for the app.

Picture: The newly launched Honeybush tea app.

Teatime at Food Science ...ensuring that you will make the perfect cup of tea



Industry delegates attending the 1st workshop on the grading of honeybush tea: Front: Shannon van der Watt & Monique Gordon (Cape Natural Tea Products) and Jani van Schoor (Khoisan Tea); Back: Debora van der Merwe (Babylonstoren); Zebre Rossouw & Ilze Bruwer (Carmien Tea); Nina Joubert (Agulhas Honeybush Tea) and Carlo Adams (Cape Tea Company).

At these workshops the app was tested and numerous round-table discussions were held.



The behind the scenes team from left to right: Prof Lizette Joubert, Dr Brigitte du Preez, Ms Natasha Achilles, Ms Jana Becker, Mr John Achilles and Mrs Anne Marie Leygonie

Erkenning tydens Vrouemaand aan etlike akademici en alumni verleen

Erkenning is tydens vrouemaand aan 'n aantal uitgelese akademici en alumni aan die AgriWetenskappe fakulteit verleen met 'n bewusmakingsveldtog oor vroue in die Suid-Afrikaanse wetenskap.

Twee van hierdie nominasies vanuit die Voedselwetenskap department, nl prof Lizette Joubert, kenner van rooibos- en heuningbostee en me Nina Muller, Sensoriese deskundige.

Die veldtog is in Augustus op sosiale media platforms soos Facebook en Instagram deur die Vereniging van SA Vroue in wetenskap en Ingenieurswese, ook bekend as SA WISE, gevoer.

Prof Lizette Joubert is 'n alumnus en buitengewone professor van die Departement Voedselwetenskap wat in diens van die Landbounavorsingsraad op Stellenbosch is. Deur die jare het sy 'n magdom kennis tot SA se inheemse rooibos- en heuningbosbedrywe oor aangeleenthede wat verband hou met landbou-verwerking en produkontwikkeling bygedra. Sy is tans een van die projekteiers van die DSI/ARC Heuningbos-projek, en is voorheen deur die SA Akademie vir Wetenskap en Kuns vir haar werk vereer.

Prof Joubert werk ook nou saam met Me Nina Muller aan 'n aantal projekte. Nina Muller, wat navorsing doen in die gebied van sensoriese wetenskap, en ook betrokke is by rooibos- en heuningbos-verwante navorsing, is ook vereer. Sy het 'n belangrike aandeel gehad aan die vestiging van 'n voortrefflike sensoriese wetenskapfasiliteit vir kruietee en ander sensoriese navorsing in die Departement Voedselwetenskap.

VANAF: Oktober 2021, AgriWetenskappe Nuusbrief

WOMXN'S MONTH

"Rooibos and honeybush researchers Prof Lizette Joubert and Dr Cecilia Bester of the Agricultural Research Council"

"Prof Joubert and Dr Bester are leading the team that are working on a project which aims to strengthen the industry and its people, and to ensure that the indigenous teas being produced in South Africa are ultimately of such a high standard that it can compete on the tea markets of the world. This includes developing seed orchards, nurseries and honeybush tea plantations in rural communities"

Nominated by Engela Duvenage



Lizette Joubert
Principal Researcher at ARC Infruitec-Nietvoorbij and extraordinary professor at Stellenbosch University.



Cecilia Bester
Geneticist and plant breeder, overseeing research at ARC




WOMXN'S MONTH


Magdalena (Nina) Muller is a research fellow at Stellenbosch University's Department of Food Science. Her research currently focusses on the sensory profiling of honeybush tea, thereby aiming to develop quick and effective sensory quality control tools for application in industry.

As a researcher in the field of sensory science, she has collaborated with the Agricultural Research Council (ARC) on herbal tea research since 2010. She has been instrumental in establishing a cutting-edge sensory science facility for herbal tea research at the Department. This 10-year research liaison with the ARC has resulted in more than 20 research papers in the field of sensory science, as well as an illustrated guide aiming to improve sensory quality control within the honeybush industry. This guide will be published at the end of 2020. Muller is a member of the South African Association for Food Science and Technology (SAAFoST) and the South African Association of Flavour and Fragrance Industry (SAAFFI).

Nominated by Engela Duvenage (@engelbriewe)



Nina Muller
Research Fellow
Food Sensory Expert



Food Science again ranked in top 100 as subject highlight

Shanghai Consultancy has published its 2021 Academic Ranking of World Universities. Although SA universities largely fall outside the top hundred global universities for most subjects, there are a few exceptions. These include Stellenbosch's Food Science & Technology curriculum (76-100), Pretoria University's Veterinary Sciences division (51-75), and the University of KZN's performance in Public Health (76-100).

A visit to Upington

Jana Becker

For most of the last year and a bit, travel was highly restricted for all of us. However, my supervisors, Dr E.I. Moelich and Dr J. Marais, and I had the fantastic opportunity to travel to Upington.

The purpose of the visit was to present the project at the annual marketing forum day to Raisins SA, the company the research will be conducted for, and several other role players in the industry. These role players included both raisin producers and packers. Aside from the presentations, we also had meetings with two of the significant raisin packers, Carpe Diem and Safari Dried Fruits. These meetings allowed us to better understand the positioning of South Africa as a raisin producing region. The needs that the industry has and how the current research can benefit the industry, was also discussed.

After the presentation, we were fortunate enough to attend a raisin evaluation as organised by Provar. Although none of us has much background in tasting raisins, the experience added to understanding the product I will be working with. Initially, we were a bit lost, especially with several experts of the industry attending. Still, we got the hang of it as we went along. Luckily, our results did not stray too far from the averages.

Although our visit to Upington was short, we experienced the warm atmosphere of the community. We formed strong connections with Raisins SA and other role players. The visit also made us realise that, even in an increasingly digitalised world, the best form of communication is still in person.



Photo: From left to right: Ferdie Botha (general manager, Raisins SA), Mariza van Wyk (quality manager, Carpe Diem and Food Science Alumni), Jana Becker (MSc Food Science student), Dr Erika Moelich (project researcher, Stellenbosch University), Dr Jeannine Marais (lecturer, Stellenbosch University), Bekkie van Aarde (information and communication manager, Raisins SA).



SU Brewing team consistently brews greatness.

The Stellenbosch University (SU) brewing team yet again brought their A-game to the fourteenth consecutive InterVarsity Brewing and Tasting competition, which is sponsored by South African Breweries (SAB), part of the ABInBev family. The event was once more hosted in Bloemfontein, by the Central University of Technology (CUT), through CAFSaB, in association with the University of the Free State. Further sponsorship was also made possible by the Beer Association of South Africa, representing the greater beer brewing community, along with FoodBev SETA. Being the only event of its kind, globally, the event has shown to be ever growing with the possibility of more entrants for 2022.

The event took on a hybrid nature this year, being both online and in person to accommodate Covid-19 regulations and to allow all team members and interested parties to attend virtually. The event took place over two days, 22-24 October, and was chaired by Linda Jackson from Foodrisk-forum.

Four members (Jana van Rooyen, Marbi Schwartz, Dewald Botha and Sebastian Orth; photo 1) travelled to Bloemfontein to represent SU. The remaining members of the team attending virtually were Dr Stefan Hayward, Dr Timo Tait, Anishka Eksteen, Nadia Degenaar and Kyle Corbett. (Photo 2). With eleven South African Universities participating in the competition and a total of 50 different beers being submitted, the competitive nature of the event was truly felt by all attendees.

This year the team set out to increase the number of brewing members to enhance the brewing capacity. This resulted in a rigorous brewing and tasting schedule to ensure that optimal brewing quality was maintained. The original all male, four-member team has now increased to nine and has diversified to include four female members (Jana van Rooyen,

Anishka Eksteen, Marbi Schwartz and Nadia Degenaar).

Universities were challenged to brew according to five different categories and to design a label to meet regulatory standards. The beers were sensorially evaluated by a panel of certified judges to the Beer Judge Certification Standards criteria. The categories this year included a Lager, Indian Pale Ale (IPA), Sour beer, African Wild Ale (only ingredients grown in Africa) and a Summer beer (low alcohol beer). This allowed for a lot of brewing, numerous mishaps, and the exciting application of science towards brewing a glass of perfection. The SU team walked away with top honors in the lager category (sponsored by Castle Lager) and won the award for the best label design (Photo 2) (sponsored by FoodBev SETA). The SU team was placed second in the African Wild Ale and third in the IPA category. The cash prize of R20 000, will allow for the team to continue brewing at the Department of Food Science, where the brewery is located. Congratulations to the Stellenbosch brewing team, we look forward to seeing your future endeavors in brewing. (Article and photos provided by the Brewing team)



Photo 1: Sebastian, Jana, Marbi & Dewald at the 2021 Brewing & Tasting InterVarsity

Photo 2: The Brewing team

Photo 3: The winning label

SUCH fun to be back in the labs

With all Covid-19 protocols in place, students could return to the labs during the past semester. Being able to do practical work or at least see a few demonstrations was very valuable to them.

The teachable moment was indeed valuable, the interaction with fellow students...priceless.



Food Science 344 students with Prof Marena Manley applying their Scientific knowledge.



Time to say goodbye ...

M Arendse

It is with great sadness that we bid farewell to our beloved colleague, Ms Veronique Human. Ms Human is leaving the Department of Food Science at the end of 2021 after 11 years of service. Fortunately, she will remain a part of the Stellenbosch University family as she joins the Department of Physiological Sciences in 2022.

She has made valuable contributions towards the department over the years. During her tenure as a Technical officer, she has been involved in the teaching of several modules, most notably FS488 (Food Chemistry) and FS478 (New Product Development). She has made a lasting impression on all students who have gone through this department, often burning the midnight oil, to help them with chemical tests...always effortlessly and with a smile.

Veronique is always willing to lend a helping hand, to students and staff alike. She will be sorely missed for her bubbly personality and infectious laugh.

Veronique, we wish you success and prosperity on your new venture. Thank you for being a great colleague and good luck with your future endeavors.



Did you miss out on reading the latest edition of the e-Matieland?

[Click here to read your newsletter.](#)

I trust that you will find this latest issue of *e-Matieland* an interesting read. In this edition, we share news on [SU's new approved language policy](#), you can read about the art exhibition which features works by 25 Matie artists, find out how an alumnus made his debut as a children's book author, share in the Matie memories of an alumna and *Suidooster* star, and reflect on *Die Matie* as it turns 80 – amongst other articles.

Ek vertrou dat hierdie nuutste uitgawe van *e-Matieland* vir jou interessante leesstof sal wees. In hierdie uitgawe deel ons [nuus oor die US se nuwe goedgekeurde taalbeleid](#), kan jy lees oor die kunsuitstalling wat werk van 25 Matie-kunstenaars ten toon stel, uitvind hoe 'n alumnus sy debuut gemaak het as kinderboekskrywer, in die Matie-herinneringe van 'n alumna en *Suidooster*-ster deel en 'n refleksie lees oor *Die Matie* wat 80 jaar oud word – om maar 'n paar artikels te noem.

[Klik hier om jou nuusbrieff te lees.](#)

US food scientists' major part in ground-breaking poultry project

Agricultural scientists, Michelle Gouws and Kirsten Wessels (photo left) of the Centre for Food Safety, studied the effect of *bacterio-phages* on *Salmonella* growth on XLD agar.

Researchers of the Centre for Food Safety in the Department of Food Science (SU) are involved in ground-breaking research that could see the poultry industry embrace bacteria-gobbling viruses as a new way of controlling pathogens in chicken processing facilities.

The researchers collaborated with the Dutch development agency Oost NI, Microos and Phage Guard. In the R&D project, a trial was conducted on 10 million chickens, using Microos Food Safety's Phage Guard S against *Salmonella*. Preliminary results show that *Salmonella* loads on chicken carcasses in processing facilities were significantly reduced when a tailor-made spray containing unique bacterio-phages was used to clean carcasses. *Salmonella* is a major cause of concern to the food industry, as it can cause severe diarrhoea and fever if people eat or drink infected food or water. In severe cases it can be fatal. *Salmonella* is increasingly becoming resistant to most anti -microbials and is therefore increasingly difficult to handle. Consequently, researchers are looking at alternatives, such as bacterio-phages, to contain possible outbreaks. Those in the know say bacterio-phages are beneficial types of viruses, which infect and destroy bacteria.

"The word 'bacteriophage' literally means 'bacteria eater'," explains Prof Pieter Gouws, who heads the Centre for Food Safety. Research on the use of bacterio-phages is driven by an increasing realisation that disease-causing micro-organisms are becoming resistant to sanitizers and antibiotics normally used to curb and treat them.

Gouws says that most studies on the possible use of bacteriophages in food safety have so far only been lab based. The South African study is the first to test the science on an industrial scale. The research was conducted in an operating chicken abattoir in South Africa to determine the efficacy of bacterio-phages in destroying *Salmonella* on chicken carcasses.

Carcasses exiting a spin chiller were sprayed with a commercial bacterio-phages cocktail, PhageGuard S, using a novel spray application on for optimum effect. The trial was run over a period of four weeks, during which samples were regularly taken and results recorded.

Gouws said: "The study proved that bacterio-phages were effective against multi- drug-resistant *Salmonella*. When applied correctly, bacterio-phages can greatly improve food safety, with no adverse impact on abattoir workers, consumers or the environment." His team is currently working on research papers on the topic. The poultry sector was the first food sector in South Africa in which the use of bacterio-phages was tested. Gouws continued: "To our knowledge the study is also the first to show the effect that pressure, strainer and nozzle diameter has on phage stability on commercial phages." The spray applicator was designed by the team at the Centre for Food Safety, which includes Gouws and Kirsten Wessels in collaboration with the industry.

The research was recently featured in an article on AMR in the *Poultry Bulletin*, official magazine of the SA Poultry Association. In the article, the general manager of SAPA's Broiler Organisation, Izaak Breitenbach, is quoted as saying that the association supports the move away from anti-microbials.

He said: "Bacterio-phages can greatly enhance food safety in South Africa, especially given our warm climate in which bacteria multiply quickly and easily." To which Gouws added: "There are various advantages in using them. They only kill their target organism, and none other. They are completely natural and occur abundantly in nature."

Gouws says food safety is a difficult topic, and one that has the wellbeing of customers at heart. To guarantee it, is a difficult challenge – one that can only be solved through shared solutions and collaborative effort.

He concluded: "You can only innovate through collaboration. One of the topics of growing concern to the sector is that of microbes becoming resistant to the anti- biotics that are normally used to treat disease-causing infections.

"Increased concerns about anti-microbial resistance or AMR, and sanitizer resistance and its effects on food safety, are leading researchers to explore natural alternative feed additives that will yield the same production and growth results, with a decreased risk of resistant pathogenic organisms that may be detrimental to human health.

"Studies on AMR and the development of new and alternative strategies against harmful bacteria, are among the research themes of the Centre." (Melinda Shaw – Poultry SA)

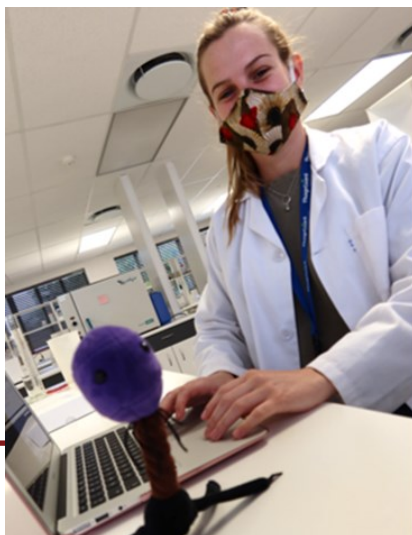


Photo left: Kirsten Wessels and Michelle Gouws in the CFS lab.



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

Pieter Gouws – World Food Day

World Food Day is celebrated annually on 16 October to emphasise the importance of ending hunger globally and ensuring that people have access to food that is safe and healthy. In this article, I would like to focus on food safety and point out that everybody has a role to play in this regard.

Food safety is an essential public health issue for all. The potential threat to public health from foodborne disease continues to increase with expanding urbanisation and the global distribution of food. The consequences of a failed food safety policy are costly, with impacts not only on public health but also on food producers and the economy. Assessing the safety of our food has resulted in a paradigm shift to risk-based methods of analysis. Assessment and management of these risks must be scientifically evaluated, requiring input from a range of experts. Science-based food controls are essential for the protection of food products.

Everyone in South Africa has the right to safe, nutritious, and sufficient food. During the COVID-19 lockdown in 2020, many people fell ill after eating unsafe or contaminated food. When food is not safe, children cannot learn, adults cannot work and the economy suffers. Safe food is critical to promoting health and ending hunger, two of the 17 goals of the 2030 Agenda for Sustainable Development. Without food safety, there cannot be food security.

The world's food supply chain has become more complex, and any food safety incident like the Listeriosis outbreak in South Africa a few years ago has a negative impact on trade, the economy and public health. In South Africa, food safety is taken for granted, but it is often not talked about until you get food poisoning. Unsafe food contains harmful bacteria, viruses, parasites, or hazardous chemicals.

We must use this opportunity on World Food Day to highlight the importance of food safety and we need to ensure that the food we eat is indeed safe. This applies to those who prepare, sell, or produce food. Even though we're in the midst of a pandemic, we should not lose focus on the safe food that we eat. Global food production and the supply chain is heavily impacted by the pandemic, and together with climate change all of us need to consider food safety in the future.

Everyone in the food system has a role to play. Governments are critical in guaranteeing that we all can eat safe and nutritious food. Farming practices must ensure a sufficient supply of safe food while at the same time mitigating climate change and minimising future environmental impacts. The food industry must ensure compliance with programmes like HACCP (Hazard Analysis and Critical Control Points), a system that identifies, evaluates and controls hazards which are significant for food safety from primary production to final consumption. Given the complexity of food safety, consumers need access to clear and reliable information about the nutritional and disease risks associated with their food choices.

I cannot stress this enough: food safety is a shared responsibility, and we must work together on global, regional, and local issues. Collaboration is needed at many levels.

One crucial area of collaboration on food safety, is the healthy engagement between academics and policymakers which is essential to the provision of informed, evidence-based and world-class policy-making. Academic research about food safety that's shared with non-specialists in a clear, concise and engaging way can benefit society. It is a key skill, but lobbying for policy change goes beyond that. It is about patience, persistence, and developing long-term relationships, based on trust and respect, with those that have influence in the relevant policy area. This change must come from researchers them-

selves, particularly in the way they communicate their research findings to a policy audience. Civil servants may sometimes lack expert knowledge in their field and therefore academics need to support and involve government advisers right from the outset, especially when food safety and public health are on the agenda.

The Centre for Food Safety (CFS), hosted in the Faculty of AgriSciences, more specifically in the Department of Food Science at Stellenbosch University (SU), is making a valuable contribution in this regard. It is a one-of-a-kind applied food science research consortium comprised of SU and the food industry. In collaboration, they provide stakeholders with the opportunity to develop and exchange knowledge, experience, and expertise in the areas of food safety, food defence and food processing.

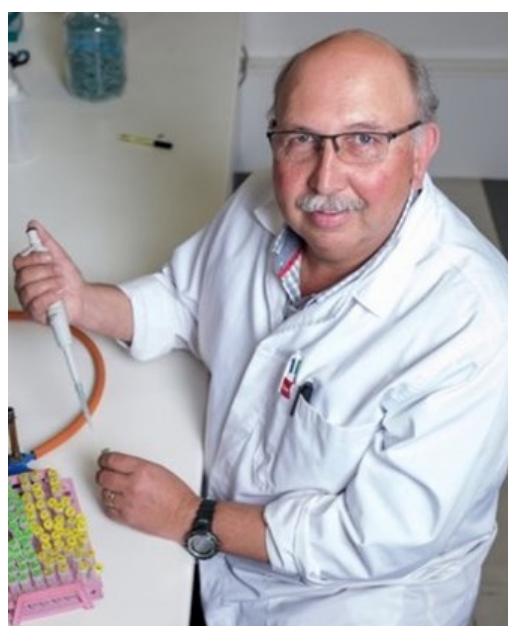
The South African food industry benefits immensely from CFS's collaborative research programme. This is achieved through a multidisciplinary approach, workshops, networking, industry-driven consortiums, seminars and consumer education. The CFS provides high quality internationally relevant research and training in the all aspects of food safety, and supports and encourages research partnerships and alliances with other relevant entities, both nationally and internationally.

The Centre invests in educating and informing the public about food safety as an important means of reducing food-borne illness. Traditionally, food safety educators have used a global approach to teach food safety by teaching a broad range of safe food handling behaviours in the expectation that this will lead to the avoidance of foodborne illnesses.

Food safety education is most effective when messages are targeted toward changing those behaviours that will likely result in foodborne illness. On World Food Day and beyond, we can't afford to let our guard down because if we do the microbes in unsafe food will have the last word.

***Prof Pieter Gouws is the Director of the Centre for Food Safety at Stellenbosch University.**

Article from Cape Times: 13 October 2021



Prof Pieter Gouws, SU Centre for Food Safety

Twée van Voedselwetenskap onder die beste eerstejaars aan US.

Drie studente van die Fakulteit AgriWetenskappe se harde werk op akademiese gebied is erken deurdat hulle aangewys is as van die beste Eerstejaars in 2020 aan die Universiteit van Stellenbosch.

Kelsey Dellar en Lize Theunissen was die Fakulteit se top studente in die hoofstroomprogram. Albei is besig met BSc in Voedselwetenskap. Dellar, wat in Pietermaritzburg grootgeword het, het aan *St John's Diocesan School for Girls* gematrikuleer. Theunissen kom van Caledon, en het haar skoolopleiding aan die Hoër Meisieskool Paarl voltooi.

Die twee is saam met ander topstudente van ander fakulteite vereër tydens 'n virtuele geleentheid wat deur prof Deresh Ramjugernath, Viserektor (Leer- en Onderrig) aangebied is.

By die geleentheid is die belangrike bydrae wat dosente tot die akademiese sukses van studente lewer ook erken. Die topstudente het kans gehad om een lektor te nomineer wat hulle reken 'n wesenlike bydrae tot hul sukses gelever het. Dellar het prof Pieter Gouws van die Departement Voedselwetenskap genomineer, Theunissen vir dr Marietjie Lutz van die Departement Chemie en Polimeerwetenskap.

Die studente is deur prof Maret du Toit, Visedekaan (Leer- en Onderrig) aan die Fakulteit Agriwetenskappe geluk gewens: "Ek weet elke student se reis gedurende 2020 was baie moeilik. Nie net moes hulle daarby aanpas om die eerste keer 'n student te wees nie, maar hulle moes byvoorbeeld ook aanlyn-studies baasraak. Ondanks dié uitdagings het die studente die geleenthede aangegryp en akademies uitgeblink. Dit weerspieël hulle karakter en hoe gemotiveerd hul is om groot hoogtes te bereik."

Baie geluk ook namens die Voedselwetenskap Departement aan die twee uitblinkers en prof Gouws, vir inspirasie en motivering. (Inligting vanuit die Agriwetenskappe Nuubrief: Okt 2021)



Foto links: Lize Theunissen

Foto regs: Kelsey Dellar





Two of our students received rector's awards in 2021

Author: Daniel Bugar

Faculty of AgriSciences student Kim Teresa Mannix's enthusiasm for her chosen field of study is quite infectious and one can see exactly why Stellenbosch University (SU) bestowed a 2021 Rector's Award of Excellent Achievement upon her.

The awards recognise and celebrate the achievements of students in the areas of academics, sport, leadership, social impact, culture and service provision. Mannix, one of 82 recipients of this annual award, received hers for her excellent academic results during a recent online ceremony.

The young student, who completed a BSc (Food Science) degree at SU and is currently studying towards a Master's degree in Food Science, said she is grateful and honoured to be recognised by the University with the Rector's Award.

But it is when she explains why she chose to pursue food science as her chosen field of study that she really lights up.

"I was introduced to food science at a young age by a friend's mom who worked in the food industry. It was fascinating to find out how much work goes on behind the scenes when introducing innovative and safe products into the market. It was also not a common field of work, which is why I found it so interesting."

She said this passion for food science was fuelled at SU and came to fruition at the Faculty of AgriSciences' annual New Product Development Day (NPD), where food science students present their final-year project to various stakeholders in the food industry.

"We were tasked with developing a new food product according to a theme. The project encompassed all the aspects that we studied throughout our degree including chemistry, biochemistry, microbiology, nutrition, legislation and sensory science. Unfortunately, due to the pandemic, we couldn't physically formulate our products. However, I learned a lot that year and my team put in a huge effort. The day we presented our product concept was very exciting as we finally got to show others what we had been working on for so long."

Mannix, who hopes to graduate at the end of 2022, has ambitious future career plans.

"I have recently become very interested in the application of artificial intelligence and how it can assist the food industry. This was the basis for my Master's degree studies. I am hoping that I can move in this direction with my career. I am also hoping to work overseas in the future," she said.

The former Curro Durbanville High School pupil credits the immense support and understanding she received from her school, as well as her parents, for her academic success.

She has the following advice for SU students hoping to make a success of their studies: "Make friends with like-minded individuals in your degree programme. I firmly believe that it would not have been possible for me to do as well as I did without the support of my friends. It's great to have someone equally as passionate about the field you are in to bounce ideas off. Take full advantage of tutorials and lectures; it often helped me cut down on study time when I did this."

Alicia Petrus, also from Food Science was named the best Master's student in the AgriSciences faculty. Alicia graduated in March 2021, *cum laude*. Her study under supervision of Prof Lizette Joubert and co-supervised by Prof Dalene de Beer and Dr Erika Moelich, with the title: 'Use of heat treatment to improve the aroma and flavour of *Cyclopia* products' was done in collaboration with the Agricultural Research Council.

Click [here](#) to read more about the awards and all the recipients.

**A total of 82 top Stellenbosch University (SU) students were recently honoured with Rector's Awards for excellence in academics, leadership, social impact, culture, sport and service provision. During the next few weeks, we will feature some of the winners.*

(Information on this page from the US website as published on 14/10/2021)

Bridge the Gap project

At Stellenbosch University we believe that the GAP between talent and financial difficulty should not be a stumbling block in the road to our student's success. To help students where and when they need it most, SU launched the 'Bridge the GAP' campaign. Anyone can contribute. No contribution is too small and contributions are well managed.

At Food Science we did a proper lab clean-up, removing old and broken apparatus and selling it as scrap metal. With this initiative we were able to both clean our labs and to raise quite a substantial amount to contribute to this worthy cause.

We often find that students are in need of basic sanitary products, toiletries and food. In 2022 we will continue to support this project and to encourage our students and staff to do the same. Follow the Bridge the Gap Programme@bridgethegpsu



Prof Danie Brink and Prof Wikus van Niekerk

Graduation season in the Winelands



This is the season to graduate...

Congratulations to all receiving qualifications during this December Graduation Ceremony.

Whether it is virtual or in-person, this calls for a celebration!

Go to <https://bit.ly/31u2rV7> for the links to the virtual graduation ceremonies.

Basic food basket unaffordable for the poor

People are concerned about the economic impact the renewed restrictions relating to the Covid-19 pandemic will have on what South Africans will be able to put on their tables. If data from this period last year is anything to go by, things are going to get increasingly tough. This is the view of product developer Bianca Botha (picture), who recently graduated with an MSc in Agriculture (Food and Nutrition Security) in the Faculty. Bianca is an alumni of the Food Science department at SU.

As part of her studies on food security issues, she analysed the effects that the pandemic had between March and September 2020 on core food prices and the household core food basket. For this purpose, she used data provided by Justice & Dignity Group.



She found that the price of 2 kilograms of rice had increased by 46%, white bread by 13%, 2.5 kilograms of cake flour by 11%, brown bread by 9% and 2 kilograms of individually frozen (IQF) chicken portions by 5%. White sugar (2.5 kg), maize (2.5 kg), sunflower oil (750 mL) and potatoes increased by an average of 2% when comparing prices from August 2020 to those of February 2020. In August 2020 cake flour, white bread and potatoes saw a year-on-year price increase of 13%, 12% and 11%, respectively. There was an 8% increase in IQF chicken portions (2kg) year-on-year. In September and October 2020, the annual Consumer Price Index (CPI) for food and non-alcoholic beverages saw the biggest annual rise for this category since September 2017 (the post-drought recovery period for SA), according to Statistics South Africa.

The average cost of a nutritious household food basket was R3 783.16 in September 2020, with the cost becoming largely unaffordable each subsequent month. As a comparison, this food basket cost breached the level of the national minimum wage, which in September 2020 was R3 487.68, according to the Pietermaritzburg Economic Justice & Dignity Group.

Botha explains: “The data revealed that the cost of food and nutrition escalated during the months of the 2020 lockdown. It reached beyond the affordability thresholds of the unemployed and for families living on low incomes.” A very large proportion of the South African population is low-income earners who survive on the national minimum wage. Botha says that last year this group relied on grants and food parcels for food and nutrition security. Says Botha: “A person earning the national minimum wage could not afford a core food basket to secure sufficient nutrition for a month, after deducting typical monthly expenses for low incomes earners such as transport, school fees, toiletries, airtime, electricity and burial insurance.” She elaborates: “What the Covid-19 pandemic crisis highlights is what the food sovereignty movement has stood for over the past 10 years: the retail dominated, industrialised food system does not provide food accessibility for a large proportion of our population, nor can a large portion of workers and unemployed afford basic levels of nutrition. Moreover, inadequate, and unstable food supplies and the lack of purchasing power, manifest widespread inequalities and enlarge poverty numbers among most households affected by food insecurity.”

Botha says a key characteristic of food and nutrition security in SA is that the majority of households access food via informal markets, such as street vendors and spaza shops. That is because products are simply more accessible and affordable at such outlets. Botha says the food choices facing households are shaped in powerful ways by their immediate food environment and the broader food system. The Covid-19 pandemic has reinforced the importance of the informal food system as the main access point for food security for most South Africans. Before the pandemic food insecurity was already highly prevalent in South Africa. Thereafter, it has only continued to worsen. Botha continues: “Efforts to achieve the zero hunger, food security target, and nutrition availability target for the sustainable development goals in 2030, albeit with setbacks from the Covid-19 pandemic, will only be reached if measures to save the livelihoods of the poor are sustained during the crisis and beyond.” Data from Statistics SA and UNAID, will have it that food insecurity in South Africa was already high and persistent in pre-Covid times, and had already affected approximately 25% of individuals and 10% of households. Botha says the Pietermaritzburg Economic Justice & Dignity Group’s National Affordability Index Report from August 2019 showed that 25.2% of South Africans lived below the Food Poverty Line (FPL). They survived on less than R561 a month, which isn’t nearly enough to afford sufficient food to ensure the minimum required daily energy intake a person needs.

FROM: August 2021, AgriSciences Newsletter



Night Cap



aviva bites



maizey peach



Cuppa Cubed



Nutri Snacc



Nutribite Bon-bons



2021 NPD products 2021

NPD Day 2021

28 October 2021 was another proud day for the Food Science Department at Stellenbosch University. Our 4th year New Product Development (NPD) students showcased their products with skill, creativity, and scientific knowledge. The event was professionally chaired by Linda Jackson from **foodriskforum** and attended by a huge online audience. All groups and individuals can pat themselves on the back for really bringing their A-game. The theme for 2021 was Geriatric Food; Food for the ageing population, 60+ age group.

Like always the newly developed products had to meet certain criteria such as food safety, shelf life, chemical stability, texture and of course, great taste is a must!

Open this link to watch the 2021 NPD presentations. Please note that it might take a while to download.

https://drive.google.com/drive/folders/1R2_P19tIxa35rWDoE25RVAYdHHv2CGIk?usp=sharing

The competition was tough, but in the end the judges decided to award the prizes to the following groups:

The winning prizes were sponsored by SAAFoST, Synercore, Ina Paarman, Innovus and the US Centre for Food Safety.

For overall best product and presentation and scientific knowledge:

GOLD - NutriSnacc (group 5 received R18 900)

SILVER – Aviva Bites (group 2 received R13 500)

BRONZE – Maizey Peach (group 3 received R9000)

The FACTS prize for the group best complying with the relevant SA food regulation, to the value of R10 000 went to group 2, Aviva Bites

The FOODSAFETYEXCEL prize for the Best HACCP Plan and best communication of integral food science concepts to a broad audience on a virtual platform, went to group 6, Nutribite Bon-Bons. They will be given the opportunity to attend a 4-day workshop to the value of R6950/person.

The Food Science and Technology Student GOLD pack awards went to:

GOLD – NutriSnacc (group 5) R 1 500/ group member sponsored by CPT printers CAPE TOWN

SILVER – Maizey Peach (group 3) R1000/group member sponsored by The Institute of Packaging SA

BRONZE – Night Cap (group 1) R500/group member sponsored by The Institute of Packaging SA (Western Cape branch)

The department of Food Science would like to congratulate all NPD students for a job well done.



NutriSnacc won the 1st prize for packaging.

This beautifully designed packaging is both eco friendly and biodegradable. The information on the packaging complies with regulations and it even contains a biodegradable paper segment with seedlings and instructions to grow them.

Photo left: All NPD products packaged

Sponsors of ingredients and services

Thank you to all our sponsors. Without your generous contributions we will not be able to do NPD.



Thank you for sponsoring NPD at Food Science, Stellenbosch



foodriskforum
GUIDANCE & INFORMATION FOR THE FOOD INDUSTRY

Master of Ceremonies

mc microchem
Specialized Lab Services

Microbial & Nutritional analyses

SAAFoST
SOUTH AFRICAN ASSOCIATION for
FOOD SCIENCE & TECHNOLOGY

Marketing

Sponsors of services for NPD

More sponsors



Amajoya



in2food
Inspiring beyond food



NOMU



The teams for 2021 NPD

1. Kiara Bester

2. Afika Gqagqa

3. Lara Harris

The NightCap Team

4. Karlene Lambrechts

5. Isabelle Martin

6. Kayla Morrison

7. Tayla Nel

8. Alexia Papageorgiou

Aviva Bites Team

Caera O'Neill

Mia Schutte

Julia Kohler

Namsie Bouthwanye

Seth Gilbert

Jana Janse van Rensburg

Chad-Lee Apollis

Lisa Kotze

Maizey Peach Team



TARIEN RIEKERT



CHANÉ STEYN



JANA LOMBARD



SINESIPHO GALADA



ERICA BREITENBACH



RENÉ WENTZEL



ANJA LOURENS



VICTORIA KNOTT



LUKE JEFTHA



Rebecca Jo Helman
Leader
Chemistry, HACCP



Juanita Botha
Leader
Packaging, Micros



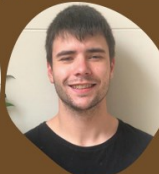
Cassandra Nortje
Sensory, Micros



Danielle van der Westhuizen
Sensory, Packaging



Jade Collier
Chemistry, HACCP



Eduard Zehrt
Sensory, Production



Mari van Wyk
Sensory, Micros



Francine Olivier
Packaging, Production,
Chemistry



Emily Gewer-White
HACCP, Production,
Packaging

The NutriSnacc Team

Sweet PEA



Stephanie Kolakis
Team leader
Formulation
Chemistry
Sensory



Petra Lutegan
Team leader
Formulation
Chemistry
Sensory
Packaging



Tawina Chimphango
Quality chart keeper
Formulation
Chemistry
Sensory



Dian van Tonder
Microbiology
HACCP



Jessica Martin
Group coordinator
Microbiology
Legislation



Jessica Leach
Minute-taker
HACCP
Microbiology



Margot Küster
Formulation
Chemistry
Sensory
Packaging

Nutribite Team



Talani van Schalkwyk



Alessia de Chaud



Gabby Myburgh



Julia Munford



Rewaldo Carolus



Nicole Meyer



Nina Frielingsdorf



Andreia Caldeira



Mogamat Solomon

Food label study brings PhD student top honours

PhD student Melvi Todd (picture) of the Department of Food Science was recognised by the SA Medical Research Council (MRC) at the 10th annual Biomedical Research and Innovation Platform (BRIP) Symposium. She was presented with the award for the best PhD oral presentation.

The event was hosted online. It attracted speakers and postgraduate student presentations on a wide range of topics in medical science. Dr Christo Muller, interim director of BRIP, said: "The major goal of the symposium was to offer young, aspiring scientists the opportunity to showcase their research within a constructive learning environment that encourages scientific exchange and the sharing of knowledge."

Todd is completing her research through the ARC Infruitec-Nietvoorbij Institute. She is supported by the DSI/ARCI Honeybush Project and the National Research Foundation. Her supervisors are Prof Lizette Joubert (ARC and SU), Prof Gunnar Sigge (SU) and Prof Timothy Guetterman (University of Michigan in the US).

Todd is taking stock of what stakeholders such as food scientists, health professionals and several others think of food labels, and where opportunities for value creation exist. For example, the opportunity to make health claims related to non-nutritive compounds that show potential for reduction of risk factors associated with non-communicable diseases (NCDs), such as those present in endemic plant species such as Honeybush.

She explains: "I am in particular looking at how labelling can be improved so that people can actually understand and correctly interpret how healthy the food is that they buy. NCDs that account for 71% of deaths globally show little respect for gender, age or even income. Food labels are one of many tools that can assist consumers in making healthy food choices, potentially contributing to relief of the NCD burden."

She says the challenges in the use and interpretation of food labels in South Africa mainly relate to readability and comprehensibility. Based on the evidence about the country's rising NCD burden, it seems that current food labels are not having a meaningful impact on consumers' understanding of the link between food choices and their health.

The insights from this exploratory mixed methods research study will provide greater understanding to other researchers and policymakers involved with food labelling about how to tackle the issue better.

Although Todd's work takes a holistic view of the food industry, it will hopefully also shed light on how food labels can be used to adequately and accurately represent the health benefits that researchers have already ascribed to honeybush tea.

FROM: Febr, 2021 AgriSciences Newsletter

Journal Article

Todd, M., Guetterman, T., Sigge, G. & Joubert, E. (2021). Multi-stakeholder perspectives on food labeling and health claims: qualitative insights from South Africa. *Appetite*, 105606.

Media Exposure (Interviews):

14 October 2021: Radio 786 broadcasted a live radio interview with Melvi Todd entitled "How could food labels impact how we buy products?"

15 October 2021: eNCA broadcasted a live TV interview with Melvi Todd entitled "Food Labelling: Getting the labels right"

18 October 2021: Radio 702 broadcasted a live radio interview with Melvi Todd entitled "Food labels: Researchers call for healthier food choices to be the easy choice"

20 October 2021: Salaamedia broadcasted a live Facebook streaming interview with Melvi Todd entitled "What do food labels mean and can they be made more accessible and easier to understand?"

18 November 2021: SAFM broadcasted a live interview with Melvi Todd entitled "Five reasons South Africa isn't ready for health claims" (Based on the article in The Conversation)

Popular articles:

Four popular articles were published covering aspects of the scientific paper listed above:

Southey, F. Health claims in a developing country context: "Food labels are not a silver bullet to solve the NCD challenge". FoodNavigator (an international online newsletter), <https://www.foodnavigator.com/Article/2021/08/03/Health-claims-in-a-developing-country-context-Food-labels-are-not-a-silver-bullet-to-solve-the-NCD-challenge>

1. Todd, M. SA nie gereed vir gesondheidsaansprake op voedsel etikette nie. SU AgriSciences Newsletter, 109, Oct 2021, 16.

<https://drive.google.com/file/d/17XGccpWossaTsCpy9s4YTzZiUYtk3QX0/view>

2. Duvenage, E. SA not yet ready for health claims on food labels. Food & Beverage Reporter, October 2021 Issue, pages 24-26

Todd, M. Five reasons South Africa isn't ready for health claims on food labels. The Conversation, published online 9 November 2021 (<https://theconversation.com/five-reasons-south-africa-isnt-ready-for-health-claims-on-food-labels-170386>); The Conversation article was also featured in FoodstuffSA (on 19 November 2021): <https://www.foodstuffsa.co.za/five-reasons-why-south-africa-isnt-ready-for-health-claims-on-food-labels/>

#talksatstellenboschuni World Food Day on 16 October is aimed at creating awareness on eradicating hunger. Click on this link to listen to Melvi. In this podcast she talks about the use of health claims on food labels and the challenges related to this.



On 28 October 2021 the following students were rewarded for their hard work and dedication.

1. KITTY SIMMONS-PRIZE: R750

Danelle Bosman (90.5%) & Jesse Vosloo (90.5%)

To be awarded annually to a third year BSc Food Science student with the highest average percentage in Food Science 214 and Food Science 244 (Commercial Food Processing and Preservation)

2. BESSIE RETIEF-PRIZE: R1000

Karlene Lambrechts (89%) & Chané Steyn (89%)

To be awarded annually to a final year BSc Food Science student with the highest average in the undergraduate module, Sensory Analysis (FS 354).

3. MIMSIE SMIT-PRIZE: R1500

Anja Lourens (88%)

To be awarded annually to a final year BSc Food Science student with the highest average percentage in Food Science 344 module (Food of plant origin).

4. NONNA RABIE-PRIZE: R6000

Elma Engelbrecht (87%) & Kiah Saaiman (87%)

To be awarded annually to a second year BSc Food Science student for the best achievement in his/her first year in all Food Science modules.

5. JEANNE MARIE VAN DER POEL-PRIZE: R5500

Caera O'Neill

Awarded annually to a final year BSc Food Science student. Involvement in and general interest in Food Science as a field of study.

6. DEPARTMENT OF FOOD SCIENCE-PRIZE: R800

Lottie van Niekerk & Heidi Biehler

Awarded annually to a third year BSc Food Science student. Involvement in and general interest in Food Science as a field of study.

7. DEPARTMENT OF FOOD SCIENCE-PRIZE: R700

Kayla Swanepoel

Awarded annually to a second year BSc Food Science student. Involvement in and general interest in Food Science as a field of study.

8. DEPARTMENT OF FOOD SCIENCE-PRIZE: R600

Lieneke Eigenhuis

Awarded annually to a first year BSc Food Science student. Involvement in and general interest in Food Science as a field of study.

9. MATTIE JOOSTE-PRIZE (UNDERGRADUATE)

Mia Schutte (83.2%) R12 000

To be awarded annually to an undergraduate final-year student in BSc Food Science for having obtained the highest aggregate percentage for all modules over the first three years.

10. MATTIE JOOSTE -PRIZE (POSTGRADUATE)

Sebastian Orth (86%) R16 000

To be awarded annually to a PhD student for the best achievement in an MSc in Food Science degree.

11. SASKO-PRYS: R12 000

Jesse Vosloo (83%)

To be awarded annually to a third-year BSc Food Science student for the best achievement in all the first year and second year modules.

(Due to the fact that this was a virtual event, no pictures were taken this year)

Congratulations!

BSc Food Science, December 2021 graduates



Baccalaureus in die Natuurwetenskappe in Voedselwetenskap Bachelor of Science in Food Science

Juanita Botha
Kayla Brand
Erica Breytenbach
Andreia Gomes Caldeira
Tawina Victoria Chimpango
Jade Lyn Collier
Alessia De Chaud
Nina Frielingsdorf
Sinesipho Galada
Emily Gabrielle Gewer-White
Seth Jay Gilbert
Afika Gift Gqagqa
Lara Harris
Rebecca Jo Helman
Bernitia Hess
Jana Christa Janse van Rensburg
Luke Jordan Jeftha
Victoria Rose Knott
Julia Ardene Kohler (*cum laude*)
Stephania Eleni Kolatsis (*cum laude*)
Margot Küster
Karlene Lambrechts (*cum laude*)
Petra Lategan (*cum laude*)
Jessica Sarah Leach
Jana Lombard
Anja Lourens
Isabelle Martin
Jessica Beth Amy Martin
Nicole Meyer
Kayla Jodie Morrison
Gabby Jade Myburgh
Tayla Nel
Caera Ann O'Neill
Alexia Elizabeth Papageorgiou
Tarien Riekert
Mia Olga Schutte (*cum laude*)
Mogamat Moeried Solomon
Chané Steyn
Danielle Van der Westhuizen
Talani Van Schalkwyk
Mari Van Wyk
René Wentzel

This group of graduates celebrated their graduation earlier in December at Bontevlei. It was a joyous occasion to share with parents and friends as well as staff of the Food Science Department.

<https://www.sun.ac.za/english/graduation-programme>



March & Dec 2021 Graduation



PhD in Food Science

Pholisa Dumalisile (photo right)

Zandr  Germishuys (photo left with Prof Marena Manley)

Masters of Science, Food Science

Martine Beukes (*cum laude*)

Caroline Bursey

Sebastian Orth (*cum laude*)

Alicia Petrus (*cum laude*)

Bachelors of Science, Food Science

Denise Coetzee

Lise Moolman

Masters of Science in Food & Nutrition Security

Mikateko Maluleke

Xolisiwe Simelane

December 2021

Master of Science, Food Science

Kyle Corbett

Michael Esterhuysen

Stephanie Leigh Phelps

Marbi Schwartz (*cum laude*)

Christiaan van Schalkwyk

Master of Science in Food & Nutrition

Zizo Nangamso Bobo

Hema Kesa

Kalinka Clara van der Linde

Anri van Wyk (*cum laude*)

Sheree Joy Webber



Kyle Corbett submitting his MSc thesis