2016 July

he reason for the bright, colourful view of Simonsberg mountain I've picked as design for

the WINTER 2016 issue of the Newsletter, is to celebrate...

Celebrating our success while embracing our differences—that is what makes us a team. We have a few accomplishments to mention. The main drive behind these, are being a positive team with good leadership.

Some titles have changed around here; Dr Gunnar Sigge became Prof Gunnar Sigge while Prof Marena Manley became Mrs Marena Loots.

Six of the ten best (1st year) academic achievers in the AgriSciences Faculty is from Food Science Department, while Prof Pieter Gouws was named by the top achiever as the lecturer whom inspired her academic performance.

We are about to send a team of six Food Scientists to compete in an international competition after being nominated as finalists. The winner will be announced at the IUFoST, 18th Congress of Food Science and Technology, to be held in Dublin, Ireland from 21-25 August 2016.

These are a few of the highlights from the past six months. Please sit back & enjoy reading about the rest.

A Lombard



A chocolate sandwich spread crammed with sweet potato and beans sounds like the perfect way in which parents can sneak more vegetables into their children's food. Food scientists from students places Stellenbosch University are also hoping that the nutritious spread they call S'coolBeans will see them winning an interna- Engela Duvenage tional product development competition for students.

S'coolBeans is a low cost chocolate and hazelnut flavoured spread made from fermented red speckled beans (also known as sugar beans) and sweet potato. It has been named as a finalist in the International Union of Food Science and Technology (IUFoST)'s Food Science Students Fighting Hunger product development competition. It encourages undergraduate students to use their knowledge and skills to develop innovative food products to fight hunger. The winners will be announced at the end of August 2016 at the IUFoST's 18th World Congress of Food Science and Technology, to be held in Dublin in Ireland.

S'coolBeans was developed by Cenette Bezuidenhout, Carin-Marie Engelbrecht, Nicholas Grobbelaar, Taryn Harding, Shannon Howell and Megan Kleyn in 2015 while they were all fourth year BSc Food Science students. Cenette, Shannon and Megan are furthering their studies this year as masters degree students at Stellenbosch University while Carin-Marie, Nicholas and Taryn have started working in the industry.

According to Cenette Bezuidenhout, S'coolBeans is much more than just a way of stealthily incorporating vegetables into a tasty sandwich spread for children. It is high in protein and contains the necessary vitamins and minerals needed to ensure the development and growth of children, especially those from lowincome environments. She therefore believes it could be well suited to use in for instance school feeding schemes.

"S'coolBeans not only provides an affordable solution to fighting hunger but it also incorporates three of the current global food trends, such as new uses for fruit and vegetables, more prominence to protein and good fats, as well as carbohydrates," she adds.

The product is not yet on the shelves. The team is currently working with Innovus to develop the concept further, in the hopes of attracting a manufacturer interested in putting S'coolBeans on the market and available to school feeding schemes.

Click here to listen to their interview on Capetalk.http:// www.capetalk.co.za/articles/15199/stellies-newest-invention-nutritiousveggie-choc-spread-...

Nutritious veggie chocolate spread is taking food science



Picture (from left to right)

Taryn Harding, Nicholas Grobbelaar, Carin-Marie Engelbrecht, Megan Kleyn, Cenette Bezuidenhout, Shannon Howell.



S'coolbeans

Food Science 1st years, FIRST in AgriSciences Faculty E Duvenage

Two Food Science students, Emma van der Merwe and Lara Moller, were the top achievers from the Faculty of AgriSciences invited to the University's annual prestige evening for first year students.

The event was held at Neethlingshof, and celebrated the academic achievements of those who completed their first year in 2015. The top achievers from the various faculties were invited to attend. The students also had an opportunity to nominate a lecturer who has made a positive impact on their first year at Stellenbosch University.

Emma hails from the Boland and matriculated from Worcester Gymnasium. She is excited about the possibilities that her career as a food scientist holds, and hopes to make a difference in people's lives through it.

Emma nominated her chemistry lecturer, Dr Gareth Arnott. "He made chemistry fun and understandable and always managed to maintain a positive energy while lecturing," she explains.

Lara comes from Durban and matriculated from Westville Girls' High. About her choice to follow Food Science, she says: "I feel like I have found a way to combine science and yet still impact the people around me. This is exciting for the people's person I am."

She says the energy, jokes and support of one of her first year lecturers, Prof Pieter Gouws, has had a huge impact on her, and has helped her to succeed.

Prof Gouws says it was an honour to be acknowledges as such. "It reminded me again of the important task that every lecturer has."



Photo from left to right: Dr Gareth Arnott, Ms Emma van der Merwe, Ms Lara Moller & prof Pieter Gouws (SCPS)

Some JUICY facts...

How many consumers know that the juice carton featuring large images of oranges, the word "ORANGE" and '100%' probably only contains 50% orange juice, and 'reconstituted' from frozen concentrate , at that? ...

... Probably very few.

Dr Cindy Hunlun, who did the first investigative study of its kind in South Africa on the content and health value of locally produced orange juice, for which she was awarded a doctorate in Food Science Stellenbosch University last month, is recommending a change in the applicable legislation in order to protect consumers.

Most orange juice sold in South Africa is made from concentrate which is frozen and then sold to juice producers. Hunlun found that it has far less health value than a glass of freshly squeezed juice - lower phenolic levels and fewer anti-oxidants.

Plus, orange juice made from frozen concentrate is further diluted by the addition of other fruit juices, hence the description on most South African orange juice packs, "100% fruit juice blend".

The formulation of juice is determined by Department of Agriculture legislation, which allows for juice of a specific fruit type such as orange to be diluted by up to 50% with other fruit juices - typically apple, pear or grape or a combination - and be sold being described as, for example, Orange "100% juice blend".

"In the process, however, this drink loses many of the healthy characteristics which consumers assume are part of the juice made from a specific kind of fruit," Hunlun said.

"Many juice formulations only include the minimum amount of orange juice allowed by law - 50% - possibly due to cost as well as the high acidity of citrus.

"So to make it sweeter they add other fruit juices. My recommendation would be to increase the minimum percentage of the named fruit to perhaps 80%.

"That would allow the juice manufacturers to achieve the desired acidity while increasing the phytonutrient content that is specific to citrus fruit."

First prize would be to produce 100% orange juice solely derived from citrus, she said.

Hunlun, who worked in the juice industry for five years before being appointed as lecturer at the Cape Peninsula University of Technology, investigated the chemical and phenolic content of three widely cultivated South African orange varieties - mandarin, navel and valencia - in both the Western and Eastern Cape, over three seasons. She found that the anti-oxidant levels of the Eastern Cape oranges were higher than those of the Western Cape, making them more nutritious.

Dr Gunnar Sigge, Hunlun's supervisor and head of Stellenbosch University's Food Science department, said while a lot of work had been done on the cultivation and packaging of citrus fruit, local research into its health value had been minimal.

As much as 2 million tons of oranges are harvested annually for the export market and local consumption, some of them processed into orange juice.

* While fruit juice legislation falls under the Department of Agriculture, most food products fall under the Department of Health, which has stricter food labelling regulations, requiring manufacturers to give consumers more precise ingredient information. According to the regulations' "Quantative ingredients labelling and declaration" they must declare the exact percentage of an ingredient highlighted in a product description. So, for example, a blueberry snack bar would have to reveal the percentage of blueberries in its ingredients list.



Dr Cindy Hunlun



Article and Photo by: http://www.timeslive.co.za/thetimes/2016/04/26/When-100-is-just-50

Wendy Knowler

Dr Paul Williams judges in world's largest UA

ood Science lecturer, Dr Paul Williams, recently served as a judge for the

world's largest academic awards programme. It is known as *The Undergraduate Awards* (UA), and is based in Ireland. The UA recognises innovation and excellence at undergraduate level.

Moreover, the UA identifies leading creative thinkers through their coursework and provides top performing students with the support, network and opportunities they require to further their career paths.

The 2015 programme received more than 5 000 submissions in 25 diverse categories. They represented 255 universities in 39 countries. Williams acted as a judge in the Earth and Environmental Sciences category.

Article from the AgriSceinces Febr 2016 (nr 76) Newsletter





Michaela and Andrew van den Honert (Mathew van den Honert, Food Science Alumni's, younger brother) got married on 19 December 2015 at Somerset West Baptist church and the reception was held at the Vergelegen wine estate. Michaela graduated in 2015 and is currently busy with her MSc.

Listen to the radio

The Western Cape Department of Agriculture produces two weekly radio programmes broadcasted on RSG 100 - 104fm. Tune in Friday mornings at 04:30 to listen to RSG Landbou and Saturday mornings at 11:45 for Elsenburg Forum. Dr Chris Viljoen, a seasoned agriculturalist and radio presenter interviews interesting people on current affairs in agriculture across the country. If you missed the live broadcasts, be sure to listen to it by clicking on the link below.

http://www.elsenburg.com/resource-library/radio-elsenburg

Technology opens doors for collaboration and capacity-building between African universities Pia Nänny

A capacity-building project linked to Stellenbosch University's (SU) Faculty of AgriSciences and funded by the European Union has paved the way for SU's Centre for Learning Technologies to extend its footprint to Uganda and Kenya through its Division for Telematic Services.

As part of the PASUFONS project, two telematic learning centres were launched at the Makerere University in Uganda and the Jomo Kenyatta University of Agriculture and Technology in Kenya. This historic event was celebrated with a live interactive satellite broadcast from Stellenbosch to these centres in Kampala and Nairobi on Wednesday , 10 February 2016.

The PASUFONS project is a collaborative project funded by the European Union under the ACP-EU EDULINK II programme. It is coordinated by Prof John Muyonga at Makerere University, Prof Marena Manley at Stellenbosch University and Dr Arnold Onyango at Jomo Kenyatta University of Agriculture and Technology. The South African Association of Food Science and Technology (SAAFoST) and the Regional Forum for Capacity Building in Agriculture (RUFORUM) are associate partners.

Prof Schoonwinkel referred to the PASUFONS project as a true African partnership. "Other projects will hopefully also make use of this platform to enhance collaboration."

He added that it fits in well with SU's vision of being future-focused and innovative.

Prof Muyonga described the launch as a milestone for the PASUFONS project.

"It has been a long journey," he said. One of the major challenges had been getting permission from local broadcast authorities in Uganda and Kenya to set up receiving centres at the respective partner universities.

"I'm happy that we are finally launching this project. PASUFONS has invested in this infrastructure and we want to utilise it, but also share it. The technology makes it easier to share expertise and we encourage other units to make use of this opportunity."

Prof Kenji spoke about the importance of the food science and nutrition field in Africa. He explained that the number of institutions offering courses in food science have increased and that this platform will play a big role in sharing human resource capacity as well as research findings.

"It is a very big innovation and a good strategy to achieve the goals and objectives of PASUFONS," he added.

To read the full article please click on: http://www.sun.ac.za/english/Lists/news/DispForm.aspx?ID=3514



In the Stellenbosch University Telematics broadcasting studio are from left to right: Prof Marena Manley, Prof John Muyonga, Prof Glaston Kenji, Dr JP Bosman, Dr Antoinette van der Merwe, Ms Cornelia Jacobs, Prof Arnold Schoonwinkel and Ms Zainab Suliman

Time to graduate

During the March 2016 graduation ceremony, 8 BSc Food Science degrees, 3 MSc in Food Science and 4 MSc in Food Science Cum Laude as well as a record number of 6 PhDs were rewarded.

Congratulations to all graduates & supervisors!

MSc Food Sc	MSc Food Sc (cum laude)
Sandra Balet	Carmen Bester
Tshepiso Mokhoro	Marilet Laing
Sonlei (Jason) Zhang	Francois Olivier
	Claire Pauck

PhD (Food Science)

Shuaibu Bala— Effect of forced convection roasting on physicochemical and antioxidant properties of whole grain maize (Zea mays L.) and optimisation of roasting conditions.

Supervisor: Prof M Manley Co-supervisor: Prof UL Opara

Theresa Beelders— Xanthones and benzophenones from Cyclopia genistoides (honeybush): chemical characterisation and assessment of thermal stability.

Supervisor: Prof E Joubert Co-supervisor: Prof GO Sigge

Rufina Chukwumalume—Assessment of persistent organic contaminants in selected marine fish species along the South African coastline.

Supervisor: Prof LC Hoffman Co-supervisor: Prof UL Opara

Jeannine Marais—Factors influencing the flavour of the meat derived from South African game species .

Supervisor: Prof LC Hoffman Co-supervisor: Ms M Muller

Nikki Neethling—Factors influencing colour variation and oxidative stability of South African game meat species.

Supervisor: Prof LC Hoffman Co-supervisor: Prof GO Sigge

Cindy Hunlun—Characterising the flavonoid profile of various citrus varieties and investigating the effect of processing an the flavonoid content.

Supervisor: Prof GO Sigge

Co-supervisor: Dr D de Beer and Prof J van Wyk



$high PROTEINs nack FOOD \bullet \ high PROTEINS nack FOOD \bullet \$





Group 1: Winners of the INNOVUS, 3rd prize with their product ChocQSnap





Group 2: Winners of the SAAFoST prize for product with best commercial potential with their WaFills





Group 3: Winners of the SAAFoST prize for best product and presentation with 'Torteinos'

highPROTEINsnackFOOD• highPROTEINsnackFOOD• highPROTEINsnackFOOD•



Group4: Winners of the INNOVUS 1st prize for their product YogiBurst



Group 5: Winners of INNOVUS 2nd prize for their product FAVA fuel



Group 6: Creators of the scrumptious product, Fro-Yo bites

Students benefit from SAAFoST Bursaries and Awards



 ${
m T}_{
m he}$ South African Association for Food Science and

Technology (SAAFoST) through its SAAFoST Foundation awarded 23 bursaries to students studying food science and technology at South African tertiary institutions in 2016. Stellenbosch students again excelled and account for 13 of the 23 bursaries. The awardees are Emma Phillips, Alexandra Rust, Kayla-Anne Jordaan, Caroline Bursey, Stephanie Phelps, Jani Bischoff, Delia Meyer, Nicolene Moelich, Annette Grobbelaar, Rochelle Keet, Clarice Gomes, Paula Smit and Kayla Steyn.

This year was also the first in which SAAFoST Awarded two Brian Koeppen* Memorial Scholarships, one for an MSc student and one for a PhD student. The Department was very excited to learn that both scholarships were awarded to students studying at Stellenbosch, namely Neil Miller (MSc) and Letitia Schoeman (PhD). Each scholarship is worth R30 000 and goes towards tuition fees or academic related activities (such as conference attendance). Congratulations to all of these students on their excellent achievements!

*Prof Brian Koeppen was Chair of the Department of Food Science from 1970 to 1980.



Photo: Letitia Schoeman & Neil Miller

Waste: What a resource!



GO Sigge

At the end of May and beginning of June, I again had the pleasure of visiting my favourite European city, Munich. The reason for my visit to the beer capital of Germany was to again attend a GIZ Expert Seminar and Technology tour on "Environmental Technologies for South Africa" including two days at the world's largest waste and waste management exhibition – IFAT 2016. The seminar and technology tour included presentations and workshops on legal, political and economic framework conditions in the environmental sector in Bavaria/Germany, knowledge on environmental technologies, dialogues with experts and on-site visits to waste treatment, management and recycling plants. The networking of like-minded, waste management and waste treatment specialists from mainly the Western Cape and Gauteng was also extremely valuable, but the highlight was attending the IFAT Exhibition



for two days (which is actually far too short). There are *ca*. 3 100 exhibitors at IFAT, spread over 16 halls and a massive outside area (equivalent to two more halls) covering every aspect of waste. My special interests were anaerobic wastewater treatment and related technologies, alternative water disinfection technologies (i.e. UV), compact wastewater systems, analytical equipment and water saving technologies. I averaged 12 km of walking on the two days at IFAT – so also good for my health.

Ellen Hüster, Gunnar Sigge and Anel Blignaut at IFAT



Dr Gunnar Sigge was recently promoted to assistant Professor.

Who is the man at the helm at Food Science?

He graduated with BSc (Food Science), 1992; MSc (Food Science), 1996 & PhD in 2004 all @ Stellenbosch Food Science Department.

Gunnar first started working at the Food Science Department in 1993 as a Technical officer while he was busy with his post-grad studies. In 2003 he was promoted to lecturer and later to senior lecturer. He took over the roll as Departmental chair from Prof Corli Witthuhn in 2009.

To date has supervised 18 completed masters theses and co-supervised 16. He can also add 1 completed doctoral dissertation and 5 doctoral dissertations as co-promotor as well as a BScHonours and a BTech Food Technology candidate as supervisor & co-supervisor to his list of accomplishments.

The main focus of his research and undergraduate teaching involves the Food and Beverages processing industry, treatment of waste water and irrigation water , anaerobic biomass enhancement by magnetic particles as well as Food Safety. He has 33 full length articles in refereed journals (3 submitted for publication); 3 published conference proceedings, 5 reports, 1 article in a book and 4 popular articles not to mention all the posters and papers (75+) he's represented both at local & international conferences. Then there is a list of awards, ranging from the Stellenbosch University's Rector's award for excellence in research and general performance, Unifoods Award as well as the Dreosti Award to name a few.

Gunnar is also proudly associated with SAAFoST and has been in a leadership position in this association (for several years) both in the western Cape and on a national level. He is a member of another 6 Professional Societies as well as a number of Stellenbosch University committees. He has attended several international courses and has performed as reviewer a number of times.

And this, in a very small nutshell, is the story of Dr Gunnar Sigge, recently promoted to Prof Gunnar Sigge.

But who is the man behind all the important achievements and the big title? I asked a few colleagues and former students to give me a one-line summery of PROF Gunnar Sigge ... the result is not unexpected...

...'a true gentleman with lots of empathy and patience with his students'...

Om soggens by die werk in te stap, en te sê, "Môre Gunnar" as jy by sy kantoor verbystap - en dan kom die gebruiklike en gemoedelike 'heeello' en jy weet - als is reg en nog 'n goeie dag by die Departement lê voor. (MM)

The words that came up most frequently were gentleman, humble, hard working, kind, patient and understanding. I'd say if you combine all this with German precision you have a winning combination!

From our side, Gunnar, Prof Sigge-congratulations!



Here comes the bride ...

On Saturday 30 April 2016 Marena Manley & Gerrit Loots tied the knot. Congratulations!







Uit die Noordkaap waar soetdoringsomers uit rooigrond en vaalgras blom...

sonbesies skril crescendo-simfonieë eentonig aan lugspieëling hang, vlieg twee kransduiwe afsonderlik suid ... van Kimberleyen Koegas, om véél later, oor soeler, groener kaapse wingerde, ná stormwind en reën op Hofmeyr se nok in die maand van April, 'n rusplek te vind. Sodat, van hier af vorentoe... hulle nie verder alléén windaf sal vlieg nie ... (G Loots)



nGAP position allocated to FOOD Science, SU

Pia Nänny

The Department of Food Science within the Faculty of AgriSciences received one of four nGap positions allocated to Stellenbosch University (SU). A total of 79 allocations were made to universities across South Africa.

The New Generation of Academics Programme (nGap) initiated by the Department of Higher Education and Training (DHET) is intended to support universities to recruit new academics in line with their staffing and development plans. Applicants must be younger then 40.

The DHET carries the costs of the position for the first three years, after which the university starts to contribute to the young academic's cost to company. The nGAP will also enable the newly-recruited lecturers to benefit from teaching and research development opportunities.

Prof Gunnar Sigge, Head of the Department of Food Science, said he is very relieved and happy about the nGap position allocated to his department as staff member capacity has been a challenge for the past few years. Although the new appointee will not be expected to handle a full workload in his/her first three years, this appointment will assist in easing the teaching and supervisory load of the current staff members.

Student numbers in the Department of Food Science have increased by 54% since 2008 but the academic staff complement only increased by one from five to six, even though an external evaluation suggested that the academic staff contingent should be doubled by 2013.

"Furthermore, students from other degree courses, for example BSc Agric (Aquaculture) and BSc Agricultural Economics also follow certain food science modules, further increasing the class sizes," added Prof Sigge.

"Undergraduate BSc Food Science numbers totalled 231 in 2015, while 30 MSc students and 22 PhD students were enrolled at the same time. Thus, it is clear that the academic staff have a high undergraduate teaching load, as well as a high postgraduate supervisory load. Applications to the undergraduate BSc Food Science degree are still increasing with over 100 applications for admission in 2016. There is also an increasing trend in applications to the postgraduate programmes in food science (MSc and PhD).

"An additional academic staff member will thus benefit the undergraduate programme, broaden the expertise base, increase research outputs and strengthen postgraduate supervisory capacity."

He believes everyone will benefit from this arrangement. "The new employee receives the opportunity to enter the academic world and has time to establish him- or herself, while the department gets an extra staff member and has time to ensure that this post is economically viable."

The importance of food science in food and nutrition security, alleviating hunger and contributing to health and well -being is recognised by the fact that food science has been declared a "scarce skill" in South Africa.

"Well trained, skilled, creative and dynamic food scientists with a multitude of different areas of specialisation are thus a critical requirement in addressing these challenges," said Prof Sigge.

Dr Maricel Krügel back @ Food Science, SU



We are glad to announce that Dr Maricel Krügel was appointed as lecturer at Food Science, Stellenbosch from 1 July 2016. She will be teaching the Food Science 144 and 478 modules. To these students she is their new lecturer, AKA Dr K, but to this Department she is no stranger.

Maricel graduated with a BSc Agric in Food Science at UFS in 1999. She accompanied a friend to Stellenbosch who came for an interview to be accepted for a MSc at the department. According to Maricel the did not even know what a MSc was at the time. Well, she learned quickly, because she was also accepted to do her masters and ended up graduating with a PhD in 2006 and the rest is history.

In 2007 she did a Post-doc in Prof Pieter Gouws's lab at UWC and later the same year she was appointed as lecturer at

CPUT. She was a senior lecturer at CPUT until she joined the Stellenbosch team earlier this month.

Maricel lives in Stellenbosch with her husband Koos, an engineer at MBB Consulting Engineers and their 2 daughters Ilke (3) and Kadi (5 months). We welcome the Krügel family to the Food Science Department and wish you many happy and fruitful years.

Maricel's fields of research include, 'Alternative processing techniques and Mycobacterium avium subsp. paratuberculosis .

Spectral Imaging @ Chamonix, Mont Blanc

TL Kammies





Dr Paul Williams and I had the privilege to attend the International Association of Spectral Imaging conference in Chamonix Mont-Blanc, France in the first week of July 2016, where I presented part of my MSc research. It was extremely insightful and beneficial to attend presentations and network with experts in the field of spectral imaging. It was also a huge privilege to have the opportunity of presenting at an international conference.

Even though it was a short visit, we were able to explore the charming small town of Chamonix and have the experience of visiting the Alps surrounding it. I received one of three student scholarships awarded by the French Chemometrics Society, without which this trip would not have been possible. Part of the trip was also funded by the postgraduate travel grant of the NRF. I would like to express my sincere gratitude to both organisations as well as to Dr Williams for their generosity and for making the trip a successful one.

Photo left: Terri-Lee Kammies in Mont Blanc

IFT16 – bigger is better in USA!

From the 16th-19th July in Chicago it was time for the Annual Meeting and Food Expo of the Institute of Food Technologists (IFT). The largest food science event I have ever attended, with close to 24 000 delegates and approximately 1 000 exhibitors, makes this quite a daunting event. Apart from attending the conference and exhibition, I was also invited to be part of a panel that addressed the participants of IFT's Emerging Leaders Network. The programme for the participants consisted of a two day workshop focused on equipping young professionals with tools to develop in the careers and included aspects of leadership, time management, communication skills, career planning, and many more. The panel I served on consisted of industry and academic professionals, who could share some of their experiences and advice with the participants.

The conference included *ca*. 100 sessions over the three days, so one had to be very selective with which sessions one wanted to attend – normally there were at least two or three on simultaneously, which I would have liked to attend. Walking distances between sessions also had to be factored in as the McCormick Place South venue is quite large – think CTICC, but double the size.

I also had a surprise reunion with Marilene van Schalkwyk(photo), with whom I graduated at the Department in 19?? (well, back then!). Marilene is now living in the USA, North Carolina and is the Territory Manager, Southeast for Tate & Lyle.





Conference venue, McCormick Place South

What are YOU doing with your Food Science degree?



We are also interested in your career path as Food Scientist. Please let us know what you are up to.

This is Brian Grey's story.

Background – what did you study, when did you finish? I graduated with a M.Sc. in Food Science in 2003.

What is your current employment? I am a Specialist in Research & Development at KWV South Africa.

How did you get the job?

Initially I applied for a position as Analytical Chemist at KWV and although I made the cut for top-2 candidates, I was unsuccessful in securing that position. A few months later, however, KWV contacted me with an offer for work within their New Product Development department.

What is exciting about your work?

Directly developing, or supporting the development of, new products (alcoholic beverages) is exciting in its own right, but I truly enjoy the process of design and development, from concept to shelf. Taking an idea and making it work, and actually seeing the end result in the marketplace, provides a lot of satisfaction to me. Additionally, apart from new products, I am also involved in process development, where research and practical experimentation helps to improve the production and transport of our products, helping to maintain product integrity and quality up to the final consumer.

Your advice to students who are entering the job market:

As difficult as it may be, try to identify what you love to do – not just what you are "trained" to do from your studies. Also, sometimes it is good to know where you want to get to, and accept that you will have to work your way to that point. Use every opportunity you have to learn as much as possible, but do not lose sight of your goal.

What would you have done differently during your years at university?

If it had been available/better communicated, I would have tried to attend more workshops or short courses to broaden my general business exposure. I've found that a better understanding of aspects like marketing, sales, procurement and logistics, that were outside of my immediate study direction, can go a long way to helping you integrate within the work environment.

Beer, Bicycles, Red Devils ... en Asperges op Vlaamse wijze Marena Manley

The Exchange Programme for Academic and Administrative Staff Members, Stellenbosch-KU Leuven Programme 2016 and NRF funding enabled a two-month long visit (May-June) to the research group of Prof Bart Nicolaï (Chair, Department of Biosystems) within the Faculty of Bioscience Engineering, Department of Biosystems, Division of Mechatronics, Biostatistics and Sensors (MeBioS).

Together with PhD student Letitia Schoeman and Dr Anton du Plessis, work was done during the visit on a collaborative project using 'skeletonization' to better illustrate the effect of different roasting techniques on maize X-ray micro-computed tomography (microCT) imaging data. This image analysis technique enables one to illustrate the size and inter-connectness of voids in porous samples. We will now use this data analysis technique also within our other X-ray research projects.

Following the visit, Mr Bart Boelen, from KU Leuven (supervised by Prof Wouter Saeys) will spent 3 months from the end of July at the Department to complete his MSc thesis.

With Euro 2016 taking place during my visit, in spite of the rain, one had to also enjoy Belgium's wonderful beer and cuisine and cheer on the Red Devils...

