



# Nuusbrieff/Newsletter

IUFoST Food Science  
World Congress 22-26  
August 2010

As most food scientists in South Africa know, SAA-FoST will be hosting the IUFoST World Congress of Food Science and Technology in Cape Town next. As this promises to be the biggest Food Science Congress held in South Africa, the department is planning on having a big presence at the Congress. The department will not only be sending a number of students to present and attend, but will also have an exhibition stand at the Expo to advertise our undergraduate and postgraduate courses. Several students have already signed up for the Student Volunteer Programme. Labotec and Bokomo have already pledged their support of the department by contributing towards our exhibition stand. For more info on the Congress, visit the website at [www.iufost2010.org.za](http://www.iufost2010.org.za)



## *Word from the Chairman, Dr Gunnar Sigge*



Totsiens 2009, Viva 2010!

Dit is ongelooflik hoe vinnig 2009 al weer tot 'n einde gekom het en die Kersfeestyd voor ons lê. Ek dink almal is net bly dat daar weer geleentheid gaan wees om die batterye bietjie te laat laai vir 'n 2010 wat seker nog vinniger verby sal gaan, aangesien ons vroeër in die jaar met klasse moet begin agv die Fifa Wêreldbeker in Junie.

The past year was one full of challenges and changes within the Department, but personally I think it has been a year to be remembered for several highlights!

An Advisory Board for the Department was initiated and a very fruitful and positive session was held in July and hopefully further such sessions will take place in the future. These discussions are mainly focussed on the quality of our undergraduate programme and ensuring that our students are optimally prepared for their careers.

The increased interest in postgraduate studies has resulted in a record number of postgraduate students in 2009, with 30 MSc and 9 PhD students registered. Indications are that we will exceed this figure in 2010 putting serious pressure on personnel and infrastructure capacity. Some very good news in this regard is that expansion and refurbishment of the department's building will commence sometime in 2010 – to the tune of R21.7 mil-

lion! This will alleviate some of the spatial constraints. Further good news is that the department is in the process of appointing Mr Chisala Ng'andwe as a lecturer – hopefully effective from 1 January 2010 – to take charge of the Food Chemistry and Analysis course.

Another highlight is the awards that staff and students received during the year! A Rector's Award for Outstanding Service was awarded to Petro du Buisson a Technical Officer in the department for her excellent work ethic. Congratulations!

The Department's students, both undergraduate and postgraduate, never cease to amaze me with the number of awards, bursaries and prizes that they are awarded with and a special mention must go to the group of final year students that excelled at the IPSA Student Gold Pack Awards (see separate article). The quality of our students entering industry and the awards and prizes they receive are our biggest advertisement and they certainly do us proud!

Geen van hierdie hoogtepunte sou eger moontlik gewees het sonder die besondere toewyding van die Departement se personeel – dus wil ek 'n GROOT DANKIE sê vir al die personeel se bydraes tot die Departement se sukses in 2009!

Ek wens almal 'n wonderlike, rustige en geseënde Kersfees toe en hoop almal keer veilig en uitgerus terug vir al die uitdagings van 2010.

## Voedselwetenskap haal hande uit hul moue vir Gemeenskapsprojek (N Brown)

Op 07 Julie 2009 het die personeel van die Departement Voedselwetenskap, Stellenbosch Universiteit, tyd uit hul besige skedules geneem om die Stellenbosch gemeenskap se Voedingsaksie te dien. Onder leiding van Prof. Trevor Britz het dié span 375 kg aartappels verwerk, geblansjeer, en kilogram pakke gevriesde aartappelskyfies geproduseer. Die aartappels is van 'n anonieme skenker ontvang. Mnr Willie van Ryneveld van die Stellenbosch Voedingsaksie, het hand bygesit en was hoogs tevrede met die opbrengste.

Op die foto van links na regs: Mnr Eben Brooks, Me Petro du Buisson, Prof Trevor Britz, Mnr Willie van Ryneveld (STB Voedingsaksie) en Dr Natasja Brown.



## Open Day 2009 Ope Dag (N Brown)



From left to right: Learners from various schools, Post-grad students from Food Science, Dr Natasja Brown, Prof Trevor Britz sharing information with learners regarding the Food Science Program.

The annual Stellenbosch University Open Day was held on 5 August this year and was attended by over 4500 learners from across the country; learners and their parents were able to visit 94 exhibitions from the different departments of the University.

Our Department saw this as an ideal opportunity for Grade 11 and 12 learners to obtain valuable information regarding Food Science and therefore prepared a display whereby prospective students and their parents got a chance to explore the various possibilities in pursuing Food Science as a career option.

This day was marked with great excitement from the learners and we had much fun as learners participated in testing their knowledge on our Department and Food Science in general. Each learner who participated in the various *quizzes* received stationery and a strip of five Maximize cereal packages, which were kindly donated by Vacutec and Bokomo respectively. More than 75 participants received gift hampers, which were kindly provided by Sasko. Four participants each won a hamper, which was kindly sponsored by Bokomo. Two participants each won a hamper,

which was kindly sponsored by Heinz. Centrotec and Sigma Aldrich made financial contributions, which were used towards purchasing items that enhanced the appearance of our stall. United Scientific kindly sponsored an A<sub>0</sub>-poster, which attracted much attention and helped us in promoting our Department and courses.

By presenting the participating learners with the above-mentioned prizes we recognized the potential in each learner as a prospective food science student; our intention was to encourage each learner to investigate their interest in food and the science thereof. Being able to present these gifts as a gesture of recognition of their potential and, since Food Science is a scarce skill in South Africa, we attempted to positively reinforce them in wanting to make a difference by indirectly impacting the wellbeing of every South Africa.

The Department would like to thank each sponsor for their generous contributions.

Correction does much, but encouragement does more.—Johann Wolfgang von Goethe

## Pryse oorhandig in 2009

1. SIMMONS (KITTY SIMMONS-PRYS) R300.00 Nina Van Schalkwyk  
Jaarliks aan 'n derdejaar-BSc Voedselwetenskapstudent wat die hoogste gemiddelde persentasie in Voedselwetenskap 214 Kommersiële Voedselprosessering Preservering I en Voedselwetenskap 244 Kommersiële Voedselprosessering Preservering II behaal het.
2. RETIEF (BESSIE RETIEF-PRYS): R300.00 Theresa Beelders  
Jaarliks aan 'n finalejaar-BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie in die module Sensoriese Analise
3. SMIT (MIMSIE SMIT-PRYS): R500.00 Maurenique Greyling  
Jaarliks aan 'n finalejaar-BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie in die module Voedselwetenskap 344, Plantaardige Voedselprodukte.
4. RABIE (NONNA RABIE)-PRYS: R1 700.00 Karo Bester  
Jaarliks aan 'n tweedejaar-BSc Voedselwetenskapstudent vir die beste akademiese prestasie behaal in sy eerste studiejaar vir alle modules.
5. DEPARTEMENT VOEDSELWETENSKAP-PRYS Christine Rogowski  
Jaarliks aan 'n derdejaar-BscVoedselwetenskapstudent. Betrokkenheid by en algehele belangstelling in Voedselwetenskap as studierigting.
6. VAN DER POEL (JEANNE MARIE VAN DER POEL)-PRYS: R1 400.00 Gaynor Olivier  
Jaarliks aan 'n finalejaar-BSc Voedselwetenskapstudent. Betrokkenheid by en algehele belangstelling in Voedselwetenskap as studierigting.
7. MATTIE JOOSTE (VOORGRAADSE)-PRYS: R3 250 Lehana Steyn  
Jaarliks aan 'n finalejaar BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie oor die eerste drie studiejare vir alle modules.
8. JOOSTE (MATTIE JOOSTE (NAGRAADS)-PRYS: R5 000.00 Paul Williams  
Jaarliks aan 'n afgestudeerde MSc (Voedselwetenskap)-student met die beste nagraadse akademiese prestasie.
9. SASKO GRAAN-PRYS: R8 000.00 Nina Van Schalkwyk  
Jaarliks aan 'n derdejaar-BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie oor die eerste twee studiejare vir alle modules.
10. Suid-Afrikaanse Vereniging vir Suiweltegnologie Lehana Steyn  
Finalejaar student met die hoogste gemiddelde persentasie in eerste drie studiejare vir alle Voedselwetenskapmodules.
11. SAAFoST, AUBREY PARSONS STUDY GRANT: R20 000 Lehana Steyn
12. SAAFoST, ACADEMIC ACHIEVEMENT AWARD: R1000 Ilona Koch

If you think education is expensive, try ignorance.—Derek C.Bok

## So what are these visitors doing at the Department of Food Science?

(A Lombard)

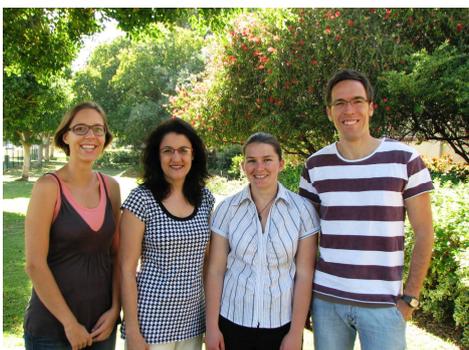
Dr Marena Manley, internationally respected researcher and senior lecturer at the Department of Food Science again attracted 3 brilliant researchers from other parts of the world. We've come accustomed to a cosmopolitan atmosphere in the NIR lab.

I asked them to explain in their own words where they are from & what they are up to....

I am an Assistant Professor from University of Copenhagen in Denmark and I am here to initiate collaboration with the Department of Food Science and IWBT. I will mainly be involved in data analysis (chemometrics) of various data sets but will also set up small workshops to spread the word of chemometrics. The outcome for me will be an increased understanding of data analytical problems found here in Stellenbosch and to apply existing and/or develop novel methods that can handle data more efficiently. (Thomas Skov)

I am a PhD-student from the Department of Food Science, University of Copenhagen (<http://www.en.ifv.life.ku.dk>) who is visiting Food Science at Stellenbosch University for five months to do part of my PhD. I work with the chemical composition and quality of Marama bean products. (part of an EU funded project, for more information see: <http://www.marama.life.ku.dk>).

Here at SU I am trying to apply near infrared hyper spectral imaging to the beans as well as other products in order to investigate the distribution of chemical components. (Mette Holse)



From left to right: Mette Holse, Marena Manley, Cushla McGovener, Thomas Skov

I arrived at the start of October and will be here at least until the end of 2010 in Dr. Manley's lab. I grew up in the Waikato Chiefs province (North Island, New Zealand) and completed my undergraduate and postgraduate studies in the region of the Otago Highlanders (South Island, New Zealand) at the University of Otago.

After a hasty retreat from computational chemistry, my PhD (still in chemistry) focussed on the use of Raman spectroscopy in the analysis of dairy products, however, I have pretty much put whatever would fit and what wouldn't (for example a two metre whale rib – we used a fibre optic probe) into the Raman systems I had access to.

Thank you all for making me feel welcome so far and I look forward to the rest of my time here. (Cushla McGovener)

Mette, Cushla & Thomas, welcome to Stellenbosch!

## Cushla McGovener received a Claude Leon Fellowship

In November 2009 Cushla was awarded a Claude Leon fellowship to conduct research in Dr. Marena Manley's lab for two years from the start of 2010. The Claude Leon Foundation is a charitable trust that each year awards fellowships to South African and foreign postdoctoral scientists to conduct research within South African universities. The project that was funded will involve using near infrared spectroscopy to investigate endosperm texture within cereal grains.

## Anreza van der Merwe & Janita Botha received huge bursaries from NRF



Anreza van der Merwe (left) and Janita Botha (right) both received a NRF Scarce Skills Bursary in 2009. They are both in the second year of MSc in Food Science. Anreza's topic for her MSc is "Genotypic variation in fruit quality traits related to consumer appeal in apple breeding families" and Janita's is "Chemical and sensory investigation of Brett flavour in selected South African wines. Congratulations to both of you!

"Success is simply a matter of luck. Ask any failure." Anonymous

## Best 1st year seminars awarded with a gift from Simply Asia .... Simply Great!

The first year students were given the task of presenting a seminar on any processed food product. Stephanie Bosman, who chose salami as a topic, and Fiona Rolstone, who spoke about Rooibos tea, were awarded the prizes for best seminars. Simply Asia Stellenbosch provided each student with a R100-gift voucher. Their hard work & stress were well rewarded!

Stephanie Bosman described the event as following .....

On Tuesday, 3<sup>rd</sup> October, Natalie Smyth and I went for dinner at Simply Asia in Dorp Street, Stellenbosch. It was a wonderful experience as not only was the food absolutely delicious, the staff were warm and friendly. As there was so much to choose from on the menu, we decided to share a starter, have a main meal and share a dessert. For starters we had *Po – pia gai*: marinated chicken strips wrapped in crispy pastry served with sweet chilli sauce. These chicken spring rolls were fresh, light and crisp – an excellent beginning to the meal. For main course we both had the *Ba – mee prik-phao gai*: yellow noodles and tender chicken stir fried with cashew nuts and fresh vegetables in a roasted chilli paste. The portions were very generous and we struggled to finish but the main course was even better than the starter! We chose the mild option so it was not too spicy. The cashew nuts were a complimenting addition to the dish, which was a fantastic mixture of different flavours. As the waiter came to clear our main course plates, he insisted we try the chocolate spring rolls – how could we say no? He was adamant we tried them and so we gave in to temptation and ordered a plate of chocolate spring rolls. These spring rolls were spring rolls from heaven. They were warm and crisp and filled with melted chocolate and were served with ice cream which made the dessert complete. All in all it was a great experience and much appreciated. Thank you Simply Asia. We will definitely be going back!



Stephanie & Natalie @ Simply Asia



Stephanie & Fiona with Dr Marena Manley

## Thank you to the following sponsors

Vacutec

Cadbury's

Pioneer Foods

Bokomo

aQuellé

Distell

Sasko

Good Hope Beverages

Woolworths

Heinz

Simply Asia

SASKO Grain

Sigma Aldrich

Labotec

Liesel Van Heerden (Kleyn)

United Scientific

SAAFoST

Centrotec

Nampak

## IPSA Gold Pack Awards and the Student Gold Pack Awards

(G Sigge)



Photo

The finalists from US at the awards evening. Students Adina Bosch, Jani van Schoor, Alison Lowe, Andrea Starke, Leonie Schutte, Sunett Joubert and Theresa Beelders with Vanessa van Holdt (chairman Student Gold Pack Awards), Nampak's Kirsten Tyler (project sponsor in the Food Science & Technology category), Morongwa Themba (NAMPK), Bill Marshall (IPSA's national chairman and MC for this event) and Dr Gunnar Sigge (chairman Department of Food Science at Stellenbosch University).

During the course of 2009 the Food Science final years took part in the annual Student Gold Pack competition run by the Institute of Packaging SA (IPSA) as part of their packing course. Some excellent, creative and innovative packs were designed and submitted for examination. Seven final years were chosen as finalists and flown up to Johannesburg to attend the Awards Ceremony and Luncheon. The finalists were Theresa Beelders, Adina Bosch, Sunett Joubert, Andrea Starke, Alison Lowe, Jani van Schoor and Leonie Schutte. Packs were entered in two different categories – a dry spice pack and a nutritional beverage pack. A Judges Special Mention was awarded to Andrea Starke for her Product Concept, Theresa Beelders and Sunett Joubert each received a Merit Award in their respective categories, while Leonie Schutte and Adina Bosch were awarded Best in Project Awards. Nando's also presented prizes for the best overall packs. Leonie Schutte was awarded the Nando's Bronze, Sunett Joubert was awarded the Nando's Silver, while Adina Bosch (photo right) was awarded the Nando's Gold for the Best Overall Pack.

The awards Ceremony and Luncheon was held at the OR Tambo Southern Sun Hotel and was a truly sumptuous affair with decadent desserts! Great fun was had by all and the Department was congratulated on the high quality and creativity of our food science students. In turn – the Department is extremely proud of these young achievers!



It is better to have enough ideas for some of them to be wrong, than to be always right by having no ideas at all.  
Edward De Bono

# Dans DANCE Dans DANCE Dans DANCE Dans DANCE Dans DANCE

This year was no different, the dance was an enormous success! After a slow start on the side of the organizing committee, ideas started moving in at a rapid pace.

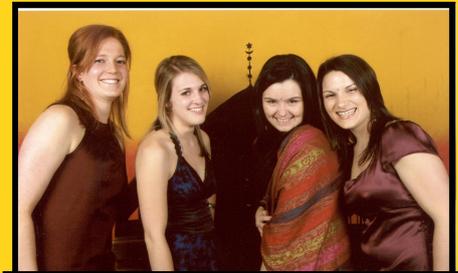
I had a few sleepless nights, but in the end these 3rd year girls were so spontaneous, creative and an absolute pleasure to work with.

With a theme like BOLLYWOOD, glitz and glam was at the order of the day and everybody looked oh so glamorous, the night of the dance.

A special thanks to all our generous sponsors namely: aQuellé, Good Hope Beverages, Cadbury's &

Diemersdal Wine Estate for their generous contributions to the DANCE.

Natasja & Arie (on the photo, right) received the price for the best dressed couple.



Cato, Evette, Ingrid & Enette

## Voedselwetenskapvereniging vir 2010 (K O'Kennedy)

In September 2009 is die nuwe Voedselwetenskap studente komitee verkies met Kim O'Kennedy (voorsitter), Jana Visser (ondervoorsitter), Enette van der Merwe (sekretaris) en Paulina Engelbrecht (tesourier). Hulle het op die 6de Oktober 'n verwelkomingsbraai vir die 1ste jaars gehou, die 12de Oktober was dit die 2de jaarsgroep se beurt vir 'n pizzadag en vir die finalejaarsafskeid op 19 Oktober het hulle 'n heerlike aand by Cubana gereël.



Foto van links na regs: Kim O'Kennedy, Enette van der Merwe, Paulina Engelbrecht, Jana Visser, die komitee vir 2010.



Personelede & na-gradse studente by die finalejaarsafskeid @ Cubana

## It is strange to be known so universally and yet be so lonely.—Albert Einstein



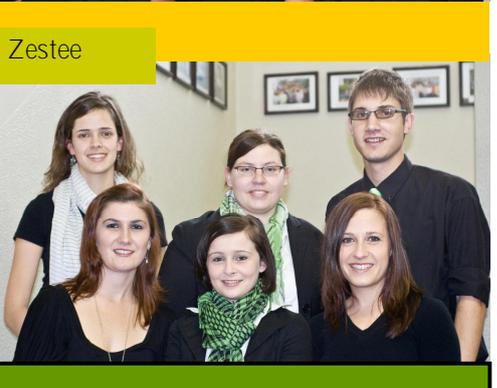
Die spanne



Endie mens wat startelle Anissa Cato Danville & Ashley



Na-gradse studente het op Maandag, 30 November in 4 spanne verdeel en so die strate van Stellenbosch aangepak op hul weergawe van 'the amazing race'. Na afloop van die resies is hulle beloon met 'n heerlike pizza @ BINNENHOF restaurant.



Produktbekendstelling  
Oktober 2009

Ostromega = Ostrich fat spread  
 Spice Slice = Omega 3 enriched fish basting  
 Kava = Imitational Kaviaar  
 Pip = Imitational Pomegranate pips  
 Zestee = Crystallized lemon  
 Pnam Bam = Roasted peanut drink



Op 8 Oktober het die vierdejaarstudente van 2009, onder die kundige leiding van Prof Trevor Britz, weereens Departement Voedselwetenskap se naam hoog gehou. Hier is die groepe en hul nuut ontwikkelde produkte. Groep 2 het die prys ontvang vir die beste produk, terwyl groep 4 aangewys is as groep met die beste voorlegging.





Monika Basson (Bemarkingsbestuurder van Die Agri-Wetenskap fakulteit) en Pieter Du Plessis (JS Gericke Bib) saam by die produk bekendstelling op 8 Oktober 2009.

# Besoekers en pryswenners 8 Oktober



Foto bo, Groep 2: Wenners van die SAAFoST prys vir die 'beste produk/produk met die meeste kommersiële potensiaal'.

Voor: Theuns Du Toit, Melanie Nieuwoudt, Jolandi Ellis, Caron van Rensburg, Jessica Garlick

Agter: Lehana Steyn, Prof TJ Britz en Morongwa Themba van SAAFoST

Foto bo, Groep 4: Wenners van die SAAFoST prys vir die 'algeheel beste produk en voorlegging'.

Voor: Julian Buyskes-Abrahams, Monique Visser, Simoné Beling, Sunett Joubert

Agter: Jeannine Neethling, Prof TJ Britz, Nikki Neethling en Morongwa Themba van SAAFoST

Twee ou bekendes by Voedselwetenskap, Mnr Dawie Basson en Mev Marianne Reeves het ook die dag met ons gedeel. (Foto regs)



Ever tried? Ever failed? No matter... Try again. Fail again. Fail better.—Samuel Beckette  
Don't wait for what you need—put in the energy to create what you need.—David Oleski

# Food Scientist MSc, tops in Agri Science Faculty!



Ilona Koch

Rector’s award for excellent achievement – Academic.

“Maties who excel in sport, culture, community interaction, service delivery, leadership and academics received the *Rector’s Award for Excellent Achievement*. The panel of selectors comprises staff of the University and members of the Students’ Representative Council (SRC).”

Ilona Koch received the award for her average of 86% over four years of undergraduate studies. Ilona achieved the highest overall mark in the Faculty of AgriScience. The awards were represented at a formal dinner at STIAS.

Currently Ilona is enrolled in a MSc in Food Science. Congratulations and keep up the good work!

It is the mark of an educated mind to be able to entertain a thought without accepting it.—Aristotle  
Efficiency is doing things right. Effectiveness is doing the right thing.—Zig Ziglar  
No masterpiece was ever created by a lazy artist.—Salvador Dali

## Amy & Armelle awarded @ SA Dairy Technology Student event (A Strydom)

Two students of the Food Science Department participated in this year’s SA Dairy Technology Student event on the 6<sup>th</sup> of October. Amy Strydom delivered a seminar on the importance of *Cronobacter sakazakii* in the dairy industry, explaining the dangers posed by this pathogen and characteristics enabling it to grow in infant formula milk. Armelle Ntsame Affane spoke about her study on the use of near infrared spectroscopy as a tool to quantify lactic acid in Kefir. Amy and Armelle won first and second prizes, respectively at this years’ event.



Photo from left to right: Amy Strydom & Armelle Ntsame Affane

## Marena & Paul attended NIR 2009 in Thailand (P Williams)

Sawatdee K hrab!, Hello!.....

Voxel (the student formerly known as Pixel) reporting back from an a-maize-ing conference and trip to Thailand.

The forum, the 14<sup>th</sup> International Conference on Near Infrared Spectroscopy coyly named NIR 2009: Breaking the Dawn, was held in the bustling capital, Krung Thep Mahanakon Amon Rattanakosin Mahinthara Yuthaya Mahadilok Phop Noppharat Ratchathani Burirom Udomratchaniwet Mahasathan Amon Phiman Awatan Sathit Sakkathattiya Witsanukam Prasit, also known as Bangkok. Festivities commenced on the 7<sup>th</sup> November with an awesome welcoming reception that involved a boat cruise on the Choa Phra Ya River while wining and dining in the hot, humid Bangkok nights.

The academic section commenced the Monday morning 08:00, yours truly was exceptionally aflutter as this was his first talk at an international conference. The paper, Tracking of

deionised water and deuterated water in wheat by NIR hyperspectral imaging, was presented and two posters by Danwille and Paulina. Overall the conference was a great success; there were lots of opportunities for networking and socialising with leading researchers in NIR or just discussing our research interests over a cup of tea. And before we knew it, dusk settled, the conference was over and we were on our way back home with lots of memories, souvenirs and pictures. Khorb khun krub Thailand!



## NIR 2009: Breaking the Dawn

(M Manley)

Apart from announcing NIR 2011, the Department of Food Science also contributed in many other ways to NIR 2009. NIR 2009 was a huge success and all credit goes to the Secretary, Sirinnapa Saranwong or Mui as she is fondly known. For Marena Manley business started Sunday, 7<sup>th</sup> November with an ICNIRS Council meeting. Marena has served as Honorary Secretary of the ICNIRS for the last 4 years. After the first Keynote and Invited speaker, Paul Williams (PhD student) was the first scientist on Monday morning to get the opportunity to present results on imaging research done at the department where the movement of conditioning water was studied. The co-authors were Gerida du Toit (MSc student), Marena Manley and Paul Geladi (SLU, Sweden). Paul's attendance of the Conference was sponsored by a grant from the ICNIRS as well as funding from the NRF (IKS funding). Marena also presented two posters on behalf of two MSc students Danwille September and Paulina Engelbrecht. Both their studies used imaging to respectively investigate the authentication of black pepper and the detection of pregermination in barley, respectively. The first day of the Conference covered mostly applications in Food and Agriculture, and Marena was invited to Chair one of the Food Sessions. Being on the Editorial Advisory Board for the Journal of Near Infrared Spectroscopy (JNIRS) Marena also had to fit in a lunch hour meeting hosted by the publisher JNIRS, Ian Michael, IM Publications, UK. Her final responsibility was as Secretary during the Annual meeting of the ICNIRS. During this meeting Marena was re-elected as Secretary for the next four years. She also gave a brief feedback on NIR 2011.

Needless to say, as always the most valuable outcome of the Conference; meeting with old friends and colleagues and establishing new collaborations!

During this meeting the host for the next meeting was announced. NIR 2013 will be hosted by France in Montpellier!



Paul Williams presenting his talk at NIR 2009.



Mui, Secretary of the hugely successful NIR 2009



Marena Manley, Chair of one of the Food Sessions with the 'time-keeper'.

## NIR 2011, Cape Town, South Africa

(M Manley)

Marena Manley recently returned from the 14<sup>th</sup> International Conference on Near Infrared Spectroscopy (14<sup>th</sup> ICNIRS or NIR 2009), Bangkok Thailand where she announced the 15<sup>th</sup> ICNIRS (NIR 2011) to be held at the CTICC in Cape Town, 13<sup>th</sup>-20<sup>th</sup> May 2011. Marena (NIR 2011 Conference Chair) announced NIR 2011 at the Conference Banquet wearing a custom-made makaraba and calling the delegates with the sound of the kudu horn (kuduzela) to follow her to Africa and specifically Cape Town for NIR 2011. She then presented the newly elected Chairman of the International Council of Near Infrared Spectroscopy (ICNIRS), Dr Pierre Dardenne from Belgium, with the makaraba and kuduzela to ensure that he has the appropriate attire for NIR 2011! She ended her presentation by showing two video clips of the beautiful landscapes Western Cape and Mpumalanga ensuring that many will follow and attend NIR 2011. For more details on NIR 2011 please contact Conference Chair: Marena Manley ([marena@nir2011.org.za](mailto:marena@nir2011.org.za)) or Conference Organiser: Deidre Cloete ([deidre@nir2011.org.za](mailto:deidre@nir2011.org.za)) or visit the NIR 2011 website at [www.nir2011.org](http://www.nir2011.org).

Marena Manley with the NIR 2011 Makaraba and Kuduzela at the NIR 2009 Banquet in Bangkok, Thailand (dress by Teresa Joubert).



Dr Pierre Dardenne accepts the NIR 2011 Makaraba and Kuduzela from Marena (right) and Marena with Prof David Wentzel from Kansas State University, USA (above).

## Gradeplegtigheid, Desember 2009

(A Lombard)

Op Dinsdag, 8 Desember 2009 is die kroon vir 'n hele paar studente gespan oor etlike jare se harde werk tydens die jaarlikse Desember gradeplegtigheid.

Departement Voedselwetenskap is trots om aan te kondig dat daar tydens hierdie geleentheid 32 BSc Voedselwetenskap grade toegeken is, waarvan een *cum laude* deur Lehana Steyn behaal is. Drie MSc in Voedselwetenskap, waarvan een *cum laude* deur Yvette le Roux. Willem Groenewald het sy PhD in Voedselwetenskap ontvang.

Hier is Prof Corli Witthuhn met 3 van haar nagraadse studente wie op 8 Desember grade gekry het.



Foto van links na regs: Dr Willem Groenewald, Prof Corli Witthuhn, Me Y le Roux & Mnr Hanson Arthur by die jaarlikse gradeplegtigheidfunksie, aangebied by Departement Voedselwetenskap

## Kersfees by Voedselwetenskap

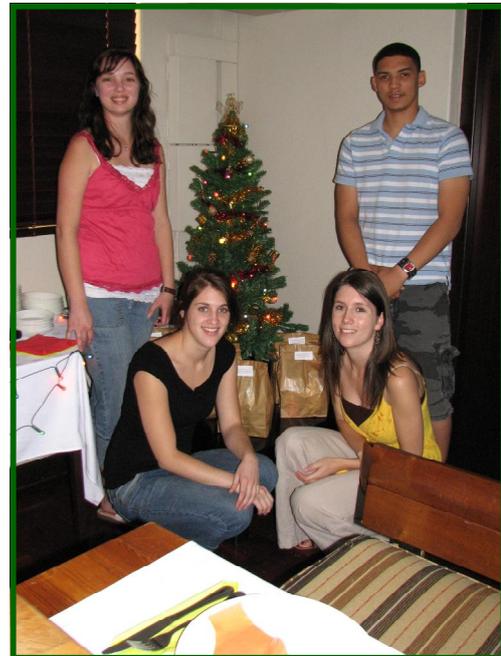
(A Lombard)

Dit is 'n jaarlikse instelling by Departement Voedselwetenskap om 'n Kerstee te hou. Hierdie jaar het ons besluit om die tee te vervang met 'n glasië koue witwyn of sap en in die plek van koek eerder 'n sosatie op die kole te gooi! Die uiteinde was die Kersbraai. Personeel en na-graadse studente van die Departement het heerlik saam gekuier om 'n braaivleisvuurtjie.

Dit is ook jaarliks 'n instelling om onder mekaar klein geskenkies uit te ruil. Hierdie jaar het ons besluit om eerder die klem te laat val op ander persone in nood. Ons het geld ingesamel, koekies gebak en saam-saam dit reggekry om 50 kerspakkies vir behoeftige bejaardes in te samel.

Ons het lekker gekuier en teruggedink oor die jaar en sy dinge ...

Geniet ook Kersfees met jul families en vriende en voorspoed vir 2010!



Paulina, Evette, Kim & Danwille by die pakkies wat hulle opgemaak het vir die behoeftige bejaardes.

The only blind person at Christmas time is he who has not Christmas in his heart. Helen Keller

## Visit to Budapest, Frankfurt & Duisburg-Essen

(GO Sigge)

At the beginning of November I embarked on a reasonably extensive trip to Europe. The first stop was Budapest, Hungary to attend the EFFoST Conference on New Challenges in Food Preservation. Apart from the privilege of hearing many top food scientists speak, I had the opportunity of meeting with several of them and discussing research collaborations and possible presentations at IUFOST 2010 in Cape Town. I presented a poster "Assessment of the microbiological quality of the Berg, Plankenburg and Eerste Rivers as irrigation sources for raw and minimally processed produce". I also had the honour of promoting the IUFOST 2010 World Congress during the Closing Ceremony of the Congress. Everyone is very eager to come to South Africa not only because of the World Cup, but also because of the World Congress. Although the prime reason for attending in Budapest was the Congress, promoting IUFOST 2010 and discussing research collaboration, I also had the opportunity of doing some sightseeing in Budapest – "the Paris of the East". Budapest is a beautiful, historic and picturesque city and luckily the weather played along on the day I had for sightseeing.

The next stop was the Food Ingredients Europe (FIE) Expo in Frankfurt, where over 1000 food ingredient suppliers exhibited their products and services in three massive exhibition halls. Just getting to Hall 8 & 9a,b from the Exhibition Centres' entrance was a trek on its own. Over 30 000 visitors attend this Expo and the exhibitors go all out to have the biggest, flashiest and best placed stands. After covering many kilometers of FIE and chatting to many ingredient suppliers about their products and exhibiting at IUFOST 2010 it was off to Duisburg for my next stop.

In Duisburg, I met with Prof Torsten Schmidt, Dr Ursula Telgheder, Prof Karl Molt, Dr Gerd Fischer and Dr Jost Wingender of the Analytical Chemistry and Microbiology Department's of the University of Duisburg-Essen. The main objective was to discuss possibilities regarding student exchanges and further research collaboration on water related topics. I also presented a lecture entitled "Water use, waste water treatment and food safety in a water scarce country" at their departmental seminar series. There was much interest in the water research we do at Stellenbosch and the prospects for further collaboration look very promising.



Photo caption: Dr Lucia Anelich (CGCSA & IUFOST Governing Council, South Africa), Luis Fernandez (Cargill & IUFOST President Elect, Argentina), Prof Geoffrey Campbell-Platt (IUFOST President, UK) and Dr Gunnar Sigge.

## Rektorstoekening vir Petro Du Buisson

(A Lombard)



Die rektor van die Universiteit van Stellenbosch gee jaarliks erkenning aan werknemers wie 'n besonderdere bydrae in hul onderskeie omgewings lewer.

Departement Voedselwetenskap is weereens bevoorreg om 'n werknemer in hierdie besondere groep van uitblinkers te hê.

Petro-Mare Du Buisson is 'n Tegniiese Beamppte by ons Departement. Sy het 'n rektorstoekening vir voortreflike diens ontvang. Haar volgehoue harde werk, inisiatief en lojaliteit aan die Departement het vir haar hierdie pluimpie in die sak besorg. Petro is tans ingeskryf vir 'n PhD in Voedselwetenskap. Baie geluk met hierdie puik prestasie!

---

## NAVORSINGSUITSETTE 2009

### EWEKNIE GEVALUEERDE TYDSKRIFARTIKELS

- Dalton, A., P. Wolmarans, R.C. Witthuhn, M.E. van Stuijvenberg, S.A. Swanevelder, C.M. Smuts. 2009. A randomised control trial on schoolchildren showed improvement in cognitive function after consuming a bread spread, containing fish-flour from a marine source. *Prostaglandins, Leukotrienes & Essential Fatty Acids* **80** 143 - 149.
- Fox G & Manley M (2009) Hardness methods for testing maize kernels: a review. *Journal of Agricultural and Food Chemistry*, *57*, 5647-5657 (DOI: 10.1021/jf900623w).
- Groenewald, W.H., P.A. Gouws and R.C. Witthuhn. 2009. Isolation, identification and typification of *Alicyclobacillus acidoterrestris* and *Alicyclobacillus acidocaldarius* strains from orchard soil and the fruit processing environment in South Africa. *Food Microbiology* **26** 71–76.
- Hoffman, LC, Mellett, FD, Muller, M, Schutte, S, McMillan, KW (2009). Physical, chemical and sensory characteristics of ostrich polony manufactured with increasing levels of olive oil. Submitted to the *Journal of Food Science August 2009.*
- Joubert E, Manley M, Maicu C & De Beer (2009) Effect of pre-drying treatments and storage on the color and composition of green honeybush (*Cyclopia subternata*) herbal tea. *Journal of Agricultural and Food Chemistry*, DOI:10.1021/jf902754b
- Joubert E, Viljoen M, De Beer D & Manley M (2009) Effect of heat on aspalathin, iso-orientin and orientin content and color of fermented rooibos (*Aspalathus linearis*) iced tea. *Journal of Agricultural and Food Chemistry*, *57* (10), 4204-4211.
- Manley M, Engelbrecht ML, Williams PC & Kidd M (2009) Assessment of variance in measurement of hectolitre mass of wheat, using equipment from different grain producing and exporting countries, *Biosystems Engineering*, *103*(2), 176-186.
- Manley M, Joubert E, Myburgh L, Lotz E & Kidd M (2009) Prediction of post-storage quality of intact clingstone peaches using pre-storage near infrared spectra. *South African Journal of Plant and Soil*, *26*(3),133-140.
- Manley M, Williams P, Nilsson D & Geladi P (2009) Near infrared hyperspectral imaging for the evaluation of endosperm texture in whole yellow maize (*Zea mays* L.) kernels. *Journal of Agricultural and Food Chemistry*, *57*(19), 8761-8769. DOI:10.1021/jf9018323.
- Nieuwoudt, HH, Bauer, FF, Muller, M, Legin, A & Rudnitskaya (2009). Instrumental measurement of bitter taste in wine: a feasibility study using electronic tongue and Fourier transform infrared spectroscopy. *Analytica Chimica Acta*: Submitted for publication January 2009.
- Ntsame Affane A, Fox GP, Sigge GO, Manley M & Britz TJ (2009) Quantitative analysis of DL-lactic acid and acetic acid in Kefir using near infrared reflectance spectroscopy. *Journal of Near Infrared Spectroscopy*, *17*(5), 255-264.
- Ntsame Affane, A.L., Fox, G.P., Sigge, G.O., Manley, M. & Britz, T.J. 2009. Quantitative analysis of DL-lactic acid and acetic acid in Kefir using near infrared reflectance spectroscopy. *Journal of Near Infrared Spectroscopy*, **17**, 255-264.
- Todorov, S.D., J.W. von Mollendorff, E. Moelich, N. Muller, R.C. Witthuhn and L.M.T. Dicks. 2009. Evaluation of potential probiotic properties of *Enterococcus mundtii*, its survival in boza and *in situ* bacteriocin production. *Food Technology and Biotechnology* **47** (2) 178 - 191.

Todorov, SD, Von Mollendorff, J, Moelich, E, Muller, N, Witthuhn; C, Dicks, LMT (2009). Evaluation of potential probiotic properties of *Enterococcus mundtii*, its survival in boza and in situ bacteriocin production. *Food Technol. Biotechnol.* **47** (2) 178 – 191.

Williams P, Geladi P, Fox G & Manley M (2009) Maize kernel hardness classification by near infrared (NIR) hyperspectral imaging and multivariate data analysis. *Analytica Chimica Acta*, 653, 121-130. DOI:10.1016/j.aca.2009.09.005. (IF:3.186)

#### POPULÊRE TYDSKRIFARTIKELS

Groenewald, W.H., Y. Smit and R.C. Witthuhn. 2009. Alicyclobacilli, fruit juice spoilage microbes in the South African processing environment (cover page article). *Fruit Processing* September/October 5/2009 222 – 228.

#### AFGEHANDELDE DOKTORALE PROEFSKRIFTE

W.H. Groenewald (2009). *Taxonomy of species of Alicyclobacillus from South African orchards and fruit concentrate manufacturing environments and the prevention of fruit juice contamination.* . Promotor: R.C. Witthuhn, Co-promotor: P.A. Gouws.

C. Lamprecht (2009). *UASB granulation enhancement by microbial inoculum selection and process induction.* Promotor: T.J. Britz, Co-promotor: R.C. Witthuhn.

#### AFGEHANDELDE MAGISTERTESISSE

G. du Toit (Near infrared (NIR) hyperspectral imaging and chemometrics for exploration and classification of whole wheat kernels)

H. Arthur (2009). *Bioactivity and microbial content of Lippia multiflora leaves, a herbal tea from Ghana.* Study leader: R.C. Witthuhn, Co-study leader: E. Joubert.

L. lipumbu (2009). Proximal evaluation and low technology processing of carob tree (*Ceratonia siliqua*) pods for production of a nutritious product for human consumption. MSc in Food Science, Stellenbosch University.

L. Bester (2009). *Detection and identification of wine spoilage microbes using PCR-based DGGE analysis.* Study leader: R.C. Witthuhn, Co-study leader: M. du Toit.

N. Manning (2009). *Physical, sensory and consumer analysis of pear genotypes among South African consumers and preference of appearance among European consumers,* MSc in Food Science. Studyleader: Dr WJ Steyn, Horticultural Sciences, SU, Co-Studyleader: M Muller, Food Science; SU; Dr I Labuschagne, Colors Fruit, Paarl

P.R. Van Eeden (2009). *Chemical, sensory and consumer analysis of cork taint in South African wines.* MSc in Food Science. Studyleader: M Muller, Food Science, SU; Co-Studyleaders: Dr HH Nieuwoudt, Dr A Tredouw, IWBT, SU; Prof T Næs, Nofima, Norway.

Y. Smit (2009). *Growth and guaiacol production of species of Alicyclobacillus isolated from the South African fruit processing environment.* Study leader: R.C. Witthuhn, Co-study leader: P. Venter.

## GENOOIDE LESINGS

- Sigge, G.O., L. lipumbu, C. Muller & T.J. Britz. 2009. Carob – food product value-adding opportunities. Carob Information Day, Western Cape Department of Agriculture, Elsenburg, 14 May 2009.
- Witthuhn, RC (2009). *Alicyclobacillus*, fruit juice spoilage microbes in the South African processing environment. SFG/IRMA Conference, Erinvale Hotel, Somerset West, 20 April 2009.
- Witthuhn, RC (2009). Women in Acadmia. Girlz just wanna have PHUN: Celebrating Women in Science, iThemba labs, Somerset West, 25 October 2009.

## INTERNASIONALE KONGRESSE

- Brand, A., Sigge, G.O. & Britz, T.J. 2009. Assessment of the microbiological quality of the upper Berg River (South Africa) as an irrigation source for raw and minimally processed produce. 15<sup>th</sup> International Symposium on Health Related Water Microbiology, Naxos, Greece, 31 May – 5 June 2009.
- Brand, A.S., Sigge, G.O. & Britz, T.J. 2009. Assessment of microbiological quality of the Berg River as a source of irrigation water for raw and minimally processed crops. EnviroWater – International Conference and Exhibition on Water in the Environment, Stellenbosch, 2-4 March 2009.
- Britz, T.J. & Sigge, G.O. 2009. Microbially polluted irrigation water: Potential impact on food safety. EnviroWater – International Conference and Exhibition on Water in the Environment, Stellenbosch, 2-4 March 2009.
- Britz, T.J., Ackermann, A. & Sigge, G.O. 2009. *Escherichia coli* survival profiles on beans, peas and tomatoes irrigated with polluted river water. 15<sup>th</sup> International Symposium on Health Related Water Microbiology, Naxos, Greece, 31 May – 5 June 2009
- Cawthorn, D.M., H.A. Steinman and R.C. Witthuhn. 2009. Establishment of a genetic database and molecular methods for the identification of South African fish species: a step towards preventing commercial fraud and promoting sustainable fisheries. EFFoST Annual Conference, Budapest, Hungary, 11-13 November 2009.
- Engelbrecht P, Manley, M, Williams PJ, Du Toit G & Geladi P (2009) Pre-germination in barley using NIR hyperspectral imaging. 14<sup>th</sup> International Conference on Near Infrared Spectroscopy, Bangkok, Thailand, 8-12 November 2009.
- Huisamen, N., Sigge, G.O. & Britz, T.J. 2009. Investigating the water quality of the Plankenburg and Eerste Rivers as irrigation sources and the impact on the food safety of fresh produce. EnviroWater – International Conference and Exhibition on Water in the Environment, Stellenbosch, 2-4 March 2009.
- Huisamen, N., Sigge, G.O. & Britz, T.J. 2009. Investigating the water quality of the Plankenburg and Eerste Rivers as irrigation sources and the subsequent impact on the quality of crops produced with the intention to be consumed in a minimally processed state. 15<sup>th</sup> International Symposium on Health Related Water Microbiology, Naxos, Greece, 31 May – 5 June 2009.
- Manley M & Geladi P (2009) Hyperspectral image analysis: all the better to 'see' with. EASIM-09 (Hyperspectral Imaging), Gembloux, Belgium, 3-4 March 2009.
- Muller, M & Calitz, F (2009): Sensory Panel Training: Reliability testing. 11th Conference of the International Biometry Society. August 2009, Kenya.

Rudnitskaya, A; Nieuwoudt, HH, Legin, A; Muller, N, Bauer, FF (2009): Instrumental measurement of bitter taste in red wine using an electronic tongue and Fourier Transform infrared spectroscopy. In *Vino Analytica Ascientia Symposium*, Anders, France, 2-4 July 2009.

September DJF, Geladi P, Nilsson D and Manley M (2009) Detection of buckwheat (*Fagopyrum esculentum*) adulterant in black pepper (*Piper nigrum L.*) by NIR reflectance spectroscopy and imaging. 14th International Conference on Near Infrared Spectroscopy, Bangkok, Thailand, 8-12 November 2009.

Todorov, S.D., B.D.G.M. Franco, R.C. Witthuhn and W.H. Holzapfel. 2009. Traditional fermented foods as a rich source of probiotic and bacteriocin producing lactic acid bacteria. *Food and Function* 2009, Pre-conference Satellite Symposium on the role of fermented food in the maintenance of health, Zinlina, Slovakia, 8 June 2009. (Keynote Lecture).

#### NASIONALE KONGRESSE

Fox GP, Manley M, Kidd M & Prinsloo T (2009) Genotype and environmental effects on hardness in maize (*Zea mays*) grown in South Africa. Combined Congress: South African Society of Crop Production; Soil Science Society of South Africa; Southern African Society for Horticultural Sciences; Southern African Weed Science Society, Stellenbosch, South Africa, 19-22 January 2009 (lecture).

Du Pisani F, Fox GP & Manley M (2009) Near infrared calibration models for South African Triticale (x *Triticosecale Wittmack*) cultivars. Combined Congress: South African Society of Crop Production; Soil Science Society of South Africa; Southern African Society for Horticultural Sciences; Southern African Weed Science Society, Stellenbosch, South Africa, 19-22 January 2009.

Williams P, Geladi P & Manley M (2009) Maize kernel hardness: can we see it? Combined Congress: South African Society of Crop Production; Soil Science Society of South Africa; Southern African Society for Horticultural Sciences; Southern African Weed Science Society, Stellenbosch, South Africa, 19-22 January 2009 (lecture).

Williams P, Geladi P & Manley M (2009) Indirect detection of *Fusarium* in maize by NIR hyperspectral imaging. Combined Congress: South African Society of Crop Production; Soil Science Society of South Africa; Southern African Society for Horticultural Sciences; Southern African Weed Science Society, Stellenbosch, South Africa, 19-22 January 2009.

Du Toit G, Geladi P & Manley M (2009) Diffusion of conditioning water in single wheat kernels: experimental design and evaluation by NIR hyperspectral imaging. Combined Congress: South African Society of Crop Production; Soil Science Society of South Africa; Southern African Society for Horticultural Sciences; Southern African Weed Science Society, Stellenbosch, South Africa, 19-22 January 2009.

Du Toit G, Geladi P & Manley M (2009) Wheat kernel hardness determined by near infrared hyperspectral imaging. Combined Congress: South African Society of Crop Production; Soil Science Society of South Africa; Southern African Society for Horticultural Sciences; Southern African Weed Science Society, Stellenbosch, South Africa, 19-22 January 2009 (lecture).

## Make a donation towards Food Science.....and make a difference!

A 1985 graduate from the Department of Food Science, Liesel van Heerden (Kleyn) recently made a much appreciated financial contribution towards our Department. Thank you Liesel!

Maybe you are a MATIE Food Science Alumni who wants to make a personal contribution towards research, let us know!

Title \_\_\_\_\_ Initials \_\_\_\_\_ Postal Address \_\_\_\_\_

Surname \_\_\_\_\_

Maiden Name \_\_\_\_\_ Telephone(home) \_\_\_\_\_

Date of birth \_\_\_\_\_ Telephone(office) \_\_\_\_\_

Student or ID-number \_\_\_\_\_ E-mail address \_\_\_\_\_

Please remember to let us know when/if you make a donation towards the Department.

Please tick the appropriate box:  my donation is unconditional

My donation must be applied towards \_\_\_\_\_

Single contribution: my contribution is: \_\_\_\_\_

(cheque payable to Stellenbosch University, included herewith)

Payment options:

Please complete and fax the form to Stellenbosch University for reference purposes:

For attention Joan Weyers, Stellenbosch Foundation, Private Bag X1, MATIELAND, 7602

Fax: 021-8083026

Please remember to use the following reference for bank transfers and cheque deposits:

**Donasie 0484**

Donations can also be made by direct bank deposits: Please remember the reference.

RSA: Stellenbosch University

Standard Bank

Stellenbosch Branch 050610 (code)

Account number: 073006955 (conditional) - which means the money will be available to Food Science only.

Voedselwetenskap Departement/Department of Food Science

C/o Hammanshand- & Helshoogte Roads

Private Bag/Privaatsak X1

Universiteit Stellenbosch University

MATIELAND

7602

Tel: ++27(21) 8083578

[www.sun.ac.za/foodsci](http://www.sun.ac.za/foodsci)