

## The year that was 2011....



....was definitely a very exciting one, with many highlights and a few frustrations. But, I think when we all sit down over the Festive Season and reflect on the year that was 2011, we will remember it fondly as a year of growth, renewal, productivity, creativity, perseverance, hope, enthusiasm and above all, team-work!

There have been many highlights in 2011, but none of these would have been possible without a dedicated and fantastically "together" staff – all believing and working to the success of the Department – literally through thick and thin (it did get pretty thick with dust, regularly).

For me the highlight of this year has been watching the metamorphosis of the building-site into the beautiful finished building that now adorns the c/o Hammanshand and Helshoogte roads (more about the building later).

This year again saw undergraduate and postgraduate numbers which 10 years ago, we would never have believed – 145 undergraduates and 49 postgraduates (30 Masters and 19 PhD's). If all goes well 29 students should graduate with BSc Food Science degrees, 9 with MSc Food Science degrees and 3-4 with PhD's in Food Science at the December and March graduations. Eight or nine new MSc and 3-4 new PhD students will enroll in 2012.

This year again saw many students excelling academically – something we have come to expect from our students – but congratulations are, nevertheless, in order to all of them (see details elsewhere). The fourth years again out did themselves in this year's Product Development projects – which again received great accolades from all attending (again, more details elsewhere).

On the staff side – we are extremely happy to welcome Chisala Ng'andwe as a full-time, permanent staff member as of 1 November 2011. Chisala has been doing a sterling job over the last two years in setting up an excellent Food Chemistry module for the fourth years. Feriesa September joined the staff as of 28 November 2011 – she will only work afternoons and will assist in keeping the new facilities in sparkling condition! We look forward to Feriesa's contribution to the Department. Two staff members also excelled and received Rectors Awards for Outstanding Service and Performance – congratulations to Prof Trevor Britz and Petro du Buisson, who thoroughly deserved their awards.

Ek wil almal 'n geseënde Kersfees toewens en baie sukses vir 2012!

Dr Gunnar Sigge, Departementele voorsitter Voedselwetenskap



# Produkontwikkeling Oktober 2011



Michelle, Bianca, Melanie, Barendina & Alex



POP Art



Update



Prize winners for most commercially viable product, Update  
Natasjha, Lizanne, Otilie, Zulu & Karo



Maxine, Altie, Roger, Mari & Candice

Mom's Secret



Yum-Yams

Best overall product & Presentation: Yum-Yams



Tshepiso, Anri, Nandi, Georgie & Izanne



Muzomuhle, Madelize, Marco, Haesatou & Wayne



MooMeringues

## IPSA Student Goldpack Awards – Food Science and Technology Category

Stellenbosch University fourth year Food Science Packaging students were awarded again this year for their creativity and scientific writing skills as part of the Institute of Packaging South Africa (IPSA) Gold-pack student awards. The students had the opportunity to design packaging for the fermented products they developed during the first semester's product development module. The five finalists were Roger Warren, Altie Burger, Nandi Strachen, Anri Bester and Mari du Bruyn. The Gold Award (R7000) was presented by Mr Johan Visser, General Manager, Nampak (sponsor of the Food Science and Technology category) to Altie Burger. Mari du Bruyn won the Silver Award (R2900) and Anri Bester the Bronze Award (R2300). Nandi Strachen received a judges' special mention (R500) for a pack which creates an engaging consumption experience. Congratulations to all!



From left to right: Altie Burger, Mari du Bruyn, Roger Warren, Prof Marena Manley lecturer for the module, Nandi Strachen & Anri Bester.

Altie Burger was the overall winner. Here she is with Dr Gunnar Sigge from Food Science.



## Prysuitdeling 13 OKTOBER 2011

KITTY SIMMONS-PRYS: R250.00

Sarah Erasmus

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.

BESSIE RETIEF-PRYS: R250.00

Maxine Jones

Jaarliks aan 'n finalejaar-BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie in die module Sensoriese Analise

MIMSIE SMIT-PRYS: R500.00

Maxine Jones

Jaarliks aan 'n finalejaar-BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie in die module Voedselwetenskap 344, Plantaardige Voedselprodukte.

NONNA RABIE-PRYS: R1 800.00

Magriet Muller

Jaarliks aan 'n tweedejaar-BSc Voedselwetenskapstudent vir die beste akademiese prestasie behaal in sy eerste studiejaar vir alle modules.

DEPARTEMENT VOEDSELWETENSKAP-PRYS: R500.00

Fiona Rolstone

Jaarliks aan 'n derdejaar-BSc Voedselwetenskapstudent. Betrokkenheid by en algehele belangstelling in Voedselwetenskap as studierigting.

JEANNE-MARIE VAN DER POEL-PRYS: R1 400.00

Tshepiso Mokhoro

This prize is awarded annually to a final year BSc Food Science student for involvement in and general interest in Food Science as a course of study.

Correction does much, but encouragement does more...

Johann Wolfgang van Goethe



Innovation is the creation of the new or the re-arranging of the old in a new way.

Michael Vance

Optimism is the faith that leads to achievement. Nothing can be done without hope and confidence.

Helen Keller

MATTIE JOOSTE (Voorgraads)-PRYS: R4 000

Melanie Pitout

Jaarliks aan 'n finalejaar BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie oor die eerste drie studiejare vir alle modules.

MATTIE JOOSTE (Nagraads)-PRYS: R6 000.00

Carien Roets

Jaarliks aan 'n afgestudeerde MSc (Voedselwetenskap)-student met die beste nagraadse akademiese prestasie.

SASKO-PRYS: R9 000.00

Sarah Erasmus

Oorhandig deur: Mnr David Howard (sien foto)

Jaarliks aan 'n derdejaar-BSc Voedselwetenskapstudent met die hoogste gemiddelde persentasie oor die eerste twee studiejare vir alle modules.

Suid-Afrikaanse Vereniging vir Suiweltegnologie

Melanie Pitout

Finalejaar student met die hoogste gemiddelde persentasie in eerste drie studiejare vir alle Voedselwetenskapmodules.



Congratulations!



Foto links: Sarah Erasmus ontvang die SASKO prys by Mnr David Howard.

Foto bo: Sarah Erasmus, Gunnar Sigge & Fiona Rolstone



Vlnr: Pryswenners 2011 saam met Prof TJ Britz, R Warren, A Bester, M De Bruyn, M Jones, M Pitout, T Mokhorro, N Strachan, A Burger, Dr G Sigge, C Roets



**DEKKER  
PAPENDORF**  
ARCHITECTS

[www.dparc.co.za](http://www.dparc.co.za)



The new building



The architects, Piet Dekker & Johann Papendorf



Photo from left to right: Vanessa Smit (Davis Langdon), Gunnar Sigge (US), Andries van Niekerk (Van der Sluys), Johann Papendorf (Dekker Papendorf) & Jan Rabie (Davis Langdon)



From left to right: Gunnar Sigge (US), Stephen Olckers(4emConsulting), Andries van Nierkerk (Isipani)

Great things are done by a series of small things brought together.

Vincent van Gogh



*Teamwork builds Quality*



Food Micro lab



and the foyer, before &amp; after...



## The nearly completed, new Food Science building

GO Sigge

As the construction and renovation works near completion, it is time to reflect on all that has been added to the Department in the last 12 months. The contractors were supposed to be off site already, but we have fortunately been able to add several renovations to the project, which were not originally included in the project due to budget constraints. We are thrilled by all the “extras” which have been added back onto the project – and we would like to thank the contractors, the quantity surveyors and US Facilities Management for making all the “extras” possible. The “extras” are mainly renovations in the existing building and include new vinyl floors in several labs, painting of several labs & offices, upgrading the passages and stairs, refurbishing the toilets, new floors in the pilot plant, a new undergraduate computer room, a newly refurbished extension to our product development lab and several other small renovations. All of which will serve to make the “feel” of the Department very new! So the contractors will be with us for another few weeks, but we are more than happy to see all the extras – and they’re not that bad to have around.

A special word of thanks has to go to the Professional Team involved in this project – all of whom went out of their way to make sure we got the best possible solutions to all our needs. It has been a pleasure working with all of them and most of us will in some ways be sad to see the project reaching completion and saying “good bye” to them. The Professional Team includes the architects (Johann Papendorf and Piet Dekker from Dekker Papendorf Architects), Jacques du Plessis (Mechanical) and Stephen Olckers (Electrical) from 4em Consulting Engineers, Willem Smit & Mercia Cronje (Sippel & De Lange), the Quantity Surveyors and Principle Agent from Davis Langdon (Sam Kelbrick, Jan Rabie, Vanessa Smit & David Byrnes) and last, but not least Andries van Niekerk and Grant Roberston (Isipani Construction). A BIG Thanks to all of you – your passion, commitment, professionalism and quality of work is visible for all to see when they enter our magnificent new building!

The main ingredient of stardom is the rest of the team—John Wooden

## Food Science Dance 2011

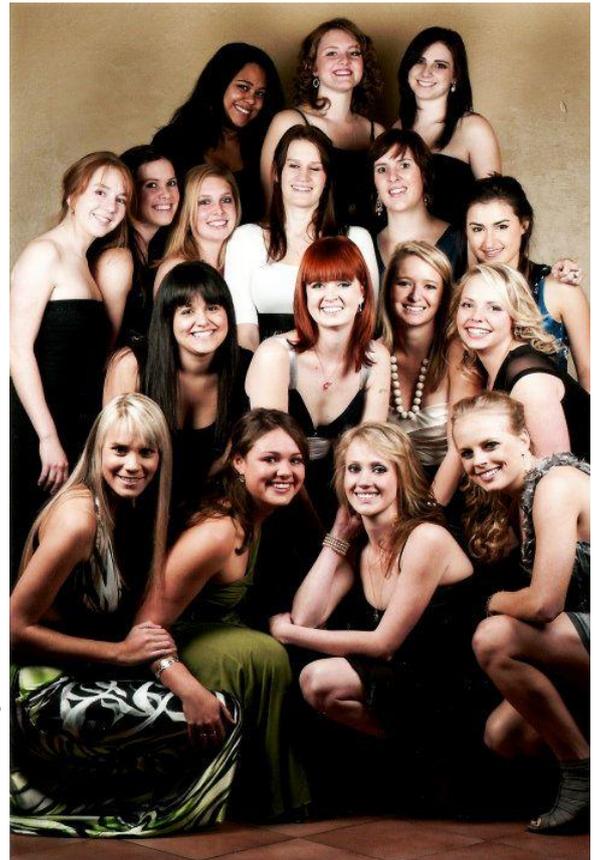
On the 28th of July the 3rd year students hosted a very successful Food Science Dance at Skilpadvlei wine Estate. This is always the highlight of the Department's annual social calendar.

This year was no different and with a theme like '**Cluedo**' the murder mystery game, we knew we had a very creative bunch of 3rd year students.

**The Department of Food Science would like to thank the following sponsors for their generous contribution to the 2011 DANCE.**



- Stellenbosch **SPUR** for 5 x R50 Vouchers
- Simonsrust **STEERS** for 6 X R50 Vouchers
- **Celebrate** for 2 x 2 Cocktails
- **Vida** for 3 x R50 Vouchers
- **Pano's** for 6 x R50 Vouchers
- **1802 Restaurant** for 1 x Cake & Coffee
- **Dipped** for 1 x burger & soda
- **Kodak** for 2 x R50 Vouchers
- **Jan Catz** for 1 night's stay for 2 people sharing
- **Binnenhof** for 1 x R100 Voucher
- **Kairos Simonsrust Biltong** shop for gift basket
- **Steph** for 1 x ottoman
- **Mug & Bean** for 3 Vouchers
- **Cape Town Fish Market** for 10 x R135 Vouchers
- **Ster Kinekor**
- **5 on Ryneveldt Restaurant** for Vouchers
- **EJ Langer Photography**



### Voedselwetenskapvereniging

Die vereniging het weereens in 2011 hul merk duidelik gemaak ....

Daar was die verwelkomingsbraai, pizzadag, finalejaars- en nagraadse afskeidsfunksies asook die Kerstee.

So tussen die talle sosiale bedrywighede en reëlings dien hul ook as belangrike skakel tussen die personeel en studente van Department Voedselwetenskap.

Baie dankie aan die komitee van 2011 vir jul harde werk.

Foto links: Nagraadse afskeidsfunksie

## First year seminars

Yet again our first year students wowed us with the high quality of their seminars on processed food products. Topics covered almost all types of foods. Falafel, artificial sweeteners, mead and sherbet were some of the more 'out-there' topics that were discussed, along with basic staples such as wheat flour, sugar and bread.

There were two category prizes allocated to the presenters: the first was for best overall seminar (highest marks); and the second was the best liked presentation (chosen by the class). Carla Vernooy won the prize for best overall seminar for her interesting, well-researched presentation on Soy sauce, while Uriel Filiba won the vote of his fellow classmates for his very informative and entertaining seminar on Halva, a Mediterranean sweet. This year each winner received a goody-bag from Bokomo and since the winners were announced at the last lecture of the year, it was just in time to help alleviate exam stress.



From left to right  
Uriel Filiba, Prof Marena Manley & Carla Vernooy

## Permanent appointment



Chisala Ng'andwe who has been lecturing the Food Science 488 (Food Chemistry) course since the beginning of 2010 in a Temporary Lecturer's position has now joined the staff on a permanent position. The appointment became effective on the 1<sup>st</sup> November 2011 – and means that the Food Chemistry course that Chisala has re-designed and re-aligned to add more value to our fourth year curriculum is here to stay for quite some time. We welcome Chisala into his new position and are confident that he will continue to enjoy his time in the Department.

## Ruth Carter Stapleton

Christmas is most truly Christmas when we celebrate it by giving the light of love to those who need it most.



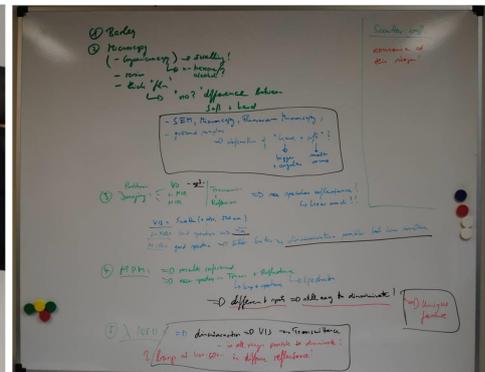
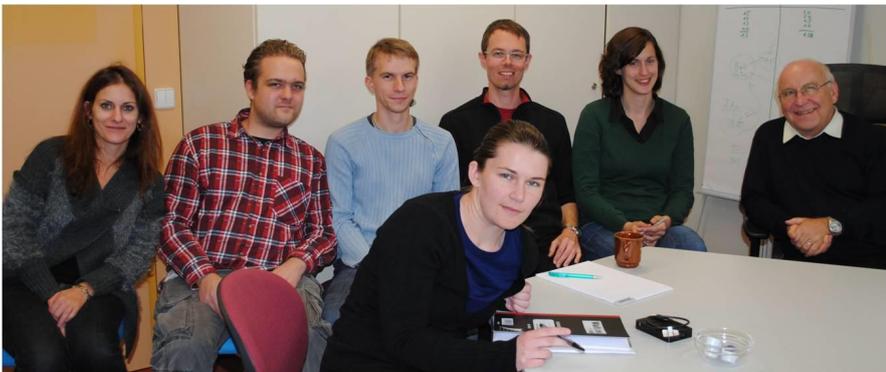
Die studente, personeel en 'vriende van Voedselwetenskap' het vanjaar weer saamgespan & 13 pragtige kersgeskenke vir minderbevoordekte kinders bymekaar gemaak.

Baie dankie vir elkeen se bydrae om minstens 1 kind 'n gelukkiger Kersfees te gee.



## Vibrational Spectroscopy at Reutlingen University, Reutlingen, Germany

A recent visit by Dr Cushla McGoverin and Prof Marena Manley to the vibrational spectroscopy laboratories of Prof Rudolf Kessler at Reutlingen University, Reutlingen, Germany (7-11 November) generated many new research ideas and possibilities for collaboration. During the visit Prof Kessler generously provided access to all instrumentation within the laboratories, as well as the expertise of his research team. It was possible to collect transmission-based near infrared (NIR) hyperspectral images of hard, intermediate and soft maize kernels. The samples were also analysed using pushbroom reflectance imaging, microspectroscopy and standard bulk measurements in the visible, short wave NIR and NIR electromagnetic regions. In addition, microtome slices of maize kernels for conventional and fluorescence microscopies were investigated. Discussions with Prof Kessler about characterisation of maize hardness and especially the use of vibrational spectroscopy techniques to study the problem were invaluable. This work will be continued with in collaboration with Prof Kessler in a PhD study in 2012. A sincere thank you goes to Rudolf, his wife Waltraud, and his team for their efforts and hospitality.



Prof Rudolf Kessler (right) with his research team and Dr Cushla McGoverin in front.

The outcomes of the week's efforts!

## Another visit to Adelaide, Australia for Prof Marena Manley

For a second year in row Prof Marena Manley visited Adelaide, Australia. This time she was invited to present a talk on NIR hyperspectral imaging at the 15th Australian Barley Technical Symposium (18-21 September 2011). It was a privilege to be part of this symposium which, in spite of being a local symposium, is acknowledged as being one of the best barley meetings in the world. Marena's talk on 'Barley characterisation with near infrared hyperspectral imaging' was well received by the audience and already resulted in a collaborative project with the University of Tasmania.



Sightseeing in Adelaide



My surprise trip to Trieste, Italy

GO Sigge

Earlier this year, towards the end of August, I was contacted by the General Manager of ICS-UNIDO and invited to serve on the Scientific Committee of this institution. After listening to what they do, I agreed, and was promptly asked whether I would be free to attend the first meeting on the 29<sup>th</sup> and 30<sup>th</sup> September. Before I knew it, I was on a plane to Trieste, Italy to be part of this Scientific Committee for the next three years!

The International Centre for Science and High Technology (ICS-UNIDO) operates within the legal framework of the United Nations Industrial Development Organization (UNIDO), in Trieste (Italy) and is financially supported by the Italian Ministry of Foreign Affairs.

[The International Scientific Committee](#) reviews the overall programme of ICS from the scientific point of view and makes comments and recommendations to be submitted for approval by the UNIDO Director-General. The International Scientific Committee reflects the relevant scientific disciplines and includes an adequate number of qualified scientists and technologists from developing countries and from the host country.

Two very busy days were spent at ICS-UNIDO together with colleagues from Brazil, Italy, Netherlands and Ghana, discussing issues of food security, food safety, renewable energy and value added chemicals from biomass. There was only a very short time to see some sights of Trieste (see photo), but hopefully next time I will get to visit the Illy Coffee factory and Illy Foundation.

For more information on the activities and Fellowships offered by the ICS-UNIDO visit the webpage at <http://www.ics.trieste.it>



## Cushla on her way to USA

For the last two and a bit years Cushla has been working in the Cereal Quality and Near infrared Spectroscopy research group. Her research has primarily involved the use of near infrared hyperspectral imaging for the analysis of maize hardness and the detection of pre-germination in several types of grain.

During her 2 year stay from New Zealand she received numerous research and traveling grants. She made an enormous contribution to her research group.

Sadly all good things comes to an end and on the 17 th of December when Cushla and Daniel will fly out of South Africa to go to their next postdoctoral fellowships in the USA. Cushla will be starting a new project at Temple University in Philadelphia, Pennsylvania, using near infrared spectroscopy to study cartilage mimics. Daniel will spend the next two years at the Smithsonian Institution National Museum of Natural History in Washington D.C. studying fossil feathers and birds. They have both enjoyed their time here immensely and wish to thank you all for making it such an enriching experience. Kia kaha. Haere ra.

She will be using the email address [cushla.mcgoverin@gmail.com](mailto:cushla.mcgoverin@gmail.com) in future.

We wish you all of the best and thank you for your huge contribution to the Department!

A few words from her peers to describe her...

Wise beyond her years, friendly, always willing to help, hard-working.

Precise in her doings, barmhartige samaritaan, great sense of humour!

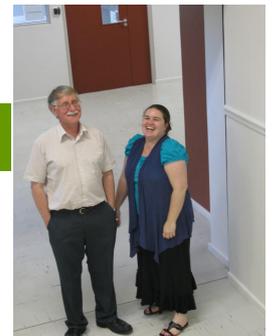
She is a fast & hard worker, always with a smile, ready to assist—gives valuable advice

Pro-active!  
Down to earth....

## Rektorstoekennings 2011

Prof Trevor Britz en Me Petro Du Buisson is vanjaar vir hul harde werk en besondere bydrae, wat tot die sukses van Departement Voedselwetenskap gelei het, vereer.

Hulle het onderskeidelik rektorstoekennings ontvang vir voortreflike navorsing en diens. Baie geluk met hierdie prestasie, ons is trots op julle!



## 4 Newly appointed Professors Extraordinaire @ Food Science

We would like to welcome & congratulate (from left to right), Prof Paul Geladi, Prof Tormod Næs, associated Profs Lucia Anelich & Glen Fox as our latest extraordinaire appointments at Food Science.

They are a very impressive combinations and we are extremely proud to be associated with them. We are looking forward to a very fruitful working relationship.





## Gradeplegtigheid Desember 2011

Die volgende grade is toegeken op 8 Desember 2011, baie geluk!

Ons beste wense vergesel julle. Mag daar 'n blink toekoms in Voedselwetenskap op elkeen wag.

BSc in Voedselwetenskap (23)

MSc in Voedselwetenskap(Cum Laude)

Lizanne Basson

Ingrid Bester

Anri Bester

Theresa Beelders

Karo Bester

Altie Burger

Helena Cloete

PhD in Voedselwetenskap

Barendine Cronje

Donna Cawthorn

Mari De Bruyn

Coleen Leygonie

Ottillie de Kock

Petri Horn

Maxine Jones

Kasoki Kahindo

Natasha Krog

Candice Lötter

Tsepiso Mokhorro

Melanie Pitout

Michelle Prodehl

Marco Romanis

Alex Schulze

Muzomuhle Sikhakhane

Nandi Strachan

Riana Theart

Georgie Uys

Roger Warren



### New Sponsors

The Department would like to thank Orley Foods for their financial contribution towards improving the teaching and learning facilities for undergraduate students. This money will be put to good use in the new building to further optimise the teaching environment.

We would also like to thank Aquabella Natural Spring Water for their sponsorship of water. Guests and visitors to the Department will now be able to enjoy this still and sparkling water.

**AQUABELLA**  
Natural Spring Water

The Department of Food Science would like to say a big THANK YOU to the following sponsors & providers of research funding for their loyal support during 2011

Research Funders

BOKOMO

WRC/WNK (Water Research commission)

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Tegnologie

Sponsors

BOKOMO

Nampak

Orley Foods

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From the Food Science 2011 team...

May you have a  
Merry Christmas,  
restful holidays  
&  
a super 2012!

