



Desember 2012

# Voedselwetenskap *nuus*

## *From the Chairman's office ...*

Another year has rushed by and it is once again time for everyone to take a well-deserved break and re-charge their batteries, as I'm sure 2013 will be no different.

The past year has been another busy year at the department, fortunately without building operations. It has been a pleasure expanding into the new wing of the building and the renovations and additions have definitely added value – as well as visibility.

This year saw yet another increase in food science's popularity as a career with 65 first year students. It looks as though there will be another bumper crop of first year's in 2013, with registrations probably at the similar levels to this year. In total there were 156 undergraduate students registered in 2012 as well as 48 postgraduate students, 14 of which were PhD students. Postgraduate numbers for 2013 will again be around the 50 mark – quite remarkable for a department of 5 academics. This brings us to the good news, that the academic staff will be expanded in 2013 with the arrival of Dr Wasseela Verachia. This appointment and increase in the academic staff will not only add value to the existing degree programme, but will increase the department's research and postgraduate capacity.

On behalf of all the staff at the Department of Food Science, I would like to wish you all a very peaceful holiday and best wishes for 2013.



# Top presteerders deur die Rektor vereer



Foto van links na regs: Prof Louise Warnich, Sarah Erasmus & Prof Arnold Schoonwinkel



Foto van links na regs: Theresa Beelders en Prof Arnold Schoonwinkel

Die Universiteit Stellenbosch het op Dinsdag, 16 Oktober 2012 erkenning gegee aan sy topstudeerders by die jaarlikse Rektorstoekennings vir Uitnemende Prestasie wat by die Wallenberg Navorsingsentrum by die Stellenbosse Instituut vir Gevorderde Navorsing (STIAS) gehou is. By die geleentheid is Maties wat uitblink in die akademie, op sportgebied, kultuurbeoefening en wat betref gemeenskapsinteraksie, dienslewering en leierskap, met dié toekennings vereer.

Sarah Erasmus en Theresa Beelders van die Departement Voedselwetenskap het beide erkenning gekry vir hulle uitmuntende prestasies op akademiese gebied. Me Erasmus se gemiddelde punte behaal tydens haar voorgaande studiejare, val onder die top 3 in die Natuurwetenskap Fakulteit. Theresa Beelders het die US-medalje vir TOP Magister student ontvang. Dit is voorwaar 'n baie groot prestasie, baie geluk!

## 2010 Food Science graduate in development team of an award winning new product

Magda Strydom, a 2010 Food Science graduate is working at a leading Product development company in Cape Town. She loves the challenge to combine her technical knowledge in a creative way. As a product developer her main task is to develop trendy food products, sourcing new ingredients and packaging materials, liaising with clients and spotting new trends in the food industry. Although a career in product development is quite challenging, it surely is exciting as well and Magda says that her degree in Food Science prepared her well for the task at hand.

Woolworths contacted the company she's working for a while ago to develop a new range of innovative products. Magda worked together with Tracy Foulkes in the development of the award winning DIY jelly. The product can be bought in selective Woolworths stores.

This is the perfect new product to try out this coming festive season...





# Sensory research at SU

*Sensory studies* continue to play an important role in research and industry. These studies are crucial for understanding the relation between food properties on the one side and human liking and buying behaviour on the other side. *Sensometrics*, the statistical analysis of sensory data, consumer liking data and relation between them is also going from strength to strength, especially internationally.

For the past five years the Department of Food Science, Stellenbosch University has invested in furthering *sensometrics* as field of research, i.e. quality control of sensory panel data; interpretation of sensory panel and consumer liking data and linking consumer liking data to intrinsic and extrinsic product attributes. To enhance *sensometrics* as field of research we have recently appointed Prof. Tormod Næs of Nofima, Norway as extraordinary professor in our department. He has a PhD in Statistics from the University of Oslo and his experience covers both method development and applications within a number of areas; the most important being spectroscopy, process optimisation, product development and sensory science. In November 2012 Tormod Næs gave a 2-day seminar here at SU on multivariate statistics and the application thereof in sensory science. The seminar was attended by more than 40 post-graduate students and researchers from our department, as well as food scientists currently working in industry. During this seminar Dr Oliver Tomic, also from Nofima, gave a demonstration of *PanelCheck*, a specialist software programme that visualises performance of assessors and sensory panels.

At Food Science, SU we have a state-of-the-art sensory research facility with 14 sensory booths fitted with *Compusense five*® software. This research tool which is ideal for panelist training, calibration and performance management of trained panels, has enabled us to conduct extensive research in sensory profiling, as well as to develop sensory wheels for a number of agricultural commodities. The most recent example of this is the development of sensory wheel for rooibos, as well as for honeybush. This research was conducted in collaboration with the ARC Infruitec-Nietvoorbij, Stellenbosch and has enabled us to introduce valuable quality control and communication tools to the South African herbal tea industry. These types of tools are particularly relevant in the case of new international markets where rooibos and honeybush teas are not well-known and where it is important to be able to describe a product in terms of specific sensory attributes. We are indebted to the National Research Foundation (NRF), South African rooibos Council (SARC) and Department of Science and Technology for funding the research of rooibos and honeybush.



**Photo top:** Nina Muller from SU was the first person to introduce Sensometrics to students at the Food Science Department. From humble beginnings Nina managed to build this division into a well oiled machine providing a very valuable service to both under graduate and post graduate students as well as the Food Industry. (Honeybush Sensory wheel in the background).



**Photo left:** Tormod Næs, Professor of Statistics at University of Copenhagen & senior scientist at Nofima, Norway.



**Photo right:** Oliver Tomic, Nofima, Norway.



The 2<sup>nd</sup> African-European Conference on Chemometrics was recently hosted in Stellenbosch. Dr Therina Theron, Senior Director: Research and Innovation, Stellenbosch University opened the conference on 20<sup>th</sup> November 2012 at the Wallenburg Research Centre @ Stias. Achim Kohler and Harald Martens, together with the scientific committee, put together a very successful and exciting scientific programme. Delegates from 12 different countries presented at the conference and we were privileged to have 13 prominent chemometricians taking part as invited speakers. On the 19<sup>th</sup> November 2012 Beata Walczak, Poland and Federico Marini, Italy presented a short course on Multivariate classification methods.

We thank all who contributed to making AFRODATA 2012 a huge success and a special word of thanks to all our sponsors. The prizes for the best oral and poster presentations by students were sponsored by Shell and received by Deborah Weighill, IWBT, Stellenbosch University and Dickson Omucheni, University of Nairobi, Kenya.

We are looking forward to the next Afrodata conference, where chemometricians will continue to face new challenges and present new methods of analysing large data sets; remembering the words of Harald Martens: "Reality can speak for itself. But it is up to us scientists to ask questions, and then to shut up and listen. To ask for repetition of old myths is not science. We must test our hypotheses critically. But even that is not enough. We must also invite reality to come out and surprise us. Our motive (for the AFRODATA meeting series) is to stimulate a humble, but aggressive scientific culture, built on a sincere, ambitious, self-critical curiosity and a love of truth."

The 3<sup>rd</sup> African European Conference on Chemometrics (AFRODATA 2014) will be held in Nairobi, Kenya.

*Marena Manley*  
Conference Chair



**Photo from left to right:** Prof Marena Manley (Conference Chair), Prof Harald Martens (Nofima, Norway) and Dr Therina Theron, Stellenbosch University.



Prof Marena Manley with Dr Philippe Ricoux, Shell, France, one of the AFRODATA 2012 sponsors at the Conference Dinner at Van Ryn's Distilleries.





## IFT Strategic Retreat in Reston

G Sigge

In early November (7 – 9) I had the pleasure of being invited to take part in the Institute of Food Technologists (IFT) Strategic Retreat in Reston, Virginia in the USA.

The objective of the Retreat was to build on IFT's commitment to their four strategic goals which support their mission of ensuring a safe and abundant food supply for healthier people everywhere. IFT Board of Directors, student leaders, staff and a small group of international IFT members were invited to take part in a Strategic Planning exercise to look into a variety of global factors impacting food science and technology, the food industry, global food security and the impact of water on all of these.

Apart from very interesting presentations, insights and planning, the trip also provided the opportunity of making contacts with several academics in the USA, some of whom are world renowned food scientists and authors of several of the textbooks regularly used in the teaching environment.



Dr Gunnar Sigge on his visit to Virginia, USA with the rest of the members of the IFT Strategic Retreat in Reston







Winners of the SAAFoST prize for the Product with best commercial potential



Group 1: Steph Bosman, Karla van Zyl, Lara Alexander, Carla Weightman & Pam Masters with *Rockin' Rolls*



Winners of the SAAFoST Prize for the best product & presentation

Group 2: Nicole Jurgens, Fiona Rolstone, Kirsty Giddey, Lene Erasmus & Wendy Buys with *Crunchy Clouds*



Group 3: Marlise Stalmans, Bert-Louw Versveld, Estia Bekker, Franco Marais, Nicola Laurie & Sarah Erasmus with *Klein Karoo Krisps*



Group 4: Rushaan Ruiters, Percy Sibande, Rhydwyn Solomons, Nadine Hennig & Pumi Shange with *Frootioca*





# PRYS-OORHANDIGING OP 11 OKTOBER 2012

Die volgende pryse is na afloop van die Produktbekendstellings oorhandig deur Dr Gunnar Sigge

**1. KITTY SIMMONS-PRYS R300**

**Letitia Schoeman**

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. BESSIE RETIEF-PRYS R300**

**Sarah Erasmus**

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

**3. MIMSIE SMIT-PRYS R750**

**Sarah Erasmus**

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

**4. NONNA RABIE-PRYS R2500**

**Janie Van Deventer**

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

**5. DEPARTEMENT VOEDSELWETENSKAP-PRYS R500**

**Claire Kirkby**

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

**6. JEANNE MARIE VAN DER POEL-PRYS R2 000**

**Rushaan Ruiters**

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

**7. MATTIE JOOSTE (Voorgaads)-PRYS R5 200**

**Sarah Erasmus**

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

**8. MATTIE JOOSTE (Nagraads)-PRYS R7 800**

**Adina Bosch**

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

**9. SASKO-PRYS R11 000**

**Magriet Muller**

Oorhandig deur: Mnr Arrie Wessels

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

**Reeds ontvang**

**Suid-Afrikaanse Vereniging vir Suiweltegnologie**

**Sarah Erasmus**

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



And the 2012 winners are.....

Mnr Arrie Wessels van SASKO oorhandig  
Die R11 000 prys, geborg deur SASKO  
aan Magriet Muller



Adina Bosch: wenner van die Mattie Jooste  
Jooste Nagraadse prys ter waarde van  
R7800



Sarah Erasmus was die wenner van die  
Bessie Retief-, Mimsie Smit- en Mattie  
Jooste (voorgraadse) pryse



Rushaan Ruiters het die R2000 Jeannemarie  
van der Poel prys ontvang.



**Congratulations to all our worthy  
prize winners.**

**A special word of thank you to all the  
donators & sponsors.**

Janie van Deventer het die R2500 Nonna  
Rabie prys ontvang



Claire Kirkby was die wenner van die  
Department Voedselwetenskap prys





# The social page ...

SAAFoST Quiz evening



Final year farewell



Third year dance '12



2012

## IPSA Goldpack Awards



**Photo's from left to right:**

Food Science Category Finalist - Nampak - Johan Visser presenting to Pamela Masters (Stellenbosch University)

Nampak Bronze Award - Food Science Category - Johan Visser presenting to Kirsten Giddey (Stellenbosch University)

Nampak Silver Award - Food Science Category - Johan Visser presenting to Stephanie Bosman (Stellenbosch University)



**Photo left:**

Johan Visser (Nampak) ; Sarah Erasmus (SU) & Kirsten Tyler (Nampak)

Sarah Erasmus was the winner of the 'Nampak Gold award & Trophy' for the Food Science Category



Rushaan Ruiters Feris (photo right), 2012 Food Science Final year student gave birth to a beautiful, healthy, 3.7kg baby girl, Asiyah Feris literally days after the product presentations for Food Science 478 and hours before she had to write her final examination. She managed both with great success. Well done & congratulations!





# Paul Williams

highlights of a PhD final year



2012 has been a busy year for Paul Williams. In May he entered a competition hosted by Stellenbosch University namely NEW VOICES in SCIENCE. He could choose between writing a popular science article or presenting a popular science talk. Paul chose to enter both sides of the competition and after the initial rounds became a finalist.

The aim of the competition in the first place is to promote the importance of science and to create an awareness of the influence of science on our lives. The presenters presented to an audience that did not specifically have any knowledge about the particular topics. Professor Russel Botman believes that science communication creates a scientifically literate society, which is crucial to respond effectively to the challenges and opportunities we face. As envisaged by the university's HOPE project, it holds scientists accountable and ensures that science is always employed in the service of society.

Although Paul did not win this competition he really did us proud. To be named one of only 24 'new voices in science' is an accomplishment in its own right. According to the Rector the one thing that *New Voices in Science* has taught us is that this ability to communicate their sciences is absolutely within the reach of all researchers. Click on the link below for more information on the content of Paul's presentation.

Paul also went to Sweden from 2-23 September 2012 to do the last of his data analysis for his PhD thesis under the watchful eye of Professor Paul Geladi at the University of Umeå, Umeå, Sweden.

From 12-14 September he attended a spectral imaging conference in Latvia where he presented an oral presentation on 'NIR Hyperspectral Imaging: a tool for microbial studies'.

Now it is December 2012, a year went by in a flash and his thesis was handed in and is ready to be sent off by courier to his external examiners. It is the end of an era for Paul here at the Food Science Department, but I'm sure we will still hear a lot about this young voice in science in future.

<http://blogs.sun.ac.za/news/2012/12/06/su-researchers-help-keep-food-safe-and-healthy/>



Nog nuus...

Veronique Human & Daleen Du Preez is in 2012 met rektorstoekennings vir voortreflike dienslewering vereer. Baie geluk met jul prestasie!



# Graduation 2012 GRADEPLEGTIGHEID

During the December 2012 graduation ceremony 21 BSc Food Science degrees were rewarded of which 2 CUM LAUDE.  
Six students received their MSc degrees of which 3 CUM LAUDE .

Two PhD's graduated.

Congratulations to all students & their study leaders.

## BACCALAUREUS IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP ( BSc Voedselwetenskap )

### BACHELOR OF SCIENCE IN FOOD SCIENCE ( BSc Food Science )

1. ALEXANDER, Lara (Voedselwetenskap met Chemie)
2. BEKKER, Estia (Voedselwetenskap met Biochemie)
3. DE KOCK, Michelle (Voedselwetenskap met Chemie)
4. ERASMUS, Lene Mari (Voedselwetenskap met Biochemie)
5. GIDDEY, Kirsten Francis (Voedselwetenskap met Biochemie)
6. HENNIG, Nadine (Voedselwetenskap met Chemie)
7. JORDAAN, Wayne Wenzel (Voedselwetenskap met Biochemie)
8. JURGENS, Nicole (Voedselwetenskap met Biochemie)
9. KATTUKKANAL, Maria Roy (Voedselwetenskap met Biochemie)
10. LAURIE, Nicola Francine (Voedselwetenskap met Biochemie)
11. MARAIS, Charl Jacobus Francois (Voedselwetenskap met Biochemie)
12. MASTERS, Pamela Kate (Voedselwetenskap met Chemie)
13. ROLSTONE, Fiona Frances (Voedselwetenskap met Biochemie)
14. RUITERS, Rushaan (Voedselwetenskap met Biochemie)
15. SHANGE, Nompumelelo Benedicta (Voedselwetenskap met Biochemie)
16. SIBANDA, Phetolo Perseverence (Voedselwetenskap met Chemie)
17. STALMANS, Marlise Dorothea (Voedselwetenskap met Chemie)
18. VERSFELD, Bert-Louw (Voedselwetenskap met Biochemie)
19. WEIGHTMAN, Carla Jayne (Voedselwetenskap met Biochemie)



## BACCALAUREUS IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP CUM LAUDE ( BSc Voedselwetenskap CUM LAUDE )

### BACHELOR OF SCIENCE IN FOOD SCIENCE CUM LAUDE ( BSc Food Science CUM LAUDE )

1. BOSMAN, Stephanie Cesa (Voedselwetenskap met Chemie)
2. ERASMUS, Sarah Wilhelmina (Voedselwetenskap met Chemie)

## MAGISTER IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP ( MSc Voedselwetenskap )

### MASTER OF SCIENCE IN FOOD SCIENCE ( MSc Food Science )

1. HANEKOM, Evette
2. MATARE, Tsaurayi Edwin
3. O'GRADY, Lizanne

## MAGISTER IN DIE NATUURWETENSKAPPE IN VOEDSELWETENSKAP CUM LAUDE ( MSc VoedselwetenskapCUM LAUDE )

### MASTER OF SCIENCE IN FOOD SCIENCE CUM LAUDE ( MSc Food Science CUM LAUDE )

1. CARINUS, Anneri
2. MUNHUWEYI, Karen
3. NEETHLING, Jeannine

## DOKTOR IN DIE WYSBEGEERTE (VOEDSELWETENSKAP) ( PhD Voedselwetenskap )

### DOCTOR OF PHILOSOPHY (FOOD SCIENCE) ( PhD Food Science )

1. BRAND, Amanda Salome
2. VAN DER MERWE, Johanna Debora





**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 2012.**

### **Research Funders**

BOKOMO

WRC/WNK (Water Research commission)

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NRF

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Stellenbosch University

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Suid-Afrikaanse Vereniging vir Suiweltegnologie

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South African Rooibos Council (SARC)

Department of Science and Technology

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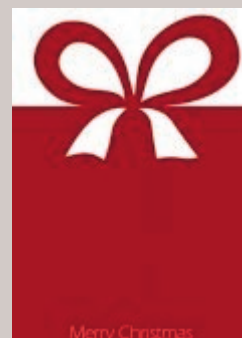
Nampak

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# Kersfees 2012 Christmas

Die Departement Voedselwetenskap in samewerking met vriende & familie kon weer vanjaar die vreugde van Kersfees aan persone in minderbevoorregte gemeenskappe bring. 50 pakkies is bymekaar gemaak. Op Dinsdag, 11 Desember kon ons 32 van die pakkies uitdeel by die jaarlikse Kersete wat die VG Kerk van Cloetesville vir 'n plaaslike Voedingsaksie aanbied. Die res van die pakkies word onder behoeftige bejaardes wat deur Azaleahof geïdentifiseer is, in Stellenbosch versprei. Baie dankie aan elkeen se ruim bydrae om hierdie projek moontlik te maak! Daar is 'n spreekwoord wat sê dat die wie vreugde aan ander bring, dit nie van hulself kan weerhou nie. Mag die vrede en vreugde van Kersfees met elkeen van julle en jul geliefdes wees.

