



Ou bekende, nuut aan die stuur by Voedselwetenskap



Dr Gunnar Sigge het geen bekendstelling in die Voedselwetenskapkringe nodig nie.

Hy het reeds in 1992 sy BSc graad in Voedselwetenskap hier op Stellenbosch verwerf. Daarna het 'n MSc (1997) en 'n PhD in 2005 gevolg.

Gunnar is in 1993 as Tegniese Beampte by die Departement aangestel en in 2005 is hy bevorder tot Lektor.

Benewens sy verpligte as voorgraadse dosent het hy ook 'n baie uitgebreide navorsingsportefeuilje.

Hy is hoofsaaklik betrokke by navorsing in "Volhoubare water gebruik in die voedselindustrie". Sy navorsingsgroep ondersoek onder ander die behandeling van voedselprosesseringsvloeisel deur van

anaerobe biologiese stelsels gebruik te maak. Voedselveiligheidsaspekte oor die gebruik van besoedelde water vir besproeiing van vars vrugte en groente word ook bestudeer.

Gunnar is ook 'n bekende gesig by SAVVoT, waar hy sedert 1997 op die Kaapse-tak komitee dien. Vanaf 1999 dien hy op die Nasionale SAVVoT Raad. In 2007 is hy verkies tot *President Elect* en in 2010 sal hy die Presidentskap oorneem by die gekombineerde 2-jaarlikse IUFoST/SAVVoT kongres wat in Kaapstad aangebied word. Hy is verder hoof van die *Scientific Programme Committee* vir die IUFoST Wêreldkongres wat in 2010 plaasvind.

Sedert Maart 2009 is Gunnar aangestel as waarnemende voorsitter by die Departement Voedselwetenskap.

Met die heersende wêreldwye ekonomiese krisis en vele ander uitdagings, is 2009 sekerlik nie die maklikste tyd om die Voorsitterstoel oor te neem nie, maar met sy vaardighede en passie vir die vakgebied is ons vol vertroue dat Voedselwetenskap by die Universiteit van Stellenbosch net van krag tot krag sal groei en steeds sal uitstaan as leier in die opleiding van top gehalte voedselwetenskaplikes.

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We're on the web
www.sun.ac.za/foodsci

Beurse toegeken in 2009

AgriTrain Beurs:

Gaynor Olivier

SAAFoST FoodBev Seta Beurs:

Paulina Engelbrecht

Amanda Brand

Cato Steyn

Gaynor Olivier

Jana Visser

SAAFoST Beurse:

Aubrey Parsons Study Grant: Lehana Steyn

Academic Achievement Award: Ilona Koch

SAVST Beurs:

Lehana Steyn

SAMPRO Beurs:

Amy Strydom

Simone Beling

Die Voorsitter van SAMPRO, Melt Loubser, en Gerhard Venter, SAMPRO, het onlangs die Departement besoek om die SAMPRO Beurshouers te ontmoet.



Agter v.l.n.r:

Amanda Brand (FoodBev Seta Beurs); Dr Gunnar Sigge (Voorsitter, Departement Voedselwetenskap); Mnr Melt Loubser (Voorsitter SAMPRO, CEO Fair Cape).

Voor v.l.n.r:

Lehana Steyn (SAVST – Suid-Afrikaanse Vereniging vir Suiweltegnologie Merietebeurs); Amy Strydom (SAMPRO Beurs); Mnr Gerhard Venter (SAMPRO Bestuurder: Opleiding); Gaynor Olivier (FoodBev Seta Beurs); Simone Beling (SAMPRO Beurs).



Gerida & Paulina besoek Swede

Vanaf 10 tot 22 Mei 2009 was Gerida du Toit en Paulina Engelbrecht in Swede.



Gerida besig met Beeldanalises



Paulina Engelbrecht en Gerida du Toit op Damplein in Amsterdam

Hul besoek is deel van 'n samewerkingsooreenkoms tussen US en die Sweedse Universiteit van Landbou Wetenskappe in Umeå, Swede. Hierdie twee MSc studente van Dr Marena Manley het Hiperspektrale Beeldanalise navorsing gedoen op grane by hierdie Universiteit se Biomassa Tegnologie en Chemie Eenheid onder toesig van Prof Paul Geladi.



Waar hulle was ...

Oppad terug na Suid-Afrika het hulle 'n draai gaan maak in Holland vir 'n klein blaaskansie.

42 Food Science degrees awarded in December 2008/March 2009

A total of 42 Food Science degrees were awarded at the end of the 2008 academic year, which included graduates for Dec '08 and March '09.

The Department of Food Science is very proud of each of these graduates and wishes them well in their endeavors!

December 2008

BSc in Food Science

ABRAHAMS, Lynne
BASSON, Shantelle
BESTER, Ingrid
BEZUIDENHOUT, Regina
BOTES, Marnelle
BURGER, Rehan
CALITZ, Joanie
CONRADIE, Gwendoline
CROUS, Mignon
EARLY, Holly
ENGELBRECHT, Paulina
GREEFF, Elizma
HENDRICKS, Ashley
KIKINE, Tshepo
MALHERBE, Marcel
MULLER, Marlize
NIEUWOUDT, Gretha
ROUX, Evette
ROUX, Lise-Marié
STEYN, Cató
STEYN, Naomi
STRYDOM, Amy
VAN DER MERWE, Enette
VISSER, Jana

March 2009

BSc in Food Science

DE KOCK, Liezl
EUSTICE, Robyn
NIEMANN, Nadia
SEPTEMBER, Danville
VAN DER WESTHUIZEN, Schalk

MSc in Food Science

BESTER, Linka
DU PISANI, Frances
MANNING, Nicola
SCHNETLER, Demona
TSANIGAB, Solomon
VAN EEDEN, Petrus

MSc in Food Science *CUM LAUDE*

ROETS, Carien
WILLIAMS, Paul

PhD in Food Science

LAMPRECHT, Corné

BSc in Food Science *CUM LAUDE*

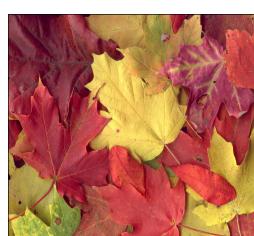
KOCH, Ilona

MSc in Food Science

IIPUMBU, Lukas
LOMBARD, Matthys

MSc in Food Science *CUM LAUDE*

VILJOEN, Melvi



Winter is an etching, spring a watercolor,
summer an oil painting and autumn a mosaic
of them all..

Stanley Horowitz



Sensory Science Research at SU

The current challenges facing the Food Industry are progressively transforming Sensory Science in such a way that it plays a more proactive role, i.e. generating new product ideas based on unique sensory properties or unique consumer segments identified through sensory behaviour. Sensory analysis can therefore be regarded as a critical component of research and development within food manufacturing companies.

In 2005 the Department of Food Science, SU invested in a new sensory research facility. This research facility is primarily used for basic research in the field of sensory perception of food and food components. However, the facility also provides scientific and technical services to the South African food and beverage industry.

This facility at SU has focused on collaborative post-graduate research with amongst other the Institute of Wine Biotechnology, SU (Dr Hélène Nieuwoudt; Dr Andreas Tredoux), Animal Sciences, SU (Prof Louw Hoffman); Horticultural Science, SU (Dr Wiehahn Steyn) and the ARC Infruitec-Nietvoorbij, Stellenbosch (Prof Lizette Joubert & Dr Dalene de Beer). There is also collaboration with Prof Tormod Næs at Nofima, a research institute in Norway. Current MSc in Food Science research projects include the following:

- Chemical, sensory and consumer analysis of cork taint in South African wines (Petrus van Eeden: Completed studies March 2009);
- Physical, sensory and consumer analysis of pear genotypes among South African consumers and preference of appearance among European consumers (Nicola Manning: Completed research March 2009);
- Chemical and sensory investigation of Brett character in selected South African red wines (Janita Botha will complete studies end 2009).
- Fruit quality traits related to consumer appeal in apple breeding families (Anreza van der Merwe will complete studies in 2009);
- Chemical and sensory characterisation of Rooibos for export and quality control purposes (Ilona Koch will complete studies in 2010);
- Stability of quality parameters of a red-fleshed plum beverage (Naomi Steyn will complete studies in 2010);
- The effect of rind and soy protein on the chemical and sensory quality of comminuted meat products (Crispin Mapanda will complete studies in 2010).

Nina Muller: mm7@sun.ac.za



Pictures, from left to right:

1. Le-Daan Rousseau with the Sensory team: Nina Muller; Bonnie van Wyk; Erika Moelich & John Achilles
2. Erika performing Sensory tests on Abalone
3. Bonnie, John & Erika in the Sensory Lab with Le-Daan Rousseau, MSc Aqua Culture student, doing his study on different feeds for Abalone
4. Erika performing INSTRON compression tests on Abalone samples

Quotes from kids on Chemistry & Biology

- There are 26 vitamins in all, but some of the letters are not yet to be discovered. Finding them all means living forever.
- Some oxygen molecules help fires burn, while others help make water, so sometimes it's brother against brother.
- To most people solutions mean finding the answer, but to chemists solutions are things that are still all mixed up.

Glen Fox, Aussie turned South African for a few months



Dr Glen Fox joined us in May 2008 and spent a year as a postdoctoral fellow in the Near Infrared and Cereal Science Laboratory of Dr Marena Manley. Glen, being from Australia, was our first postdoc from abroad. During his time at the Department he developed a Particle Size Index (PSI) method for measuring maize hardness and also published a review article on Maize Hardness Testing Methods during this time. In addition, Glen acted as co-supervisor for some of the MSc students working on NIR and Cereal Science. Glen's postdoctoral fellowship was funded by Stellenbosch University (Subcommittee B), the National Research Foundation (NRF), as well as the Maize Trust.

Glen has since returned to Australia where he is a Senior Research Scientist and co-coordinator of the Queensland Grains Research Laboratory, Toowoomba.

When Glen joined the Department of Food Science about a year ago, few of us realized that he would become such a big part of our lives in such a short time. Glen managed to do quite a bit of traveling (from the West Coast, Cape Peninsula, Winelands up to the Drakensberg.) He truly managed to experience a whole lot more than a normal tourist and that was due to the fact that he got involved in more than one way. Glen even took up cycling and managed to finish one of the most grueling Pick 'n Pay ARGUS cycle tours in history..... which he will be back for at the beginning of 2010.

During the last week of his stay we celebrated with him at a traditional SA braai with lamb chops, pap and sauce. At the end of his stay he started counting the days to go home ... So, I guess, that although he made the most of his time here, it was time to go home to AUSSIE land! We wish him well for the future.

Food Product Development at Food Science

As the final training before qualifying for the degree BSc in Food Science, final-year students in the Department of Food Science at the University of Stellenbosch have to develop innovative food products. The students have to complete the whole new product development process from developing a concept: identifying a niche in the buyer's market where the product can compete; writing product specifications; developing a stable and safe product including production and processing details; determining shelf-life; applying nutritional and allergy specifications; developing suitable packaging and even outlining likely marketing strategies. This year the 36 final-year students took part in creating fermented products ranging from:

- Chou (Asian inspired fermented vegetable product);
- Beet-It (fermented vegetarian chickpea based beetroot spread);
- Appil Pop (non-alcoholic apple cider effervescent tablet);
- Pinaze (sweet-sour pinotage glaze from fermented Pinotage grapes);
- Kepi-licous (cold dessert from fermented Kefir as main ingredient);
- Peakasso (a smooth flavoured “cream-cheese”-like Vegan spread) .

To encourage innovative new ideas:

The Western Cape Branch of SAAFOST kindly sponsored a prize for the “best overall project and presentation”; and

Mrs Truida Prekel of SynNovation awarded a prize for the most innovative product.

Photo 1: The SAAFOST prize for the “best overall project and presentation” was awarded to Pinaze (sweet-sour pinotage glaze from fermented Pinotage grapes). The team members were Simone Beling, Sunett Joubert, Petri Horn, Wena Gie, Wilmari Pretorius and Lindi van Niekerk.



Photo 1



Photo 2

Photo 2: The SynNovation prize for the “most innovative idea” was awarded to Appil Pop (Non-alcoholic apple cider effervescent pill). The team members were Maurenique Greyling, Romy Muller, Xander Grier, Gretha Geldenhuys, Gaynor Olivier and Anneri van Blommestein.

‘The most successful people are those who are good at Plan B’

James Yorke

‘Innovation is the ability to see change as an opportunity, not a threat’ —Unknown

Departement Voedselwetenskap: Gasheer vir MATIES Wiskunde- en Wetenskapweek

Op Maandag, 30 Maart, en Woendag, 1 April, het 'n totaal van 75 leerders van Hoërskool Bloemhof die Departement besoek om deel te neem aan werkswinkels as deel van die Universiteit se MATIES Wiskunde- en Wetenskapweek. Die leerders het onder andere sensoriese analises op drie verskillende soorte roomys uitgevoer en het maaskaas gemaak. Die leerders het positiewe terugvoer gelewer en het veral die maaskaas maak-en-proe sessie terdeë geniet. Ilze Wright, 'n onderwyseres wie die werkswinkel op Woendagoggend bygewoon het, het die volgende opmerking gemaak, "Van al die aanbiedinge wat ons tydens hierdie week bygewoon het, was dié Departement se aanbieding die beste, want julle het dit lekker gemaak vir die leerders en het met hulle gepraat en nie oor hulle koppe asof hulle Graad 4 is nie". Sy het ook die volgende kommentaar *via epos* aan Petro en Natasja gestuur:

Baie, baie dankie vir die wonderlike aanbieding en bemarking van jul Departement Voedselwetenskap. Dit was vir die kinders die hoogtepunt van die Wetenskapweek, sowel as ons Science Unlimited. Ek en Maritha het dit self vreeslik geniet en dit het vir my weer 'n deeltjie oopgemaak waarin ek baie belangstel. Julle organisasie en aanbieding was puik.

Weer dankie vir jul moete.

Ilze (Hoërskool Bloemhof)



Ilze Wright en leerders van Hoërskool Bloemhof tydens die MATIES Wiskunde- & Wetenskapweek



PhD student awarded

Paul James Williams, PhD student at the Food Science Department, was awarded the Best Student Presentation, Omnia Nutriology Merit Award, at the Combined Congress at Stellenbosch University from 19-22 January 2009. This was the annual conference of the South African Society of Crop Production, Soil Science Society of South Africa, Southern African Society for Horticultural Sciences and the Southern African Weed Science Society. Paul received his MSc Food Science degree *CUM LAUDE* in March 2009 and is currently busy with his PhD studies.



On the Photograph from left to right, those who attended the Congress

Paul Williams (PhD in Food Science, US), Kim O'Kennedy (MSc in Food Science, US), Dr Glen Fox (visiting Post-Doc from Australia), Gerida Du Toit (MSc in Food Science, US) & Allison Burgers (visiting MSc in Food Science from Iowa State University). The Stellenbosch students are currently working under the expert guidance of Dr Marena Manley.

Glen Fox & Allison Burgers have worked on numerous projects with Dr Manley and have since returned home.

Van Voorsitter tot Vise-Dekaan, AgriWeten-skappe... ons eie Prof. Corli Witthuhn...



Prof. Corli Witthuhn het in 1999 'n pos as Lektor by die Departement Voedselwetenskap aanvaar en is in 2003 tot Senior Lektor bevorder. In 2005 het sy vir 'n jaar as Waarnemende Departementele Voorsitter gedien en het vanaf 2006 tot Februarie 2009 die rol van Departementele Voorsitter permanent vervul. Vroeër vanjaar is sy as nuwe Vise-Dekaan van die Fakulteit AgriWetenskappe, waar sy betrokke is by die strategiese beplanning vir die verskeie departemente wat deel vorm van dié fakulteit, aangestel.

Die Departement Voedselwetenskap is trots op alles wat Corli tot dusver vermag het en wens haar alles van die beste toe. Ons glo dat haar positiewe gesindheid haar nog ver sal



Autumn & Winter in Stellenbosch



bring.



Collaborative research with Nofima, a prominent food research institute in Norway

In June 2009 Prof Tormod Næs presented *ConsumerCheck*, a new international sensory science research project here at Stellenbosch University to the food and wine industry. He also presented a seminar on *Segmentation methodology of sensory and consumer data*.

ConsumerCheck is a four-year research project undertaken by Næs and it will concentrate on developing a software package using state-of the-art statistical methods to ultimately indicate the drivers of liking, i.e. the effect of sensory properties on consumer liking, as well as aspects such as purchasing probability, health, packaging, etc. The Department of Food Science and the Institute of Wine Biotechnology, University of Stellenbosch have been invited to be part of this international project.

This project will focus on using existing advanced statistical techniques such as *Preference Mapping* and *Conjoint Analysis*, but will also aim to develop new software technology to combine these two important methods, i.e. software to ultimately identify the main drivers of "liking" for consumer products.

Norwegian companies in the dairy, wine, food and retail industries have already invested heavily in the European division of the research project. It is hoped that similar interest will be engendered in South Africa. Ultimately this project will see international collaboration and workshops, with the research network between Nofima and Stellenbosch University set to benefit local parties as there will be ongoing contact between researchers here and Nofima. Collaboration will not only result in new software technology, but also concrete problem solving for the industrial partners!

Nina Muller:



Prof Tormod Næs



Greece 2009



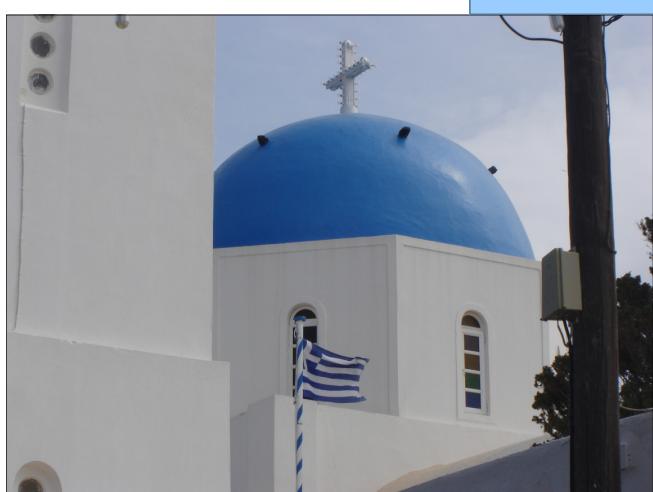
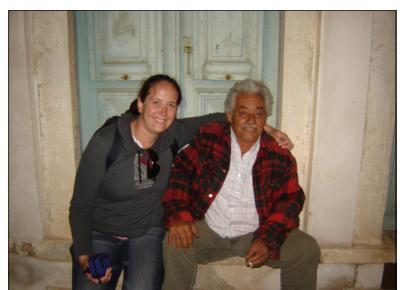
15th International Symposium of Health-related Water Microbiology

The Symposium was held at Naxos, Greece from

31 May—5 June 2009

and was attended by Prof Trevor Britz, Dr Gunnar Sigge, Amanda Brand & Nicola Huisamen.

They enjoyed the experience immensely and returned back to South Africa full of inspiration for



Prof Karl Molt from the University of Duisburg-Essen @ EnviroWater conference

A very successful second EnviroWater conference was held in Stellenbosch from 2-4 March 2009. The conference was a joint effort between researchers at the University of Duisburg-Essen, Germany and Dr Gunnar Sigge at the Department of Food Science, SU. Approximately 80 delegates from mainly Germany and South Africa, presented papers and posters on topical water related issues. Further collaboration between the University of Duisburg-Essen and Stellenbosch University is also being put in place to strengthen water related research at Stellenbosch.

As a spin-off of the EnviroWater conference, Prof Karl Molt of the University of Duisburg-Essen presented a short course on the use of the software "R" to the postgraduate students of the Near Infrared Spectroscopy lab at the Department.



Prof Karl Molt with the NIR research group: Jana Visser; Paul Williams; Paulina Engelbrecht; Evette Roux; Armelle Ntsame Affane and Danville September.



Karob powder

Karob pods

Karobdag @ Elsenburg

Op 14 Mei 2009 is 'n Karobinligtingsdag gehou by die Wes-Kaapse Departement Landbou op Elsenburg. Dit was 'n samevatting van navorsing wat reeds gedoen is op Karob in Suid Afrika deur die Departement Landbou en Departement Voedselwetenskap. Dr Gunnar Sigge het 'n lesing aangebied oor die navorsing wat gedoen is oor die voedingswaarde van karob en die moontlike gebruik daarvan in 'n reeks verskillende produkte soos ontbytkosse, nageregte, melkskommels, gebak en brood. Karob word dikwels as 'n alternatief vir kakao gebruik omdat dit geen kaffeïen, thiobromien of oksalsuur bevat nie.



Karob pods



Karob mousse



Karob tree

I didn't fight my way to the top of the food chain to be a vegetarian. **Unknown**

Eerstejaar Voedselwetenskapstudent ontvang Rektorstoekenning



Karo Bester is tydens 'n glansgeleentheid by Neethlingshof wynlandgoed op 4 Maart 2009 aangewys as een van die Universiteit se top presterende eerstejaarstudente vir 2008.

Genoemde toekenning maak deel uit van die inisiatiewe van die Eerstejaarsakademie om erkenning aan toppresterende eerstejaarstudente te gee.

Daar word beoog om tydens hierdie spoggeleentheid erkenning te gee aan die prestasies van die student en ook die rol wat die dosent in hierdie prestasie speel, te beklemtoon.

Dit was dus 'n groot eer wat Karo Bester te beurt gevall het en ons is baie trots op haar. Baie geluk met hierdie reuse prestasie en sterkte met jou toekomstige studies.



EnviroWater 2009

Prof Karl Molt with some of the 80 delegates attending the Envirowater 2009 Conference outside Stellenbosch.

Scientists make beautiful brides & brides to be...

Congratulations & many happy years together!



Marijke & Pierre



Debora & Prieur



Yvette & Henrico



Monique & André



Franci & Craig



Lise-Marie & Johan



Juanita Lamprecht, daughter of Corné & Stiaan born on the 3rd of Jan '09

Natasja steeds in die nuus.....

Sy kan dit nou maar eenmaal nie help nie, sy bly in die nuus!

Hierdie keer is ons trots om te sê dat Dr Natasja Brown sedert Januarie 2009 aangestel is as lid van die Sentrale Dissiplinêre Komitee (SDK) van Stellenbosch Universiteit. Lede van die SDK word deur die Vise-Rektor Gemeenskapsinteraksie & Personeel aangestel. Alle dissiplinêre sake dien voor die SDK.



Daar is egter nog 'n rede vir Natasja om die nuusbrief te haal en dit is die blye nuus dat sy en Arrie Arends ('n welbekende en geliefde hier by Voedselwetenskap) besluit het om verloof te raak op 16 Mei '09. Baie geluk met die groot besluit en ons hoop dat julle lank en gelukkig saam sal wees.