

PALL Food and Beverage

**Formula
Foods**

ORICA
CHEMNET



Food Elements

Putting the pieces together

NZIFST Conference 2009
Christchurch Convention Centre
23-25 June 2009

ABSTRACTS HANDBOOK

3:45 PM	<p>C5 Discrimination of freeze-dried and plunger-ground coffees, using SIFT-MS and multivariate statistical methods David Paterson*, Brett Davis, Vaughan S. Langford</p>	<p>Relatines Abr Fazlyana Mohtar*, Conrad Herrera, Siew-Young Quek, Allan Eastoe*</p>	<p>E6 Effects of different drying processes and storage conditions on the carotenoids and antioxidant properties of Gac fruit powder Tuyen C. Kha*, Minh Nguyen, Paul D. Roach</p>	<p>NZIFST Dairy Division Annual General Meeting 3:45 PM (all divisional members are requested to attend) (Room: 687 upstairs)</p>
4:00 PM	Afternoon Health Break (Exhibition Hall C)			
4:30 PM	<p>Session G: Food Safety (Chair: Phil Blaney) (Room: Plenary Hall B) SPONSORED BY: ASUREQUALITY</p> <p>G1 Development of a risk based approach for regulation of raw milk products in New Zealand Scott Crear*, Dianne Schumacher, Sally Hasel</p>	<p>Session H: Food Properties (Chair: Marie Wong) (Room: 1 & 2 upstairs)</p> <p>H1 Predicting food thermophysical properties from composition data Don J. Cleland*, Jianfeng Wang, Mike F. North, James K. Carson</p>	<p>Session J: Food Chemistry (Chair: Winnie Harvey) (Room: 4&5 upstairs)</p> <p>J1** Evaluating the antioxidants in black and green teas Claire L.C. Suen*, Siew-Young Quek, Glen Ryan, Laurence Eyles</p>	<p>Session K: Food and Consumers (Chair: Nazimah Hamid) (Room: 687 upstairs)</p> <p>K1 Coupling observed and stated purchasing behaviour: importance and willingness to pay for sparkling wine attributes Andreas Becker, Giuseppe Nocella*, Giovanna Plattella</p>
4:45 PM	<p>G2 Evaluation of cleaning procedures for allergen control in a food industry environment Xin Wang, Owen A. Young*, Dennis Karl</p>	<p>H2 Measuring the particle size of glucose crystals in honey. Georg Ripberger, A.H.J. Paterson*</p>	<p>J2 Rheological properties of hydrocolloid gels in fresh fruit juice and water Jing Zhou*, Szu-Ya Wang, Dongxiao Sun, Waterhouse</p>	<p>K2 NZFAVA: Increasing fruit and vegetable consumption for all New Zealanders Carolyne E. Lister*, Jennifer Yee Collinson, Megan Woods, Aselle Adaim, Julie Dick, Sue Pollard</p>
5:00 PM	<p>G3 Validating cleaning programs and process controls to minimize risks of food allergen presence. P. David Lowry*</p>	<p>H3 Using immunofluorescence microscopy to localise pieces of the fibre puzzle Bronwen G. Smith*, Heather A. Free, Sophie J. Kindleysides, Tommy H.L. Ho, Adrian P. Turner, Paul W. Suberland, Roswitha Schröder, Laurence D. Melton</p>	<p>J3 Broccoli juice – colour and compositional changes during conventional thermal processing Claire T. Redman*, Marie Wong, Erin O'Donoghue, Lee Huffman</p>	<p>K3 How organic is organic? Can we tell? Karyne M. Rogers*</p>
5:15 PM	<p>G4 Natural toxins in food Paul S. McNabb*, Andy I. Selwood, Rael van Griekel, Patrick T. Holland, Lesley Rhodes, Rex Munday</p>	<p>H4 Food structure studies using variable pressure scanning electron microscopy Eryony J. James*</p>	<p>J4 Eating Kiwifruit: A key to healthy digestion Lovedeep Kaur*, Shane M. Rutherford, Mike J. Boland & Paul J. Moughan</p>	<p>**K4 Mastication of peanuts embedded in different food matrices: a pilot study Scott C. Hutchings*, Kylie D. Foster, John E. Bronlund, Roger G. Lentle, C. Sun, Jim R. Jones, Marco P. Morgenstern</p>
5:30 PM	<p>G5 The benefits of HACCP for catering micro-businesses Kevin Kane*</p>	<p>H5 Effect of particle sizes on the functional properties of pumpkin (<i>Cucurbita maxima</i>) flour Mat A. Amiza*, Khalil S. Kamarudin, Amir I. Zamri, Norrizel I</p>	<p>J5 A water extract from ZESPRI™ GOLD but not Hayward green kiwifruit increases micronutrient uptake in intestinal enterocytes Frances M. Wolber*, Benjamin Schon, Reewyn Poulsen, Linley Fray, Lynley Drummond</p>	<p>**K5 Accounting for a products consumption context when measuring consumer acceptance Karen A. Hein*, Nazimah Hamid, Sara R. Jaeger, Conor M. Delahunty</p>
5:45 PM	<p>G6 Quantitative analysis for melamine in milk powder using GC-MS technique Amanda Sajwanie, Chathudina J. Liyanage*, Koliltha Amarasinghe</p>	<p>H6 Optimization of enzymatic protein hydrolysis from Pisin (<i>Pangasius spp.</i>) waste Mat A. Amiza*, Sukar N. Ashikin</p>	<p>**J6 A novel food stabilizer extracted from <i>Quimim basilicum</i> L. seeds: a rheological study S.H. Hosseini-Parvar*, S.A. Hozatzavi, S.M.A. Razavi, L. Malia-Merino, K.K.T. Goh, A. Motamedzadegan</p>	<p>K6 A comparison of sensory properties of pork from New Zealand and Indonesia using Singaporean panellists Jasmine Leong*, Roger W. Purchas, Patrick C. H. Morel, Brian H.P. Wilkinson</p>
6:00 PM	Networking Social (Exhibition Hall C)			
7:00 PM	Student's Function (Dux de Lux)			
	Canterbury Branch 40th Anniversary Function (Dux de Lux)			

PROGRAMME

J6 - STUDENT - A novel food stabilizer extracted from *Ocimum basilicum* L. seeds: a rheological study

Seyed H. Hosseini-Parvar^{1,2*}, Seyed A. Mortazavi¹, Seyed M.A. Razavi¹, Lara Matia-Merino², Kelvin K.T. Goh², Ali Motamedzadegan³

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Basil seed (*Ocimum basilicum* L.) has reasonable amounts of gum with interesting functional properties comparable to some commercial food hydrocolloids such as xanthan. The most interesting property of basil seed gum (BSG) is its high zero-shear viscosity compared to other gums used currently in some food formulations like sauces and salad dressings. Steady shear flow behavior and viscoelastic properties of BSG were investigated in concentrations of 0.1-2% (w/w) and temperatures of 5-85°C and modeled by time-independent rheological models such as Power law, Herschel-Bulkley and Casson models. The effect of temperature and concentration on the consistency coefficient (K) and flow behavior index (n) were evaluated. Temperature dependency of apparent viscosity was evaluated using an Arrhenius model. Frequency sweeps were performed in the range of 0.01-100 Hz at 20°C. Temperature sweep of BSG solutions were performed in amplitude gamma 0.5% and frequency of 1 Hz. Gel-like mechanical spectra of BSG is similar to xanthan behavior. Temperature sweep of BSG solutions showed development of gel formation with temperature. The high resistance of this gum to the high temperatures and extreme pH conditions make it a very promising food ingredient.

K1 - Coupling observed and stated purchasing behaviour: importance and willingness to pay for sparkling wine attributes

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This study aims to understand how Italian consumers value the attributes of chosen products and to estimate their willingness to pay (WTP) for organic sparkling wine.

Data were collected in two steps in the period December 2006/January 2007, the sales peak of sparkling wine in Italy. First, consumers were observed (disguised) in front of a supermarket's sparkling wine shelves. The schedule, devised to observe consumer behaviour in the natural shopping environment, recorded consumers' response latency, their investigation of products and the attributes of the chosen brands such as organic, price, country of origin, packaging, alcohol content or presence of sulphite.

Second, of those consumers who had eventually chosen a product ($n=306$), 171 were interviewed after check out. The questionnaire contained three sections aimed at eliciting the importance respondents assigned to the attributes of their chosen brands, their consumption habits and brand loyalty, and WTP for 'organic' sparkling wine using a payment card method.

Linking these two data sets in analysis allows an investigation of the sensitivity of WTP estimates in stated preference studies, because respondents were asked to state their WTP according to the number of bottles of sparkling wine present in their trolley. Further, eliciting importance scores after the purchase allows addressing the issue of "non-attendance attributes", as consumers do not consider all available product attributes in their purchase decision.

Using a Tobit model, respondents' WTP for 'organic' was estimated to be €3.14 per 0.75 litre bottle as a premium above similar conventional products. In terms of attribute importance, findings show that price was not so determinant in choice, whereas brand, country of origin and information contained in labelling appear to weigh more heavily in the purchase decision. The marketing implications of these findings are discussed.