

Pieterneel Luning's Visit to the Sydney Institute of Agriculture

October and November 2018

Dr Pieterneel Luning is an Associate Professor in the Food Quality and Design group at Wageningen University & Research in the Netherlands, where she helped to develop the Food Quality Management curriculum. Pieterneel and her colleagues developed a techno-managerial approach to food quality and safety that integrates natural science and management science. In addition to teaching, this systems perspective remains the lens through which she conducts research in diverse topics including food safety management, risk-based food integrity management, food safety governance in emerging countries, food consumption quality and waste, food fraud, and food product development.

Pieterneel spent three weeks at the University of Sydney, hosted by the *ARC Training Centre for Food Safety in the Fresh Produce Industry* from 29 October to 16 November. During this time, she met with local researchers, students and industry to share ideas on food and agribusiness curriculum, food safety and quality management, and food safety culture. Some highlights of the visit are outlined below.

Food and agribusiness curriculum

University of Sydney academics met with Pieterneel to compare degree structures, discuss opportunities for student exchange, and share experiences related to student recruitment, curriculum development, and academic standards. There is currently some discussion within the Australian food science and technology community on establishing guidelines for higher degrees in food science, so it was interesting to review the Wageningen food programs, which are among the top-ranked in the world.

An exciting new approach to education is the use of Virtual Reality and Augmented Reality technology in blended modes of learning to enhance student engagement, learning, and knowledge retention. Dr Kim-Yen Phan-Thien is working with colleagues to develop some VR scenarios that will be used to teach principles in food quality and safety management. During Pieterneel's visit, the group met with FMCG companies to discuss opportunities to address industry training needs as well as student learning through VR/AR-enhanced modules. Pieterneel brought her insights on education and 'serious gaming' to the discussion, which will

see partnerships with a leading manufacturer to produce a pilot based on beverage processing. Kim is also seeking partners in the

fresh produce industry to collaborate in producing VR scenarios.

Food safety and quality management

Pieterneel presented on 'Food Quality Management – A Techno-Managerial Approach' at the Sydney Institute of Agriculture seminar series on 2 November. The focus of research in our ARC training centre is on the 'hard science', e.g. pathogen dynamics, environmental interactions, quantitative models. The techno-managerial approach adds organisational and supply chain characteristics to the understanding of risk and control. This methodology will be explored in Elizabeth Frankish's PhD project on apple risk assessment, as a complementary framework for evaluating food safety management systems alongside the quantitative risk model that she is developing.

Members of the ARC Training Centre accompanied Pieterneel to meet with several industry partners to discuss tools for evaluating food safety management, and explore industry considerations in developing these to be relevant and useful to the Australian industry. A key point was that assessment methods needed to be clearly applicable as tools for continual improvement, and not



ARC Training Centre for Food Safety in the Fresh Produce Industry

additional compliance requirements. The ARC Training Centre would like to thank GSF Australia, Freshcare, Fresh Produce Group, and Harris Farm for hosting these meetings.

Food safety culture

During Australian Food Safety week, 12-17 November, the Fresh Produce Safety Centre and the University of Sydney ARC Training Centre for Food Safety in the Fresh Produce Industry co-hosted a webinar on 'Food Safety Culture – Take it Seriously'. The webinar was well-attended, with at least 80 participants. Pieterneel explained the underpinnings of food safety culture, its importance to food safety management, and how it can be evaluated. The webinar was followed by discussions with industry members. One of the outcomes will be the development of new research collaboration on food safety culture, led by Pieterneel and Kim. Industry members who are interested to find out more, and possibly participate in this research, are invited to contact Kim.

Summary

It is always invigorating to host international researchers, for the simple reason that they bring fresh ideas and perspectives to research interests held in common, or stimulate interest in new areas. The break from business-as-usual is energising and promotes creativity for all concerned. Pieterneel's enthusiasm for food safety education and research has been motivating for both our researchers and students, and we are grateful to both the *ARC Training Centre for Food Safety in the Fresh Produce Industry* and Wageningen University and Research, Food Quality and Design group for supporting her visit.

