

MEDIA RELEASE

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HEALTH BENEFITS OF FRUIT AND VEGETABLES

Under- or Over-Stated?

Delegates at this week's World Olympics of Horticulture – The International Horticulture Congress – will hear of a range of health benefits from fruit, vegetables, nuts, berries and so-called super-foods, functional foods and biofortified crops. Claims cover impacts on our eye and brain health, and in preventing and fighting various cancers through antioxidant activity. What are these health claims and what is needed to ensure consumer understanding?

A range of international and Australian specialists in the field of human health effects of fruits, vegetables, nuts and berries, as well as in traditional and modern knowledge of medicinal and aromatic plants, will be addressing over 3000 delegates from more than 100 countries who will attend the International Horticulture Congress (IHC2014) – the world premier horticulture event - in Brisbane from 17-22 August at the Brisbane Exhibition and Convention Centre.

“In the last two decades, fruit and vegetables have attracted a lot of attention for their antioxidant activity, both in terms of research and marketing. However, the tide has turned and the term antioxidant is now being rejected,” reported Dr Carolyn Lister, Team Leader - Phytochemicals & Health, Food Innovation Portfolio at the New Zealand Institute for Plant & Food Research Limited.

Dr Lister will explain the growing consensus that the term antioxidants should be avoided and in some cases the term phytochemicals or phytonutrients should be used instead. Claims should be related to functions other than antioxidant activity.

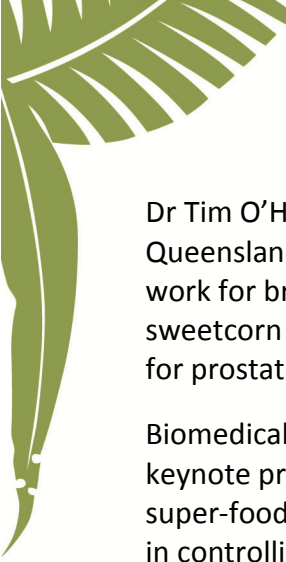
“The European Food Safety Authority has stated that manufacturers cannot make health claims about foods containing antioxidants; the US Department Agriculture withdrew their antioxidant database; the Academy of Nutrition and Dietetics has removed the term “antioxidant” from the food and nutrition vocabulary, and under Food Standards Australia New Zealand, the term antioxidant cannot be used for phytochemicals unless a self-substantiation dossier is compiled.”

“This brings a whole series of challenges, marrying the scientific research with consumer understanding and the requirements of the legislation to enable the marketing of fruits and vegetables with valid health claims,” she says.

“This is not to say health claims cannot be made on fruits and vegetables but just that the nature of some current claims may have to change. Fruits and vegetables are in a prime position to use many of the more than 200 pre-approved claims based on vitamins and minerals. These claims span from supporting bones, joints, eyes and the brain through to reducing the risk of heart disease. However, further work is required to get to health claims for phytochemicals.

(NB: Information on the key session on health benefits of fruits and vegetables is at [here.](#))

Other speakers making presentations on health issues are:



Dr Tim O’Hare from the Queensland Alliance for Agriculture and Food Innovation at the University of Queensland will address “Biofortification of Vegetables For The Developed World” and explain recent work for breeding for increased nutritional density. His current projects include the development of sweetcorn as a dietary protective measure against macular degeneration, tropically-adapted tomatoes for prostate cancer, and biofortification of macadamia nuts.

Biomedical Sciences Professor Lindsay Brown, from the University of Southern Queensland, is making a keynote presentation on “Foods As Medicines For Chronic Human Diseases” and is working on purple super-foods to reverse the health impacts of obesity including high blood pressure, fatty liver, problems in controlling blood sugar concentrations, impaired organ function and chronic low-grade inflammation. The new Queen Garnet Plum, the world’s latest ‘super food’ has up to five times the levels of anthocyanins present in normal plums and its first commercial harvest is now underway with a 75,000 tree orchard expected to yield 200 tonnes of the new fruit this season, increasing in coming years.

Prof Yves Desjardins is actively involved in the co-ordination of a new international Institute of Nutrition. A world specialist in health effects of berry fruits on cardiovascular diseases, metabolic syndrome, diabetes and others, he is involved in a number of clinical trials on the effect of small fruit on type-2 diabetes and is addressing the shift in understanding the effect of berries on diseases.

Dr Elizabeth Jeffery is Professor Emerita of Nutrition and Professor Emerita of Pharmacology at the University of Illinois. Her major research interests are mechanisms of cancer prevention by fruits and vegetables, particularly broccoli. Most recently she has been studying the impact of food processing on the bioavailability of bioactive food components, to ensure that the consumer gains optimal health benefits.

Dr Paul Bernstein, the Mary Boesche Professor of Ophthalmology and Visual Sciences at the Moran Eye Center at the University of Utah’s School of Medicine will be speaking on the health benefits of fruits and vegetable for the eye, with particular emphasis on macular degeneration.

Prof Derek Stewart, Leader of Enhancing Crop Productivity and Utilization Theme at the James Hutton Institute in Scotland will address the health benefits of berries and ensuring they are as nutritious as possible through improved handling.

Assoc Prof Joanne Jamie from the Faculty of Science at Macquarie University will be reporting on her community based efforts with indigenous communities in Australia and India, in an effort to preserve indigenous knowledge, develop cottage industries around plants of interest, and discover new drugs.

Prof Sandy Van Vuuren from the University of Witwatersrand South Africa will be talking about natural products and their role in treating skin diseases, with reference to some Australian products such as Manuka and tea tree.

In addition to presentations on particular fruits, vegetables, nuts and berries, more general issues include:

- The future of indigenous vegetables and their role in the battle against malnutrition and disease
- GMOs in horticulture
- Mechanisation, precision horticulture and robotics
- Connections between nature, plants, landscapes and human health