MEDIA RELEASE
Embargoed: 18 August 2014
Media are welcome to attend and prearranged interviews are encouraged.
Contact: Cathy Reade, Media Manager IHC2014 0413 575 934 cathy.reade@crawfordfund.org

PLANT FACTORIES, URBAN HORTICULTURE AND ECO-CITIES

Delegates at this week's World Olympics of Horticulture – The International Horticulture Congress – will hear of innovative approaches in landscape and urban horticulture, and the management of urban horticulture landscapes.

A range of international and Australian specialists will participate in the 5th International Symposium on Landscape and Urban Horticulture as part of the International Horticultural Congress (IHC2014), which will have over 3000 delegates from more than 100 countries at the Brisbane Exhibition and Convention Centre from 17-22 August.

"The future is green for Asian cities. Healthy, livable urban areas are crucial for sustainable development," according to keynote speaker Dr Steffen Lehmann**,** Head of School, Professor of Architecture, School of Built Environment, Faculty of Humanities at Curtin University.

One of the region's leading sustainable urban development experts, he says there is an urgent need to focus on making cities more livable and greener.

"Asia may not have a completely green city yet, but there are some cities in the region making the right moves.

"China is already starting to build eco-cities - places where people can live healthier and economically productive lives while reducing their impact on the environment," he says.

Dr Lehmann says that the idea behind eco-cities is to live with the environment and resources.

"Eco-cities strive to cut greenhouse gas emissions by producing energy through renewable sources such as solar, wind and biomass, and using low-carbon public transport," says Dr Lehmann, a sustainable design and behaviour specialist.

The Congress will also hear from Toyoki Kozai, Professor Emeritus of Chiba University, Japan of the development of urban horticulture. He notes that urban horticulture ranges from large technology-intensive indoor plant factories (or vertical farms) with artificial light producing 23,000 leaf lettuce heads daily, through to small units with lamps and an environment controller at the other end. This indoor horticulture in Japan is found at private residences, educational institutions, public facilities, hospitals, hotels, restaurants and shopping malls.

"In the plant factory for commercial production, water consumption for irrigation is reduced by 95% because almost all the transpired water vapour is condensed at the cooling panel of air conditioners and collected for recycling – a super water-saving way of plant production.

"Annual productivity per unit land area is over 100-fold compared with that in the open field regardless of weather and soil fertility," he says.

And it pays to have greener cities.

“Trees provide services and fulfil functional roles in cities. They are significant components of urban infrastructure and have a real and calculable economic value,” says Dr Gregory Moore, Doctor of Botany from the University of Melbourne.

“At a time of climate change, high density housing and inner city renewal are leading to a significant reduction in tree cover in major cities, which comes at a significant economic cost to urban infrastructure,” he explains.

“An urban forest of 100,000 trees can save $1.5 million per annum because their shade reduces electricity consumption and saves water. And shade can prolong the life of roads.”

“A large tree growing in a school provides the equivalent shade of four shade sails, returning a value of about $2000 per annum and five trees stabilize a steep suburban block which would require about $50,000 of engineered piling to secure building insurance.”

More general issues to be covered at IHC2014 include:

- The place of horticulture in world food production
- Human health effects of fruits, vegetables, nuts and berries
- The future of indigenous vegetables and their role in the battle against malnutrition and disease
- Traditional and modern knowledge of medicinal and aromatic plants
- Functional & biofortified food and GMOs in horticulture
- Mechanisation, precision horticulture and robotics
- Connections between nature, plants, landscapes and human health