

FOREWORD

Over 225 science and industry delegates from 40 countries debated properties and possibilities of growing media and soilless culture at the GroSci2013 symposium on 17-21 June 2013 in Leiden, The Netherlands. The symposium was organised under the auspices of the Commission Plant Substrates and Soilless Cultivation of ISHS and in cooperation with the International Peat Society. It was hosted by Wageningen UR Greenhouse Horticulture.

Emphasis was placed on the theme, presentations, debate, posters, industry relations and excursions. **The theme was: “World Wide Water Use Efficiency”**. The key technique to increase resource efficiency is recirculation, the collection and re-use of drainage water and fertilisers. In the opening session **Dr Cecilia Stanghellini** argued that despite higher inputs in energy and nutrients, resource efficiencies reached in greenhouse horticulture (with recirculation of irrigation water) are the highest the planet has ever seen. GroSci2013 participants were challenged to make decision makers in countries with expanding horticulture aware of these advantages! **Debate** was organised on topics: ‘Global or local production of substrates’ and ‘Substrate growing around cities or water based cultivation in the cities’. **Posters** were given a prominent physical area and opportunity for three minute poster pitches. **Industry relations** were acknowledged as vital by ISHS, IPS, Wageningen University and the Ministry of Economic Affairs. Industry stands were prominently situated and evening workshops on actual research funding chances for industry and research partners were organised. Organisers wish to thank all sponsors. **Excursions** aimed to show the world’s foremost horticultural use of Growing Media and Soilless Culture. Excursions were made to the Wageningen UR Greenhouse Horticulture facility in Bleiswijk, the Klasmann-Deilmann potting soil factory in Schiedam, Sion Orchids (automated pot orchids), Deliflor chrysanthemum breeders and Dry hydroponics/Topkrop lettuce on water. The organisers sincerely thank these companies for their time and great support.

The keynote speakers for the technical sessions described state-of-the-art thinking on physical properties, chemical interactions and bio-control of rooting media. **Dr. Jean Caron** showed how the focus shifts from static to dynamic quality parameters for stability and transport of water, nutrients and oxygen. **Dr. Nikolaos Katsoulas** showed how poor quality irrigation water can be used, avoiding problems related to the use of irrigation water with high sodium chloride content. **Dr. Sammar Khalil** described the progress in creating resilient systems. Growing media offer scientists and growers more possibilities than soils to create and control rich and diverse microbial communities. **Mr. Johannes Welsch**, gave the latest figures on peat use world-wide and in particular in Germany. He challenged the audience to accept peat as a sustainable growing medium and asked for fair comparisons of the alternatives.

The conveners express their deep gratitude for the many, many, persons who put in their time and effort to help host GroSci2013. To be mentioned : Hans Verhagen (RHP), Sjaak Bakker (Wageningen UR Greenhouse Horticulture), Hein Boon (RHP), Bill Carlile (ISHS), Gerald Schmilewski (IPS), Niek Botden (HortiLink), Patricia Kagenaar (Holiday Inn), Carel ten Cate (Leiden University), Henry Lenferink (Leiden City), Olaf van Kooten (InHolland), Paula van Ommen (Photography), JetLag Overdrive (Music) and ROC Bleiswijk (Flower arrangements).

Convenors Chris Blok, Erik van Os and Wim Voogt