## SOILESS AUSTRALIA

Official Newsletter of the Protected Cropping Australia Industry Vol 2 / 2013 Incorporated since 1990 www.protectedcroppingaustralia.com

Solutions For Sustainable Growth 12th Biennial PCA National Conference





## What drops are tops in your greenhouse?

#### Drippers, sprinklers and mist-sprayers

You'll appreciate the reliability of John Deere Water products in your greenhouse. Whether your plants are in hanging baskets, on tables, or in large containers, John Deere Water products can deliver the right amount of water, when and where you need it.

Visit JohnDeereWater.com.au for more information or find your nearest John Deere Water dealer by calling (07) 3881 4071.





## Contents

PCA Conference Program	3
PCA Conference Sponsors & Exhibitors	5
PCA Conference Delegate Registration For	m7
Precision Growing	7
AgriBio Science R&D Center	9
Royal Brinkman	10
NAB Agribusiness	12
Munters Pad & Fan System	14
Alternative Greenhouse F&V Crops	16
Recycling Rockwool Slabs	17
Managing Sustainability Performance	17
rrigation Strategy In Substrate	18
Nutrient Foliar Sprays	18
Propagation Plugs For NFT	19
PCA Membership Subscription Form	20
Nhy Become A PCA Member?	21
AustSafe Super	22
The Big Bouquet	25
Plant Factories	
Job Roskam - Roskam Young Plants	
Aquaponics: Truths, Realities & Fallacies	
_e-Fresh Hydroponics	35
Measuring Accumulated Light	
Classifieds Directory	
Soilless Calendar	
PCA Board Of Directors Contact Details	40

Front Cover: At the PCA Conference in July, Royal Brinkman presents Frits Veenman on 1) Irrigation & drain control with weigh scales 2) Climate control with a plant temperature camera

DISCLAIMER Soilless Australia is published by Protected Cropping Australia Ltd. All editorial matter and opinions expressed in this newsletter are those of the author. The PCA does not accept or assume liability or responsibility for any loss or damage resulting from the correctness of such information. The publishing of advertisements does not imply the endorsement of those products or services. All ads must comply with the Trade Practices Act and state regulations. Any correspondence concerning the newslette should be sent direct to the editor.



## Solutions For Sustainable Growth

A Practical Conference For Greenhouse, Hydroponic & Aquaponic Growers

#### **Conference Program**

#### Sunday Afternoon 28 July

1-5 pm 50 Booth Trade Exhibition PCA AGM 6 pm Moraitis Welcome Cocktails 7 pm

#### Monday Morning 29 July

#### Official Opening - Plenary Lectures (single topic)

8 am - 5 pm Trade Expo

Commercial Protected Cropping Application of Light & Optics Jürgen Kleinwächter, Sunvention, Germany Australia's Economic Future Dave de Garis, senior economist, NAB. What the supermarkets want from Protected Cropping Daniel William. Coles

#### Monday Afternoon 29 July

#### Concurrent lectures (4 topics per session)

Consequences of climate differences in greenhouses Ben van Onna, Netherlands Biochar as a soilless media Nick Savidov, Alberta Agriculture, Canada Getting the best out of your crop protection application Scott Mathew, Syngenta Precision growing for sustainable greenhouse production Andy Lee, Grodan UK New greenhouse air handling systems for Australia Ben van Onna. Netherlands Managing sustainability performance + recycling rockwool slabs Stuart Lambie, Grodan, UK; Tony Bundock, Chisholm TAFE What screens do for your plants Ton Habraken, Svensson, Netherlands Climate control with drain weigh scales & plant temperature camera Frits Veenman, Royal Brinkman, Netherlands Sustainable growth in a farm enterprise Jeremy Badgery-Parker, Primary Principles Fundamental management of hydroponic systems Rick Donnan, Growool Horticultural Systems

The effectiveness of foliar feeding Sophie Parkes, NSW DPI Green roofs - John Rayner, Melbourne University

5-6pm Tomato Levy Forum

#### Monday Evening 29 July

#### Banquet Dinner

7.30 pm Pre-dinner Drinks pm Banquet Dinner 8

Register Online Now PCA National Conference July 28-31 2013





















## **Solutions For Sustainable Growth**



## **Munters** BRII<u>NIKIMA</u>N

1) Flower Tour

**TNB** Tulips / Tulips

Sunny Hill Flowers / Lilium

The Big Bouquet / Gerberas

**Conference Program pg 3** 















### **Conference Program pg 2**

#### **Tuesday 30 July Lectures & workshops**

5.30am Flowers Victoria Market Bus Tour (Optional extra) 8am-5 pm Trade Expo

#### Concurrent lectures (4 topics per session)

Consequences of climate differences in greenhouses Ben van Onna. Netherlands

New greenhouse air handling systems for Australia Ben van Onna. Netherlands

Climate control with plant temperature camera Frits Veenman, Royal Brinkman, Netherlands What screens do for your plants

Ton Habraken, Svensson, Netherlands The effectiveness of foliar feeding

Sophie Parkes, NSW DPI Biochar as a soilless media

Nick Savidov, Alberta Agriculture, Canada Getting the best out of your crop protection application Scott Mathew, Syngenta

#### Specialist Crop Workshops

#### Fruit & Vegetable Vine Crops

Alternative greenhouse fruit & vegetable crops Mike Nichols, Massey University, NZ Practical IPM - How it works at Bellarine Hydroponics Daryl Wilson, Bellarine Hydroponics. Realities of upgrading greenhouse technology - Grower stories Ian Mortlock, Jon Murphy, Chris Millis JOIN OTHER Irrigation strategy in substrates GROWERS Herman Eijkelboom, Netherlands WHO LEARN FROM THE

#### **Cut Flowers**

IPM for Cut Flowers Paul Horne, IPM Technologies Quarantine issues for flower imports Rob Schwartz and Dr Kat Smith, DAFF Nutrient deficiency in floricultural crops

Herman Eijkelboom, Netherlands Plant physiology for flowers (temp, water & CO2) Wim van der Ende, Netherlands Flower Q & A Forum – Panel

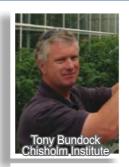
Eijkelboom, van der Ende, Roskam, Mann, Tesoriero, Horne

#### Leafy green (lettuce, herbs, Asian greens)

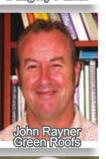
Propagation Plugs For NFT Systems Rene van der Meche, BVB Biological control of pythium root rot in hydroponic coriander Len Tesoriero, NSW DPI NFT solution temperature management Brian Ellis, Brian Ellis Consulting IPM for leafy greens Paul Horne, IPM Technologies Plant factories for production and nursery Mike Nichols, Massey University, NZ

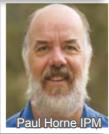
#### Aquaponics

Commercial aquaponics in Canada Nick Savidov, Alberta Agriculture, Canada Australian Aquaponics - What every grower needs to know! Paul van der Werf, Earthan Group Commercial aquaponics in Canada - Nick Savidov, Canada





















# Aquaponics - a grower perspective



2) Veg & Leafy Greens Tour Chisholm Precision Growing Center Centre For AgriBiosciences 3) Mixed General Tour Boomaroo Nursery **Ceres Aquaponics** Centre For AgriBiosciences

#### Sponsors & Exhibitors in the Trade Expo

**Major Sponsor** Horticulture Australia Ltd (HAL)

**Platinum Sponsors** 

Hortworks (Powerplants / Greenworks) Munters NAB Agribusiness **Roval Brinkman** 

#### Welcome Cocktails Sponsor

Moraitis Wholesale Welcome Function

Lanyard Sponsor Way To Grow

#### Silver Sponsors

Exfoliators Australia Palram Australia Greenhouse Covers Perfection Fresh Australia Wholesale

#### **Session Sponsors**

South Pacific Seeds Sivanthi Joe Substrates

Agvita Analytical Laboratory Besgrow Substrates Chisholm TAFE **Duralite Horticultural Supplies** EE Muir and Sons Faber Greenhouses FormFlex / Metazet Goulburn Ovens TAFE (GOTAFE) Growhard Australia Wholesale Hortraco & Viscon Australia John Deere Water Kubo Greenhouse Projects Lefroy Valley Seeds Living Shade / Svensson **Organic Crop Protectants** Peet van Ruyen Greenhouses Rijk Zwaan Seeds Sustainable Liquid Technologies (SLTec) Syngenta Australia Seeds Trandos Hydroponic Growers Trinog-xs (Xiamen) Greenhouse Technical Co. Van der Hoeven Greenhouses Yara Australia











#### Tuesday 30 July Specialist Crop Workshops continued

Hogan Gleeson, Urban Ecological Systems Aquaponics - an investor perspective Greg Dutton, Urban Ecological Systems Aquaponics - Truth, Realities and Fallacies! Wilson Lennard, Aquaponic Solutions

#### Wednesday 31 July Choice of 3 All day farm tours

Optional extra for delegates only - Buses return to airport by 4.30 pm

Joe Raudino / Delphinium, Kale & Stock

Mornington Pennisula Hydroponics / Frank Donato

Bellarine Hydroponics / Anne & Daryl Wilson







This program is subject to change without notice

#### **Gold Sponsors**

#### **Extra Exhibitors**

Australian Contour Packaging Austsafe Super BOC Gas **BOM Greenhouses** Hydroponic Farmers Federation MADEC Australia Monsanto Australia NSW Department Primary Industry Paskal Greenhouse Solutions Protected Cropping Australia PropTec / Highsun Propagation Redpath Ideal Greenhouses Westland Greenhouse Projects

#### **Farm Tour Sponsors**

Flowers Victoria Market Tour Ball Australia Farm Tour

TRADE EXPO **OPEN HOURS** SUNDAY 28 JULY 1-5PM Open to General Public & Industry MON 29 /TUES 30 8AM-5PM Conference Delegates Only