



# SOILLESS AUSTRALIA

Official Newsletter of the Australian Protected Cropping Industry  
Volume 4 / 2013 [www.protectedcroppingaustralia.com](http://www.protectedcroppingaustralia.com)



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## Contents

PCA Working For You .....3

AgVita Analytical - PCA's Preferred Supplier .....8

Urban Farming System For Barramundi & Herbs ....10

IBISWorld Hydro Industry Reports USA/Australia ..14

PCA Membership Subscription Form.....16

Why Become A PCA Member?.....17

Berry Popular;

    Nuffield; Hydro Berries & Aquaculture .....18

    How to Grow Greenhouse Berries .....18

    Costa BerryExchange Tasmania Success ....19

The Grass Lamp .....20

Big Hearted Salad Growers Share Their Love ....21

To Buy Or Expand Your Next Greenhouse? .....22

Greenhouses, Food & Cooking; Book Reviews ....24

Green Walls .....26

Classifieds Directory .....30

Soilless Calendar .....31

Soilless Australia Advertising Rates .....31

PCA Board Of Directors Contact Details .....40

### Front Cover:

Nicky Mann of Roses2Go now also grows hydroponic greenhouse raspberries in styrofoam boxes, with drip fed cocopeat media. Nicky has just been awarded a Nuffield Scholarship to study hydroponic berries and aquaponics. She is also the Chairwoman of the next PCA Conference in the Gold Coast, 4-8 July 2015

See page 18 "Berry Popular"

### DISCLAIMER

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## PCA Membership Benefits Working For You



The PCA Board of Directors elected in July 2013 are growers and allied trade of the Australian hydroponic and greenhouse industry - just like you.

Each is working on your behalf, seeking tangible benefits for your membership.

PCA Director Len Tesoriero has worked for NSW DPI for twenty years, connecting growers with scientific research on crop diseases and pathogens. He has been on the PCA Board / AHGA Executive Committee many times and was the Chairman of our 2009 national conference. Len writes below about the benefits of research to your crop and biosecurity.

### Allied Trade Support For Greenhouse Growers

By LEN TESORIERO, PCA Director & NSW DPI

Protected Cropping Australia Ltd plays a valuable support role to all sectors of the protected cropping industry. Through this Soilless Australia magazine, our industry conference and via our committed Board of Directors, the PCA facilitates greater awareness and communication about new innovations, practices, products and threats.

Being connected to others is an important part of being human and living in a world that is changing rapidly. We aim to be one of your partners in this process.

As protected cropping and hydroponics industries are technology-based, there are constantly new products and practices that can improve production efficiency and product quality. PCA uses this publication as a conduit to these innovations.

For the group of industries that make up the allied trades, PCA connects you to growers, other industry bodies and Governments. We are actively seeking ways to enhance your business success and keep growers up to date with the latest innovations. Remember your success flows through the whole industry and therefore it's a win for all of us.

As your representative on the PCA board, I'd like to encourage you to get involved with PCA sponsorship and help make a difference.

### Plant Protection

My personal skills lie in the area of plant protection, specifically with plant disease detection and management. My current work portfolio is to assist with identifying and reducing biosecurity risks to our plant industries. My specialist skill are in plant pathology and disease management.

I'd like to spend a few lines here reviewing a few current issues that have given some growers significant headaches, and I dare say also given some of our seed companies some grief in the past few years.

### Viroids

The group of plant pathogens called viroids are among the smallest infectious agents known.

Potato spindle tuber viroid (below) and a number of related species can infect tomatoes and/or capsicums causing significant losses because they spread easily from plant to plant by contact or handling.

Long cropping cycles obviously increase the chance of spread, particularly with regular, picking and deleafing as well as use of grafted plants.

Unfortunately it has been demonstrated that these viroids are also carried on seed and therefore have been spread around the world with trade.

Australian quarantine authorities have recognised this threat and have implemented a requirement for imported seed to be tested. This has resulted in some delays in availability of seed stocks and in some cases has led to the rejection of certain seed batches.

All sectors of the industry need to recognise this pathogen threat and the technical difficulties in implementing seed testing.

The saying 'finding a needle in a haystack' is quite apt when applied to finding certain plant pathogens in batches of seed. Moreover, the molecular tests can be compromised by some chemical seed dressings or other non-pathogenic bacteria and fungi that can infest seed lots. This leads to delays because the material requires retesting.



Potato spindle tuber viroid can quickly destroy your crop. Stringent QA & research both on-farm & at our borders will protect your income.

## PCA Working For You

### Fusarium Wilt

Another disease that has become more common in recent years is Fusarium wilt. Once only a problem in Queensland, there have been several detections of Fusarium Race 3 over the past decade in NSW. Although there are a few varieties on the market with Race 3 resistance, most commercial varieties are susceptible to this pathogen.

Grafting onto a resistant rootstock is the primary way that this disease can be controlled.

Yellowing of the older leaves as the plant wilts is a key symptom that distinguishes this disease from other wilts such as Bacterial Canker and Bacterial Wilt.

Contact PCA Director representing the Allied Trade  
Len Tesoriero Ph: 0447 623 487

### Greenhouse Tomato R&D Levy

For those growers who don't think we need an R&D levy, take note that you are gambling your future production given that new races of fusarium appear every so often and without any intelligence on the current status of what strains are present in Australia, we leave ourselves wide open to the establishment and spread of new strains before we are even aware of it. Something to think about – be aware and informed; not alarmed.

A levy would enable independent scientific research to protect this lucrative crop.

Contact PCA Chairman Marcus Brandsema Ph 0409 217 131

### Keeping Skills Up-To-Date

PCA Director Annie Hart is the Growing Manager at South Gippsland Fresh Produce, where she is responsible for three 3,500 m<sup>2</sup> greenhouses. In just over a year the whole operation has been totally transformed and they are now in full production with tomatoes, eggplant, herbs and lettuce. (Photos on right)

On 14th November 2013 Annie attended an 'IPM Master Class - The Principles of Pest Management' at **Chisholm Institute** in Cranbourne. Dr Paul Horne and Jessica Page presented to a variety of growers including wholesale nurseries, field and greenhouse growers, as well as students. Afterwards, everyone went to the De Ruiter seeds "Living Proof Experience Centre" at Chisholm to inspect their 35 tomato varieties in situ.

Greenhouse courses at Chisholm are very informative and highly recommended to all growers to stay up-to-date with the latest techniques. For further information please contact Tony Bundock on 0409 007 610 or [tony.bundock@chisholm.vic.edu.au](mailto:tony.bundock@chisholm.vic.edu.au)

I heard from growers who went to **BerryQuest 2013** in October, that there was a high calibre of speakers and strong demand for information on greenhouse growing. I won't miss it next year and neither should you! For more information contact the organisers, Raspberries and Blackberries Australia Inc (RABA).

The majority of us in Australia take for granted the availability of a wide choice of fresh produce. However, in remote parts of this country this is not an option. It is great to see that many people are looking to protected cropping to alleviate this scenario with several projects in the pipeline.

Contact PCA Director representing F&V Growers  
Annie Hart Ph: 0458 490 341

### Water Resources & Aquifer Integrity & Coal Seam Gas (CSG)

Coal Seam Gas (CSG) is a relatively new, and controversial industry in this country.

One member of the PCA Board has a substantial glasshouse enterprise reliant upon unidentified aquifers feeding their spring-fed dam.

A coal seam gas company has been exploring within 5km of this dam, drilling straight into the aquifers and down to depths of 1000m or more.

A second greenhouse operation has CSG drilling 20km away.

The majority of water bearing aquifers accessed by agricultural users tend to be less than 200m in depth, and these gas wells drill straight through them.

Despite assurance about the "integrity" of the bore casings and the process they use to ensure there is no cross flow between upper and lower water aquifers, this same CSG company recently experienced an incident where one of its "fracked" wells essentially blew up, ejecting the top 200 metres of drill string and bore casing out of the well and showering the surrounding area.

This industry is still developing technology to achieve their objectives, and it seems that they are experimenting and learning it as they go on what are called "Exploration Leases".

Our principal concern is in regards to water issues - contamination, alienation of supply and waste water management.

PCA is developing a policy position on this important issue, but needs to be informed by its members as to their views - please email them to:

Contact [admin@protectedcroppingaustralia.com](mailto:admin@protectedcroppingaustralia.com)



Ultimately, we need to see an improvement in the quality management systems in seed production. I'm sure this is already happening and that mandatory testing will become a thing of the past as companies demonstrate they have sufficient QA and testing in their seed production.

The PCA will keep you informed and keep your business and crops' interests as a priority.



Okra & eggplant grown commercially by PCA Director Annie Hart



NFT Cos & fancy lettuce by PCA Director Annie Hart



Asian greens & fancy lettuce by PCA Director Annie Hart





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