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Official Newsletter of the Australian Protected Cropping Industry
Volume 4 / 2014 Summer www.protectedcroppingaustralia.com



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Front Cover:

Keshav Timalsena is the Senior Grower Manager at Tomato Exchange, Guyra NSW

Here he is picking in a semi-closed glasshouse in Marseille, France as part of his 2014 Nuffield Scholarship
Full story page 10

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Any correspondence concerning the newsletter should be sent direct to the editor.

PCA Chairman's Message

The end of a calendar year for many is a time to slow down, reflect on your achievements and spend time relaxing with family. Some of us may have that opportunity, but for many growers summer is a time of working hard (and smart) to reduce the impact of extreme temperatures and changeable weather conditions that affect their crops.

PCA are working hard and smart as well, to provide value to you as members.

In July 2015 we will host our biggest conference yet at Jupiter's' Convention Centre on the Gold Coast to be called The PCA AIS Greenworks conference.

A wave of enthusiasm grows after the 2013 Melbourne conference success and more than half the trade booths have already sold. Delegate registration is now open and PCA membership affords you easy access and rates. You can come for just a single day or the whole 3 1/2 day event that includes soilless farm tours and social events . Book your place now and meet up with growers and suppliers to learn the latest in hydroponic and greenhouse technology.

www.pca2015.org

At the same time and venue as the PCA AIS Greenworks conference we are also hosting the international academic conference called ICESC 2015: Hydroponics and Aquaponics at the Gold Coast.

www.icesc2015goldcoast.org

ICESC stands for International Convention and Exhibition for Soilless Culture and it is part of the International Society for Horticultural Science (ISHS) The 2015 program will bring more than 100 researchers and scientists to Jupiter's to present their latest research to their peers and publish their findings in the conference curricula.

July 5-8 2015 - Concurrent Events - One Massive Trade Exhibition

The national and international conference programs will run separately, yet there will be many opportunities to mingle together in the trade exhibition and Welcome Cocktails.

PCA continues to represent the interests of its members by providing representation on the steering committee of University of Western Sydney's (UWS) new training and research greenhouse facility. PCA Director Graeme Smith is the chair of the UWS Greenhouse Industry Consultation committee, providing a valuable link between the University and industry.

Elsewhere in this edition of Soilless Australia magazine you can read about the recent PCA Greenhouse Study Tour to North America and on deals that we are negotiating to provide value and service for you as members, including greenhouse insurance, AgVet Chemicals and disease management strategies.

On behalf of the PCA Board I wish you all a safe and happy summer.

PCA Chairman Leigh Taig

Glasshouse Insurance

There is a new option for glasshouse and crop insurance here in Australia. PCA has been working with Achmea (www.achmea.com.au) to facilitate their entry into this specialised insurance field, an essential area of risk management for grower members.

PCA Chairman, Leigh Taig and Director Robert Hayes met in Melbourne on 5/9/14 with Achmea Australia CEO, Timo Van Voorden, and Bernard Koeckhoven from Achmea NL, to discuss their company's entry into the Australian glasshouse insurance market.

Achmea has recently completed the gruelling process to obtain all statutory approvals to operate as a fully licenced insurance company in Australia. They have entered the broader crop and rural insurance market and are providing substantial premium savings to their farmer clients compared with the incumbent players.

Achmea is a mutual insurance company, owned by its policyholders and partly by the specialist rural lender, Rabobank, which is also a mutual.

This means Achmea answers ultimately to its policyholders, and not shareholders who expect a profit. They take a very disciplined approach to assessing every risk that they take on, and visit and assess each property.

Achmea utilise their extensive experience in insuring 80% of all Dutch glasshouses plus glasshouses in other countries, providing advice aimed at minimising risk and potential loss for growers, and therefore Achmea.

There have been several further meetings between PCA, Timo and Achmea staff. PCA are looking to provide Achmea with information to gauge the size of the potential market for glasshouse and related crop insurance.

To do this we are establishing an industry database and we ask that you assist us by emailing us the following information about your greenhouse;

PTO





Eastern Tiger Snake

Glasshouse Insurance

- Area
- Age
- Who built it
- What crop(s) grown
- Your postcode

admin@protectedcroppingaustralia.com

Whilst we understand that polyhouses are not currently insurable, if you are a polyhouse grower, it would assist if you can likewise provide your details.

PCA is compiling this information to develop an industry database which can generate summary information for the many interested parties who need background information on our industry.

Statistics help assess and promote our modern face of horticulture from the ground up. This in-turn will also be useful in dealing with Government and related regulatory and industry policy and development issues.

PCA directors are optimistic that during early 2015 we will be able to bring members some more positive news on this front. PCA members will benefit from more choice, better coverage and very competitive pricing for glasshouses, crops and general insurance.

PCA Director Robert Hayes

Unwanted Visitors

As we have passed winter and are enjoying higher light levels and longer day length a greenhouse manager should be happy, but not this one.

The sunny days have once again brought out intruders into my packing shed and greenhouses of a reptilian nature. The tally so far:

- Lizards
- 2 x Blue Tongue
- 2 x Tiger Snakes
- 1 x Copperhead Snake

The presence of these critters puts the staff on edge (to put it mildly) and as their safety is paramount I have no option but to relocate them. Remember that in Victoria it is illegal to kill snakes so prevention is the key. A closed and sealed greenhouse keeps out both unwanted insects and reptiles.

If you see a venomous snake, don't lose sight of it and ring WIRES to help remove it. Ring 000 if bitten.

PCA Director Annie Hart

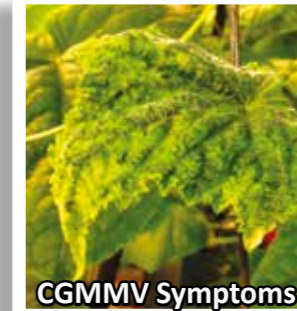
Exotic Diseases

In Greenhouses

On the recent PCA study tour of North America I was fortunate to observe three virus diseases that are exotic to Australian greenhouse cropping. Some images in books or on the web don't always capture subtleties of disease symptoms, so this experience was a great opportunity to see disease symptoms on growing plants and to discuss early disease recognition and management strategies with the growers.

A most topical disease observed in Canada on greenhouse cucumbers was Cucumber green mottle mosaic virus (CGMMV), which your scribe recently detected on watermelons in the Northern Territory. It can cause a very serious viral disease on different cucurbits and is very difficult to eradicate once it has become established on a farm. The Canadian grower told me he first noticed it a few years ago and it has persisted in subsequent crops despite careful hygiene and disinfection of his greenhouse between crops. CGMMV is a member of the Tobamovirus group and is closely related to, but distinct from, viruses that infect tomatoes, tobacco and capsicums. CGMMV can be spread with seed – mostly externally on the seed coat and can be eliminated by a dry heat treatment of 70oC for 3 days. Reputable seed companies already use this practice and other quality management systems for cucumber seed as it also decreases the risk of spreading bacterial and fungal pathogens.

Unfortunately a recent report has demonstrated that heat treatment does not always eliminate the virus. Although not spread by insects CGMMV is very contagious on tools, hands and clothing, or even when leaves touch each other.



A recent report also showed that it can be spread with pollen; an issue that isn't so relevant for greenhouse cucumbers growing under optimal conditions when flowers are mostly female.

Use of a disinfectant or 3% trisodium phosphate on tools or machinery is recommended to reduce the risk of spread.

It will be most important to look for virus disease symptoms in greenhouse cucumbers over the coming months as Australian authorities attempt to contain the virus outbreak in the NT. All imported Cucurbit seed is now required to be tested for CGMMV, an extra impost on the industry but perhaps prudent given the losses that will be endured by the affected growers.

In contrast to the melon industry, cucumber growers would be compensated for losses due to quarantine restrictions following an exotic disease outbreak – one reason to have a R&D levy in place with a biosecurity provision.

By PCA Director LEN TESORIERO

achmea australia New Glasshouse Insurer

Achmea Australia is a new insurer in the Australian market, catering exclusively to farmers and the rural community. While new in Australia, Achmea has over 200 years' experience in their home country of the Netherlands, where they have been helping farmers prevent, manage and cover risk since 1811.

Achmea was originally started by a group of farmers who worked together to support each other and minimise the risks and threats faced by each other's farms, not just their own. With around thirteen million clients worldwide, they have maintained their co-operative roots and are now one of the world's largest mutual insurers.

Achmea offers a new approach to farm insurance which focuses on risk mitigation before looking at insurance cover. They sell direct to farmers, not through brokers, with Risk Specialists who visit and tour each farm, conducting a thorough risk assessment, identifying and analysing all the risks faced on the farm with the aim to keep farmers farming, no matter what.

Achmea believes that the right insurance solution strikes the right balance between risk and protection. Achmea Risk Specialists work with the farmer to try to eliminate risks that can be avoided. For those risks that can't be eliminated, they provide solutions for reducing the risk, covering everything from infrastructure improvements and building materials to storage procedures and fire safety.

Not all risks threaten the continuity of a farm. And carrying some risk themselves minimises what farmers pay for their insurance.

Achmea's approach is aimed at reducing premiums and keeping farmers farming, no matter what.

Glasshouses

Given their Dutch heritage, Achmea has vast experience in all aspects of insuring glasshouses and intensive farming enterprises. They have been providing glasshouse insurance to Dutch customers for over 50 years. In the Netherlands, their glasshouse specialists supervise new building projects and advise the farmers before, during and after the building of their glasshouse.

These Dutch specialists regularly visit Australia and Achmea's Australian customers. They are fully aware of the latest glasshouse technologies and modern building methods and construction materials, and gladly share this knowledge with their Australian colleagues and their clients.

As with all their customers, Achmea is committed to helping the glasshouse industry ensure the continuity of their business operations.

www.achmea.com.au



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PCA Greenhouse Study Tour 2014

Canada / Mexico / USA



The PCA Study Tour in October was a great success. Sixteen PCA members write of the high quality of their farm visits, the important information they acquired, and the importance of their camaraderie and shared perspectives as they travelled. Here are some of their highlights.

Differences

Seeing different management systems and how different all the results are. There is so much diversity and variation in crops, market and climates between properties and countries. Understanding your crop and your climate helps a grower make informed decisions on appropriate technology. Each have their advantages and disadvantages meaning no one size (system) fits all.

Anthony Brandsema noticed out how a lot of the North American growers left their top vents open while using CO2 enrichment. He felt this was an indication of how inexpensive their gas price is compared to Australia.

Max Horvath was shocked that the labour price overseas is nearly half of what we have to pay.

Doefs Greenhouses - Cucumbers

A highlight for all was visiting Jo Doefs Greenhouses at Edmonton in Canada and seeing how successfully they operate as a family farm. Their perfect greenhouse climate shows in their healthy cucumber crop where they produce 300/m² - compared to 220/m² in The Netherlands and 180/m² in Australia.

Supplemental lighting and a hire wire system using Pellikaan Clips are some of Jo Doefs maximising techniques. Excellent sanitary and bio-security practices have nevertheless not entirely protected them from the dreaded emerald mosaic virus

Doefs greenhouses also proudly shared that they get 30% of their income from 10% of their sales because of their proximity to their customers.

Lufa Farms - City Rooftops *pictured above*

Lufa Farms is a commercial rooftop greenhouse in downtown Montreal where they strive to change the way cities eat through innovation and technology. They grow food where people live, and grow it more sustainably. This means cultivating tomatoes, eggplants, cucumber, greens, and more on city rooftops using less inputs and without synthetic pesticides.

By being close to customers, they are able to harvest everything on the same day it is delivered to the neighbourhood so it's as fresh as possible.

Everyone on the tour was captivated by the passion and enthusiasm of these young entrepreneurs to growing and protected cropping. Their niche marketing and close connection to their customers is a great business model and concept in urban horticulture.

Mexico - Mini Cities

The rate of expansion in Mexico is phenomenal. One site was 60 hectares of glass and plastic and planning to expand another 12 hectares every year. The standard is world class and they producing food for the North American market. They are like mini greenhouse cities, as they have their own energy plants and feed back into the grid. The workers spend all day in one facility, with their lunch rooms attached to the greenhouse, partly to reduce the risk of spread of insects or disease.

Canadian Biologicals

The Canadian growers have a whole suite of biological controls available for pests and diseases to use in greenhouses compared to us in Australia. Back home we need an acceleration of bio-protectants available as we are lagging behind the rest of the world.

The group saw not only good bugs as predators but also disease control biologicals and bio-insecticides.

They also saw how simple management practices such as mesh on vents and good sanitation is critical for disease control and prevention.

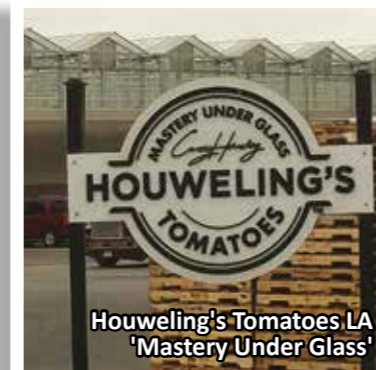
One very simple method to assist the control of problematic pests like thrips is to use banker plants like Mullein and oregano for hosting predatory bugs. Thrips flock to the attractant plant dispersed in the crop which is then be piled with predators. Another simple good idea is to put vanilla beans in a shallow white dish at the opening of the greenhouse which attracts thrips which then all drown.

Australian Advantages

Being an island Australia is a relatively protected market, also because of our distance from competitors. Compared to the USA, we don't have Mexico and Canada supplying our market so easily and readily.

At the same time we also have a relative isolation from pests and diseases, with our quarantine protection.

Australian high light levels also save on electricity and infrastructure costs of supplemental lighting.



If you would like to go on the PCA's next Overseas Study Tour, Please email secretary@protectedcroppingaustralia.com



Brinkman Horticultural products

- Bato clips (23 & 25mm)
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- Tomato pollinators & parts
- Truss arch, hooks & elastic
- Twine



Biobest Biological systems

- Bug-scan sticky traps
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Eclipse whitewash

- Eclipse F6
- EclipseLD
- Whitewash remover



Roskam Young Plants Pty Ltd

P.O. Box 44, Clarinda, Victoria 3169
 Mobile: 0418 356 937 Fax: (03) 9551 0217
www.roskam.com.au job@roskam.com.au

