



SOILLESS

A U S T R A L I A

Protected Cropping Australia Industry Trade Magazine Vol 1 2018 Summer
Since 1990 www.protectedcroppingaustralia.com



Explore our recipe for growth.

Phil Pearson
APS Salads, Isle of Wight, United Kingdom

"APS Salads is the biggest producer of tomatoes in the UK. Our mission is to grow high-quality tomatoes all year round in an efficient yet sustainable way. We saw Philips Lighting optimized light recipes and knew it was time to switch to 100% LED. The combination of Philips GreenPower LED toplighting and LED interlighting improves climate control in the greenhouse. Thanks to low heat emissions we can use extra light, even on warm days. The Philips Lighting plant specialist gave us technical support and now we're growing healthier crops of tomatoes that taste phenomenal. **We've switched on growth.**"

innovation + you

Philips GreenPower LED toplighting

Philips GreenPower LED interlighting

#switchongrowth
www.philips.com/horti

Contents

- Biosecurity Alert Fruit Fly in Tasmania 4
- PCA Growers' Workshop in Western Australia 13
- Medical Cannabis Industry in Australia 14
- PCA Website Features 16
- Genetic Trigger Adding Branches to Plants 17
- PCA Chair's Report 18
- Commercial Aquaponic Systems New Book 21
- PCA Membership Subscription 22**
- Why Become a PCA Member? 23**
- Achmea Australia Greenhouse Insurance 25
- Berry Quest International 2018 28
- Hydroponic Farmers Federation Conference 2018 .. 30
- PCA AGM & EGM Notice 31
- Hort Connections 2018 32
- Control Technology for Substrate Production . 34
- Genesis Horticultural Solutions 36
- Hydroponic Melons 38
- Calendar, Classifieds & Advertising Rates 40
- CONTACT US: PCA Board of Directors 44**

FRONT COVER

PCA members Marcus and Anthony Brandsema have had to dump their precious cherry tomato harvest at a loss of \$6,000+ per day when the Queensland Fruit Fly was detected close by in Northern Tasmania.
Full story page 4



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 newsletter should be sent direct to the editor:
admin@protectedcroppingaustralia.com



South Pacific Seeds have been distributing quality vegetable seeds for the covered cropping and field growers across Australia since 1986 and is now one of the leading commercial seed companies in the Australian domestic market.

For your local greenhouse representative please contact:

Cordy Macdougall | 0409 001 179
National Product Manager High Tech Greenhouse
Technical Sales Representative VIC

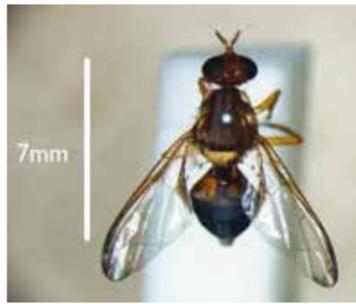
Carlos Azzi | 0418 674 471
National Product Manager Low Tech Greenhouse
Technical Sales Representative NSW

Daryl Schaefer (SA) 0472 863 319
Emma Wallace (WA) 0427 947 919
Val Moreno (QLD) 0418 798 728
Luke Murphy-Clarke (QLD) 0418 158 079

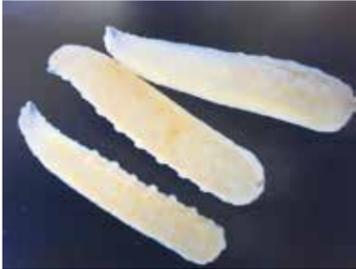
www.southpacificseeds.com.au

APEX GREENHOUSES

The New Name in Greenhouses.
APEXGREENHOUSES.COM.AU



Adult Queensland Fruit Fly



Queensland Fruit Fly larvae



Fruit Fly larvae in fruit flesh

Biosecurity Alert

Queensland Fruit Fly Restricts Tasmania's Market Access

At the time of going to print, the situation was getting worse every day in Tasmania.

PCA members, Marcus and Anthony Brandsema have unfortunately been caught up with the Queensland Fruit Fly outbreak in the Spreyton region of Tasmania, with devastating effect.

PCA empathises with all the growers affected, and send strong support for a quick action to rectify the situation.

This is a timely reminder of how fragile our produce is, in outbreaks of destructive diseases, and how quickly our market access can change.

Many lessons are being learned in Tasmania, including boosting Biosecurity Tasmania. *"We always need to be assessing our processes to ascertain if we are prepared for the worst and have our action plans in place"* says Nicky Mann, PCA Chair.

About Fruit Flies

Fruit flies cause enormous damage to fruit and some vegetable crops around the world.

They are unlikely to cause the same damage in Tasmania, but their presence at low levels may impede export trade. It is important for our horticultural industries that we keep fruit fly out of the state.

There are around 14 species of fruit fly of potential economic concern on the Australian mainland. The two that pose the most risk to Tasmania are:

- The Queensland fruit fly along the eastern seaboard and in the Northern Territory
- The Mediterranean fruit fly in Western Australia.

IMAGE: This map to the right shows the Exclusion Zone with restricted market access for produce, because of the Queensland Fruit Fly.

The area also covers the The 'Spirit of Tasmania' freight terminal connecting Tasmania and Melbourne, on the Australian mainland.

What is Queensland Fruit Fly?

A mature fruit fly is around 7 mm long and is reddish brown with some yellow markings (see image above).

You are more likely to see fruit fly maggots (larvae) than actual flies. Fruit fly larvae look like blowfly maggots. Mature fruit fly larvae are 8-11 mm in length and 1.2-1.5 mm in width. They are usually easy to see in the flesh of the fruit.

A key sign of fruit fly is a series of "stings" visible on the outside of the fruit. A "sting" is a puncture mark caused when a female adult lays eggs into the fruit.

If you open up the "sting" carefully with a sharp knife, you should see a cavity containing eggs or the debris of hatched eggs - you would probably need a magnifying glass to see it.

The number of maggots (larvae) in a single piece of fruit varies from as little as 1 to more than 60, however typically we would expect to find 4-20 maggots in each piece of infected fruit.



Keeping Tasmania Fruit Fly free

Tasmania's fruit fly free status is recognised by key overseas countries. This status give Tasmanian exporters competitive advantage in key markets such as Japan, Korea, USA, Taiwan and China.

For many years, the belief has been that fruit fly would not survive a Tasmanian winter.

However, even a temporary summer population of the pest can disrupt fruit exports. Any degree of trade disruption by the possible loss of preferential fruit fly area freedom, is undesirable for growers.

Continued next page

Harvest The Sun: Hedge Your Energy Costs

gravitas energy

your sustainable energy partner.

Get in touch today for a free energy assessment

Roman Voloshin Ph 0402 318 973
roman.voloshin@gravitasenergy.com.au
6/1 Graham Rd Clayton South, VIC 3169
262 Argyle St Hobart TAS 7000
gravitasenergy.com.au



Lifting quality, lengthening growing season and increasing yield.

For more information please call

Alan Bissett on +64 272 711 594

Landline +64 6 3777 355 or email alan.bissett@haygrove.co.nz

WWW.HAYGROVE.COM

Two centuries of innovation. A lifetime of success.



Quator - Bright, Glossy Green Oakleaf

- + Very uniform Oakleaf lettuce best suited to warm season plantings
- + Medium/dark green colour with an attractive fresh gloss
- + Well balanced head with good vigour & potential weight
- + Strong tolerance to tipburn & bolting
- + Suitable for open field & hydroponic growing
- + Full resistance package : BI:16-32/Nr:0

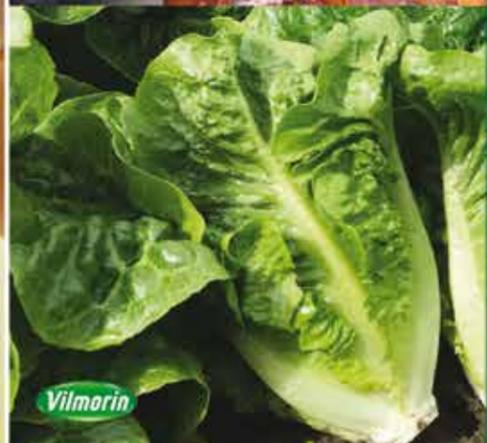
Vilmorin



Eglantine - Vigour with Adaptability

- + Adaptable dark red Oakleaf suited to both hydroponic & open field production systems
- + Large adaptable & extremely vigorous variety suitable for AYR production in most regions
- + Well balanced plant, early filled & early maturity
- + Erect plant habit, clean base & uniform shape & size
- + Strong resistance package : BI:16-30, 32,33/Nr:0

Vilmorin



Yambu - Twin-Pack Mini-Cos

- + Very erect plant with excellent uniformity
- + Great dark green colour with slight savoy leaf texture
- + At it's best in the warm season, slow bolting with thick leaves
- + Strong resistance package : BI:16-29,32/Nr:0

Vilmorin

Biosecurity Alert continued



Staff at Brandsema Hydroponics have had to dump perfect cherry tomatoes because they are inside the Fruit Fly Exclusions zone. Screenshot from ABC video on YouTube by Cordell Richardson

The Cost of Fruit Fly

The cost of fruit fly to producers where it exists on the mainland is substantial. That cost includes:

- Loss of product due to infestation
- Restricted market access for product from within the biosecurity area (typically 15 km radius of an infested property)
- Costs of an eradication program (typically baiting)
- Costs of ongoing insecticide use
- The loss of any market premium that goes with post-harvest fumigation of exported fruit.

It is estimated that Tasmania's fruit fly free status adds tens of millions of dollars a year to the export income earned by Tasmanian horticultural industries.

Fruit Fly Spread in Tasmania

Biosecurity Officers are now visiting local markets to check out what is being sold.

They have found fruit fly infected produce in Wynyard (apricots) and 5 kilos of produce were seized from a passenger flying in from Flinders island early in February.

Tasmanians have expressed their anger at such "selfish" behaviour on behalf of stall holders and travellers.

Fruits that could be stung by fruit fly are tomato, capsicum, raspberry, strawberry, blackberry, mulberry, cherry, fig, apple, apricot, lemon, loganberry, nashi, nectarine, passionfruit, peach, pear, plum, quince.

Continued next page

Important: The descriptions, illustrations, photographs, advice, suggestions and vegetation cycles that may be presented herein are aimed at experienced professionals and are derived from observations made in defined conditions on various trials. They are offered in all good faith, for purely informational purposes, and shall not therefore, under any circumstances, be held to be exhaustive, be taken as any form of guarantee of harvest or performance, prejudice specific factors or circumstances (either current or future), and more generally, form any kind of contractual undertaking whatsoever. The user must first and foremost ensure that the exploitation conditions, local geographical conditions, the planned growing period, the soil, the means at his disposal (such as technical knowledge and experience and cultural techniques and operations), his resources (such as sowing and control methods) and his equipment, and more generally his agronomical, climatic, sanitary, environmental and economic context are suitable for the crops, techniques and varieties that are presented herein. All the varieties illustrated in this publication were photographed in favourable conditions and no guarantee can be provided that results will be identical under different conditions. All reproductions, whether in part or in whole, of this publication for the medium and/or the content, in any form whatsoever, are strictly forbidden, unless specific prior permission is granted. Non contractual photographs - All rights reserved - © 2017 HM-CLAUDE

Graeme Smith Consulting

- + Project Management
- + Greenhouse and Hydroponic System Design
- + Climate & Financial Studies (inc. ROC & EBIT)
- + Training in Commercial Hydroponic Crop Production
- + Greenhouse Growers Toolbox App

www.graemesmithconsulting.com

Graeme Smith (CPAg) Graeme Smith Consulting
PO Box 789, Woodend 3442 Victoria, Australia
Ph: +61 3 5427 2143 Mobile: +61 0 427 339 009
Email: graeme@graemesmithconsulting.com

Certified Practising Agriculturist (CPAg).
Accredited member of: Australian Institute
of Agricultural Science and Technology &
Australian Association of Agricultural Consultants.