Horticulture Innovation Australia

Final Report

Apple and Pear Industry Communications

Sophie Clayton Apple & Pear Australia Limited (APAL)

Project Number: AP12013

AP12013

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Summary

Apple and Pear Australia Ltd (APAL) has completed delivery of the *Apple and pear industry* communications project (AP12013). The project ran from 1 October 2012 to 30 November 2015.

Project outcomes included:

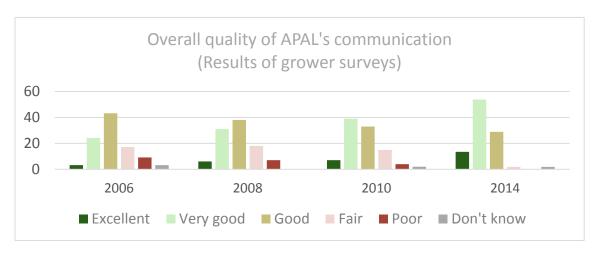
- Industry website upgrade, maintenance and ongoing additions.
- Australian Fruitgrower magazine upgrade and monthly publication.
- Social media content sharing and engagement (Facebook, Twitter and LinkedIn).
- Weekly e-newsletter production of *Industry Juice*.
- Media monitoring, engagement and training.
- Annual grower roadshows and grower engagement.
- State partner meetings and engagement.
- Industry collateral and image library (Flickr and YouTube).
- Grower survey (2014) and mid-term project review.

The project's mid-term review across each communication channel concluded that:

- Australian Fruitgrower was "very well-received".
- *Industry Juice* e-newsletter provided a "good industry snapshot on a weekly basis to a large number of stakeholders".
- Traffic to the APAL website had "more than doubled in the past year" (Jan Dec 2014).
- The daily email news alert was useful and 'open' and 'click' rates were above average.
- Media releases were reactive, well written and distributed effectively.
- Social media engagement on Facebook was "engaging and appropriate".
- Stakeholder feedback showed that APAL's grower events and roadshows were seen as pivotal to engagement with growers on the ground.

The review also provided some useful feedback to improve performance of the communication program – much of which was adopted in the second half of the program.

APAL's 2014 survey quizzed apple and pear growers and industry stakeholders on all aspects of APAL's communication under this project. Overall it showed that APAL's audiences had seen an improvement in communication services and a higher ranking of APAL's communication performance compared to previous years.



Introduction

Apple and Pear Australia Ltd (APAL) was contracted to deliver the *National apple and pear industry communications* (AP12013) program funded by Horticulture Innovation Australia Ltd (HIA) (previously Horticulture Australia Ltd), for the period 1 October 2012 to 1 October 2015 with an extension through to 30 November 2015.

The program sought to refresh the *Australian Fruitgrower* magazine, rebuild the industry website (www.apal.org.au) and more generally renew communication tools. Following this, the project was to focus on managing a variety of channels used to communicate with growers and the supply chain including the website, social media, *Australian Fruitgrower* magazine, newsletters, media monitoring, grower road-shows, consultation with State grower organisations and development of industry collateral.

The project was initiated and developed by APAL Industry Services Manager Annie Farrow and the then APAL Communication Manager Sarah Kulman. Sarah led the project from its start in October 2012 through to the end of 2013 when it was taken over by the new Communication Manager Sophie Clayton in January 2014. APAL Communication Officer Richelle Zealley has been a consistent member of the project team.

Methodology

To deliver the communications services and products of this project APAL appointed a Communications Manager who oversaw the project's delivery including all outputs with the assistance of the Communications Intern (later the Communications Officer).

Every year, the Communication Manager developed an annual operating plan to further guide activities that would be completed every year to fulfil the project's milestone objectives, including delivery of the outputs of the *Australian Fruitgrower* magazine, *Industry Juice* newsletter, website, media, social media, annual grower roadshows, state meetings and collateral image library.

The Communications Manager together with the Communications Intern did all the work to deliver, to produce all the outputs and managed sub-contractors where required.

Other input was continually received from Hort Innovation, APAL staff and Board, via the mid-term review, grower surveys and changes in personnel to ensure the latest communications ideas and expertise was used to deliver the project.

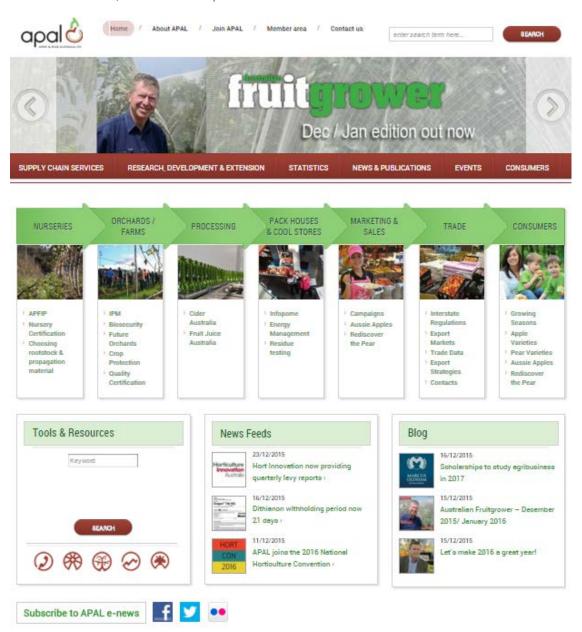
Outputs

All anticipated outputs of this project have been successfully delivered, with the exception of the HIN search facility that was recognised early on as not being necessary. Minor changes were implemented along the way to improve services and keep up with changing communication opportunities to ensure the best outcome for growers.

Website

A new industry website (<u>www.apal.org.au</u>) was successfully developed and subsequently launched in July 2013. The new design allowed for increased content to be added quickly and for grower content to be organised in libraries, such as the Future Orchards® library. This significantly improved the availability of technical content on the website.

APAL's new website, launched in July 2013.

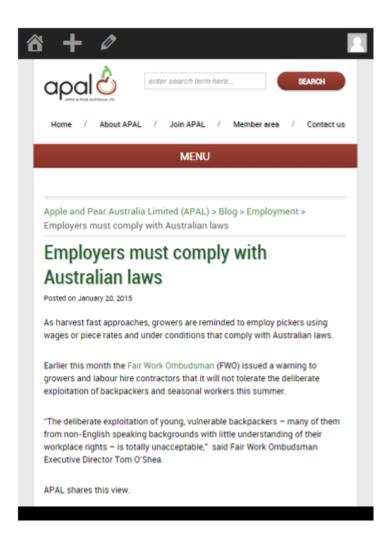


At the beginning of 2014, a new approach to content development was established that saw all *Industry Juice* and *Australian Fruitgrower* articles added to the website as individual posts allowing them to be accessed and shared more quickly and more widely. This approach also ensures that new content is added frequently ensuring the website remains vibrant and current with new and relevant information for growers and the industry.

New content is added nearly every week to the APAL website with an events page kept constantly updated and new banners and pop-ups added to promote particular news, features or events.

In 2015, the website was made mobile responsive so that content could be more easily viewed on smartphones and tablets.





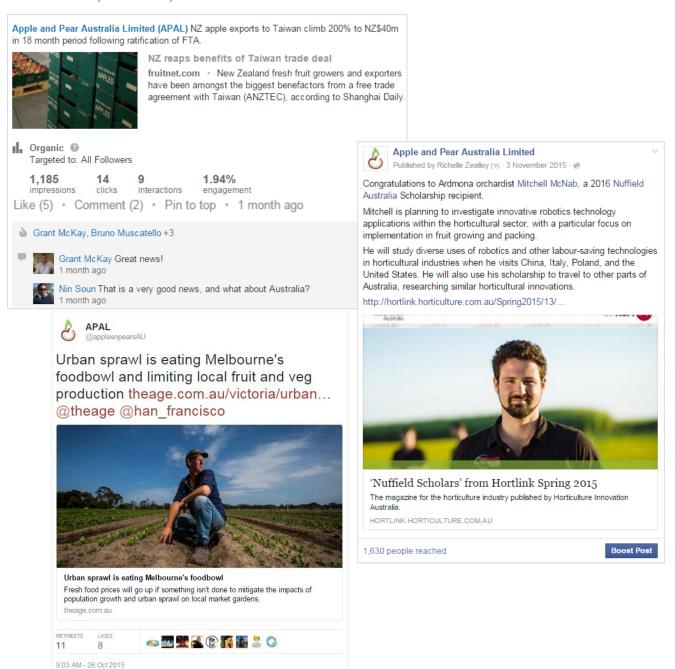
New mobile (left) and tablet (above) layouts for the APAL website, launched in January 2015.

Social media

APAL has successfully established social media accounts across <u>Facebook</u>, <u>Twitter</u> and <u>LinkedIn</u>. These are being actively used to engage with our audiences to share news and build online relationships and communities, and industry awareness and responsiveness. Typically APAL tweets between five and ten times a day and posts four to six times each on Facebook and LinkedIn a week.

APAL does not only share our own news but also looks at news from a variety of other sources to ensure our audience gets a full scope of relevant ideas and news internationally and locally. We also actively engage with other users, liking posts, sharing, asking questions and commenting.

Some examples of APAL's social media posts across LinkedIn (top left), Facebook (middle right) and Twitter (bottom left).



Australian Fruitgrower

Australian Fruitgrower magazine has been published 11 times each year of this project (monthly with a join December/January edition. The project funded 32 pages of production but in most cases the magazine produced was 36 pages.

As part of this project, APAL redesigned the magazine giving it a fresh new look inside and out. Front covers have become much more people-focused and typically are of the person featured in the grower profile. One feature of the new front cover design has been that more women have appeared on the cover ensuring that the magazine both represents and appeals to more members of our industry.

Grower profiles are also now a standard fixture in the magazine. They seek to showcase the diversity of people in our industry, the different approaches to challenges, the successes businesses are having, and to use as a way to communicate key messages of importance to our industry – like ways to increase exports.

A selection of Australian Fruitgrower covers from 2012 (left) and 2015 (right).

















The redesign has continued to ensure that a whole range of other projects funded by the apple and pear R&D and marketing levies are featured in the magazine to communicate to growers the wide range of ways their levy is invested. For example, articles from the following projects have been featured:

- Asia Fruit Logistica
- Asian market access study tours
- Aussie Apples and Australian Pears marketing
- Australian Pome Fruit Improvement Program (APFIP)
- InfoPome
- Future Orchards®
- National Residue Survey
- Market development
- Plant Health Australia / Emergency Plant Pest Response Deed
- Prevar[®]
- Productivity, Irrigation, Pests and Soils (PIPS) program
- Profitable Pears
- Understanding apple and pear production systems in a changing climate

Moreover, APAL covers news and features beyond levy-funded work and shares marketing and research and development ideas from other national partners and internationally to ensure growers get all the latest information to help them make improved business decisions and keep up with the latest technologies for the industry.

Prior to 2014 the magazine was available as a whole pdf on the APAL website, but in 2014 APAL took another step to improve online publication by ensuring each individual article was accessible online. This has greatly improved accessibility and feedback we have received indicates that many subscribers are reading content online first – making it more timely and relevant.

In 2015, APAL comprehensively reviewed its hard copy *Australian Fruitgrower* subscriber list with the explicit intention to remove non-target recipients and to add more target recipients. In particular APAL wanted to add more staff of fruit growing businesses to the mailing list as well as agronomists and other service providers. The hard copy subscription list is currently around 900.

E-newsletters

Under this project APAL was to manage three existing and proposed e-newsletters: APAL e-News, Apple and Pear World News and an intelligence report.

By August 2012, APAL had re-launched it fortnightly APAL e-news as *Industry Juice*. It was, and still is, distributed via the online mailing platform Mailchimp, which provides better performance metrics and better subscriber management. By October 2013, APAL made the decision to distribute Industry Juice weekly, which it has done ever since without any drop in subscribers or 'open' and 'click' rates.

Apple and Pear World News was distributed weekly via pdf attachment up until January 2014 when APAL decided to distribute daily media clips of interest to the industry also using Mailchimp allowing subscribers to choose just the daily clips or both the daily clips and the weekly Industry Juice. A summary of the top industry news is also compiled in Industry Juice.

APAL decided against producing another newsletter in the form of the originally proposed intelligence report. Upon further assessment it was realised that the investment for this intelligence reports was best directed to gather and analyse the industry data and statistics due to the scarcity of reliable and comprehensive industry data – and then share that data through Industry Juice and APAL's other existing communication channels.

An updated statistics page has also been developed for the APAL website as well as a range of articles that incorporate improved industry data.



New Federal minister dedicated to horticulture

ster, Assistant Minister for Agriculture and Water Resources Senator Anne Ruston, we look forward to working together.

Read more...



APAL to help with marketing

APAL will be working with Hort Innovation over the coming weeks on the apple and pear marketing program while they recruit and induct a new marketing manager for apples and pea

Read more...



SA netting cost benefit calculator

APGASA have developed a netting cost benefit calculator for Adelaide Hills growers, the spreadsheet shows information based on different blocks, netting types and projects 20 years forward.

Read more...





- Industry hails damaged fruit marketing campaign
- Orchard robotics become a reality Levy system must be accountable
- APAL to step in and help with marketing
- Mystery over migrant worker's death

To view all APAL's weekly news items visit our twitter feed or subscribe to receive daily media clips in your inbox

12-15 Nov: Taste of Melbourne, Melbourne, Vic

12 Nov: Freshcare AGM, Sydney, NSW 19 Nov: Fruit Growers Victoria AGM, Benvick, Vic

For a complete list of events and important diary dates of interest to the apple and pear industry visit the <u>APAL website</u> or <u>submit an event</u>.

APAL sponsors and partners







Contact APAL



one: +61 9329 3511 info@apal.org.au www.apal.org.au









An example and sample of *Industry Juice* from 2015.

Media monitoring, engagement and training

Over the course of the project, APAL has continued to engage with media, putting out media releases, sharing news stories, developing 'hot topic' fact sheets and actively responding to media enquiries. While APAL has maintained the traditional media release, we have also extended our news across general daily news items posted on our website and across social media where the media can also find them.

A total of 19 traditional media releases were distributed via email between January 2014 and December 2015. And two hot topics designed to share information about controversial topics were added to the APAL website on storing apples and NZ apples in Australia.

APAL also conducted media training in 2014 for six staff and industry members to help them communicate more effectively with the media.

Examples of APAL media coverage.





Fruit fly top obstacle for apple export

WA Country Hour By Bridget Fitzgerald



goodfood

Granny Smith apples are good for gut health, study finds

October 5, 201





A 'Watts in Your Business' energy-saving walk was held at Rocky Varapodio's OzPac Australia fruit packing shed at Ardmona on Wednesday.



Annual grower roadshows

Every year APAL has organised grower roadshows where the CEO and the Chair have travelled to each major apple/pear growing region to meet with growers and the local State APAL director. This has typically included a dinner or group event with all local growers invited with anywhere from 5 to 20 and up to 30 people attending. These are complimented by a series of one-on-one personal meetings with four to five local individual growers on their property. Each time the roadshow is run in the same region, different individuals are met for the one-on-ones to ensure ongoing growth in understanding of the different growers.

These meetings are critical in ensuring growers can develop a relationship with APAL's Chair and CEO so that issues can be communicated and opportunities developed. It also ensures the Chair and CEO observe directly what is happening in the industry.

During the grower roadshows APAL also engages with local media to ensure growers and levy-payers who can't participate have another means to hear about the visit and to generally promote the industry and the work being done to support it.



Left: APAL Chair Michele Allan (It) and APAL CEO John Dollisson (rt) meet with orchardist Michael Smart (centre).

Bottom left: Michele and John meet with Tasmanian growers Dane Griggs (second from left) and Brett Griggs (rt).

Bottom right: John (lt) and Michele (centre) meet Batlow Cooperative members at their packing shed.





State Meetings

The Pome Fruit State Association meetings aimed to bring together key staff from the different state associations with APAL and HIA staff to share updates, discuss issues and identify ways to be more successful.

Four in-person state meetings have been held as part of this project.



Participants at the pome fruit state association meeting (5-6 March 2015).

Left to right back row: Barney Hyams, Tony Filippi, Olivia Tait, Kath Boast, Phil Pyke, Jennifer Shillabeer, Christine Walker, Kevin Dodds, John Dollisson. Right to left front row: Richelle Zealley, Sophie Clayton, Annie Farrow, Susie Green, Nardia Stacy.

Collateral image library

APAL has significantly built on its photo collection / image library since the start of this project. Moreover, APAL has established an account with <u>Flickr</u> in January 2014 that currently has over 1,800 photos.

APAL's photos on Flickr are all given descriptive titles making them easy to find via keyword and they are organised into relevant albums to further assist users find relevant images that may be useful. To maximise their usage, APAL's photos are actively shared under a Creative Commons license which also ensures due acknowledgement. As a result of these efforts, APAL's photos are appearing in media outlets.

In addition to photos we are also building up a collection of videos on YouTube – including a number of videos we have taken the initiative to develop ourselves. And we are sharing short clips on Vine where we can share them on Twitter.

Mid-term review

APAL appointed Cox Inall to undertake the mid-term review of this project (AP12013). The mid-term review was a requirement of HIA, who helped identify the terms of reference and approved APAL's choice of consultant.

Cox Inall did the following:

- Assessed APAL's communication channels.
- Conducted interviews with stakeholders including growers, service providers, media and others along the supply chain.
- Considered the data from the online survey.
- Submitted a preliminary communication audit.
- Completed the final review.

Some recommendations across the different channels included:

- Look for ways to group online content of Australian Fruitgrower magazine by topic to make content easier to find and reduce hard copies to six issues a year in time.
- Promote Industry Juice newsletter more widely and provide unique content.
- Redesign the APAL website in consideration of an analysis of web state to make sure the home page is mobile responsive and add more video content.
- Develop a pro-active media strategy

Outcomes

Through delivery of the project outputs, APAL has met its overarching aims of the project to:

- Improve the quality and flows of information within the industry to improve decision making across the supply chain.
- Build the capacity of the apple and pear industry particularly with respect to the capture, analysis and dissemination of information on which commercial decisions are made.

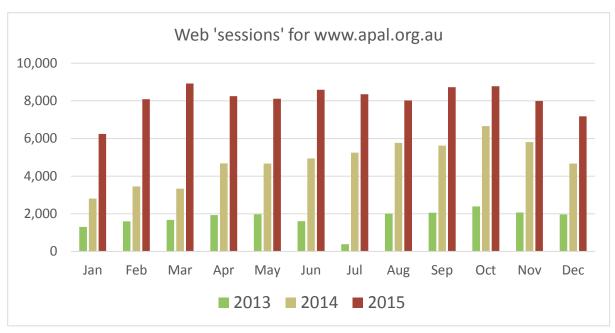
The integration of this project with all other industry projects including those funded and not-funded via Hort Innovation demonstrate the power of communications designed to service an industry. It has enabled this project to source content and information from local and international technical experts to share with growers to build their knowledge and capacity.

The APAL website has become a massive repository of a wealth of industry information that is available for growers to use as they make their business decisions. The information shared covers all aspects of the supply chain from the nursery to the orchard and packing shed, through to marketing and employment. Social media has also proven an excellent way to open two way engagement between APAL and growers, as have the grower roadshows.

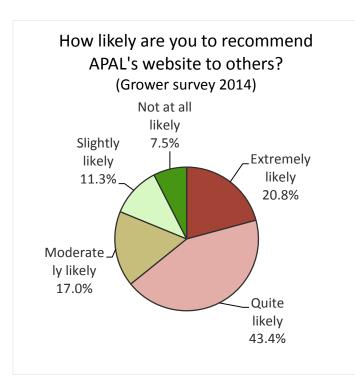
As part of this project, APAL has also spent time promoting both HAL and Hort Innovation. APAL has briefed levy payers on Hort Innovation's R&D and marketing programs and structural changes, and has actively encouraged and promoted Hort Innovation membership to foster the joint and collaborative role between Hort Innovation and APAL.

Website

APAL has successfully and consistently been increasing the number of visits to the website. In 2013, the average number of sessions per month was less than 2,000 and in 2015 it was more than 8,000 – a significant improvement.



The most popular pages are the consumer-facing pages, which is unsurprising given that there are many more consumers who may find our website than apple and pear growers and the entire

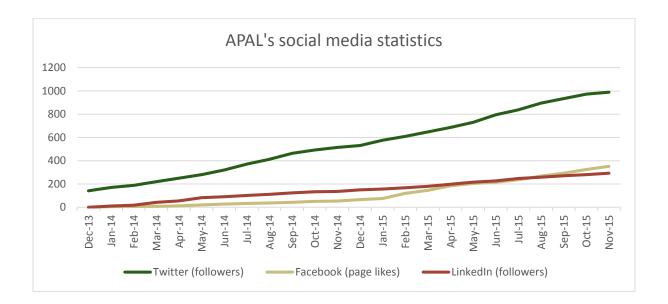


industry in Australia. Google analytics shows that the most popular content for the industry content is the <u>Statistics</u> page, <u>Australian Fruitgrower</u> landing page, and then a mix of technical content related to the Future Orchards® and Intensive Pear Production projects.

Results from the 2014 grower survey showed that 71.2 per cent of respondents from the industry found content on the APAL website as 'moderately' to 'extremely' useful, which is good, but there is still room for improvement. Plus, more than 50 per cent of respondents had used the APAL website in the last two weeks with Future Orchards content being noted as popular and helpful in comments.

Social media

At the end of November 2015, APAL had 352 Facebook 'Likes', 990 Twitter 'Followers', and 293 LinkedIn 'Followers'. APAL has had consistent growth across all three platforms from a zero starting base at the beginning of the project.



Compared to other leading industry representative bodies, APAL is performing well across social media. It is also the only one covering all three platforms and its followers are comparable in number:

	Twitter	Facebook	LinkedIn
Australian Banana Growers' Council	NA	505	NA
Citrus Australia	774	NA	NA
AUSVEG	1,725	NA	303
APAL	1,073	434	308

^{*} Note that counts were taken on the same day on 11 January 2016 for consistency.

In the Cox Inall mid-term review of this project their observations of APAL's Facebook account were:

"The posts are visually engaging and appropriate for a Facebook audience, with a good mix of images and text, with links that drive people back to APAL's website and other websites."

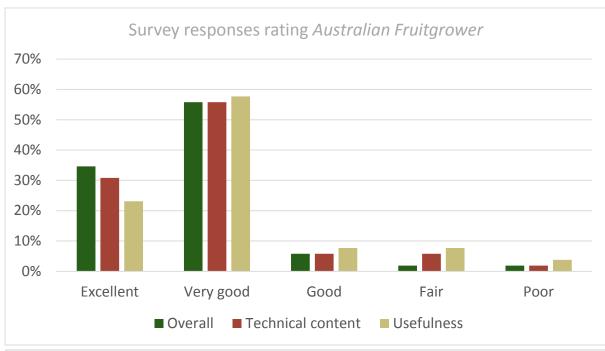
They made a similar comment about APAL's LinkedIn engagement and added in regards to APAL's Twitter account that:

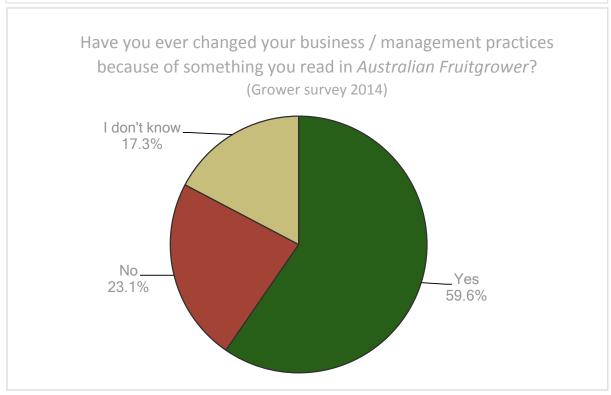
"APAL engages well and frequently with producers, reporters, advisors by 'tagging' users in tweets. Twitter is also being used effectively to promote outputs and drive audiences back to APAL's website."

Australian Fruitgrower

According to Cox Inall's evaluation of *Australian Fruitgrower* based on interviews with stakeholders, the magazine was "very well-received by industry stakeholders".

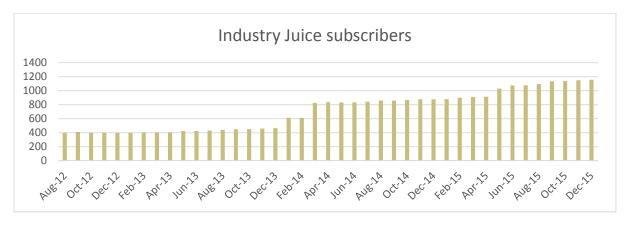
In the 2014 survey, an astounding 34.6 per cent of participants said they read "all" of the magazine and another 46.2 per cent said they read "most" of it. Also, 28.8 per cent of respondents said that the magazine had "improved a lot", 44.2 per cent said it had "improved a little", 15.4 per cent said it had "remained about the same", and no-one said it was worse.





E-newsletter

Subscribers started out at just under 400 at the beginning of the project and when *Industry Juice* was first published. By the end of the project in November 2015 subscribers had exceeded 1,100. This is an excellent result noting that the Mailchimp system requires a double-opt in from subscribers and permits subscribers to unsubscribe at any time. People must therefore personally add themselves — meaning the subscriber numbers are a good reflection on who actually wants the content. Continued growth in a relatively limited market is a good indication.



Mailchimp also allows APAL to assess the number of people who are opening *Industry Juice* and the number of people who are interested enough in a story to click through to read more. Our open rates indicate that in 2015, an average of 42 per cent of recipients opened *Industry Juice* emails – nearly twice as good as the industry benchmark reported by Mailchimp of around 22 per cent. Moreover, 21 per cent clicked through to content.

Cox Inall evaluated *Industry Juice* in its review stating that:

"Industry Juice is brief and gets to the point without requiring a lot of reading time, providing a good industry snapshot on a weekly basis to a large number of stakeholders."

And,

"Industry Juice is well received by industry stakeholders, who can pick and choose the headlines they want to read. While it is competing with a lot of other industry e-newsletters, overall stakeholders interviewed found the format clean and information is relevant, which keeps people engaged."

Media monitoring, engagement and training

Counts on media clips that mention APAL specifically have been variable between January 2014 and December 2015. Peaks sometimes relate to APAL's active media outreach or may be the result of a topical issue about apples getting media coverage and APAL's response to that.

Most importantly, media coverage is continuing in regional newspapers and radio in apple and pear growing regions, which are our target locations. Interestingly, an industry story that received major attention – pear juice as a cure for hangovers – was generated by APAL due after APAL shared the story with the ABC. But because the focus was on the topic, not the original source, APAL was rarely mentioned in follow-up stories – instead CSIRO was mentioned who did the research. APAL

considers this a media success as the important point – the industry research and the health benefits of pears – was widely communicated.

Subscribers to APAL's traditional media releases have increased from a starting point of 670 in January 2014 when APAL switched to using Mailchimp to 760 at the end of 2015.

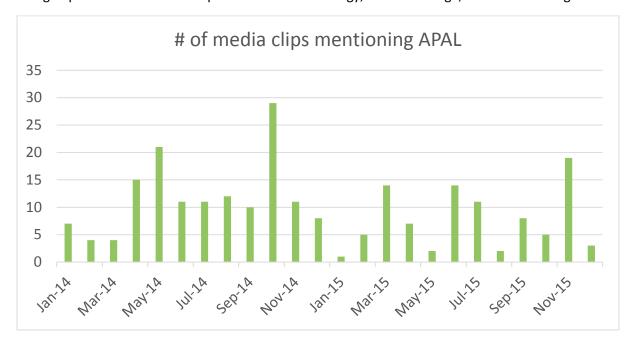
As part of its mid-term review Cox Inall interviewed key media of relevance to APAL and reported on that feedback as follows:

"Media interviewed by Cox Inall generally felt that when APAL has something to say, it's good and hits the mark."

And,

"APAL's content is very strong in discussing R&D and providing technical information to the industry."

Recommendations made by Cox Inall to improve APAL's media relations and media work are now being implemented to ensure a pro-active media strategy, event coverage, and issues management.



Annual grower roadshows

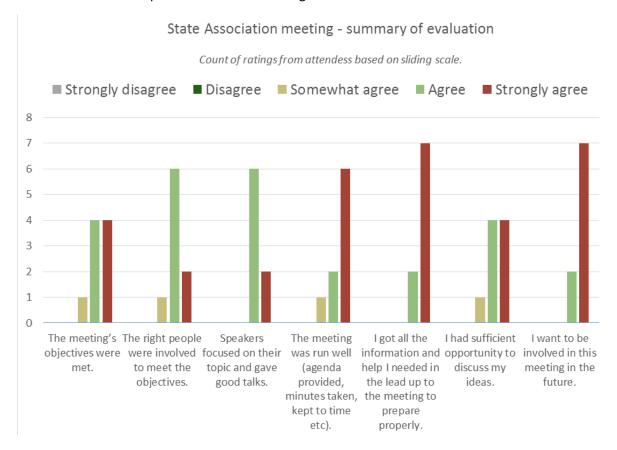
Participation in the grower roadshows is always strong with some regions, such as Stanthorpe (QLD), showing outstanding engagement and other regions, such as Shepparton (VIC), with lower participation in the group events. The one-on-one meetings are always in demand with different growers are always willing to host and welcome the APAL Chair, CEO and local State director.

Cox Inall noted this in their review:

"It is clear from the stakeholder interviews that grower events and roadshow are seen as pivotal to APAL's engagement with growers on the ground."

State meeting

At each State association meeting there was always excellent attendance and good participation and discussion. Evaluation forms were distributed at the end of the state association meeting held in March 2015 that showed the level of satisfaction with the meetings was very good while identifying areas that could be improved for future meetings.



Collateral image library

The quality of APAL's photos has helped to boost the quality of the Australian Fruitgrower magazine, Industry Juice and the APAL website. Views on some photos are in the thousands, with many attracting numerous 'favorite' tags - they are also being used by the media and helping communicate industry news and updates.

One of the more popular photos from APAL's Flickr account (top lt), one that has been used by the media (bottom lt) and a photo of an apple grower meeting the Prime Minister which proved popular on social media (bottom rt).



TECHTIMES PERSONAL TECH BIZ TECH FUTURE TECH SCIENCE LIFE T-LOUNGE Granny Smith apple a day, can keep obesity at





bay: Study

Apple and Pear Australia Ltd.)

obesity-related medical disorders at bay

Obesity is on the rise in the U.S. and government health agencies are spending a lot of money each year to combat medical conditions that arise due to obesity such as type 2 diabetes, heartrelated diseases as well as cancers. The U.S. Centers for Disease Control and Prevention (CDC) reveals that more than 33 percent of Americans are obese. A major chunk of the young population between the age of 12 and 19 years are also obesi

Researchers at the Washington State University suggest that non-

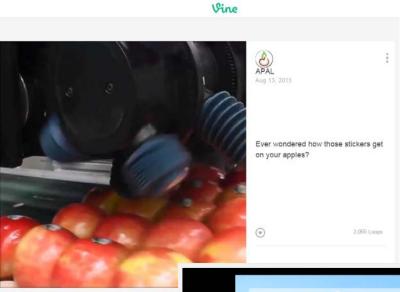
Published by Sophie Clayton [?] - 15 October 2015 - @ PHOTO of the day - when Tassie apple grower Howard Hansen met Prime Minister Malcolm Turnbull. At the Flavours of Tasmania event in

Apple and Pear Australia Limited



2,395 people reached

APAL's videos on YouTube and Vine are also demonstrating success at reaching online audiences.



An example of a popular APAL video that has been viewed more than 2,000 times (bottom), plus an example of sharing a short clip on Vine that has been looped more than 2,000 times (left).



Mid-term review

The mid-term review provided an adequate assessment of APAL's communication services with a suite of useful recommendations. APAL assessed each recommendation and considered its implementation carefully.

Following the mid-term review, combined with the grower survey results and an internal assessment of performance, a number of changes were implemented both in the final stages of delivery of the project and in the development of a new communications project that should deliver even better outcomes for growers.

Evaluation and discussion

The individual evaluations summarised in the Outcome section of this report for each project output helps to build a picture of the overall project's success. Combined with the positive results of the 2014 grower survey and the mid-term review the project can claim to have proven successful in its delivery of agreed outputs and the overarching aims.

Moreover, the project has been delivered well within budget with substantial savings achieved and a number of new innovations have been accommodated at no additional cost – such as video development. This is testament to APAL's broad capacity, knowledge and practical skills across a range of communication fields and excellence in service-delivery. APAL's close relationships with growers, unique grower and industry database, expert technical knowledge of apple and pear production and the industry, and broad connections across the industry have also contributed to the performance of APAL's communications work under this project.

Importantly, through the delivery of this project APAL has actively sought to work closely with other industry partners and supported them in their communications efforts. Fostering collaboration and good will among different businesses and across the industry.

Recommendations

APAL has already implemented most of the recommendations of the mid-term review.

As a result, a new project proposal was submitted to Hort Innovation with all the new recommended processes and practices incorporated in it including:

- Ongoing publication of *Australian Fruitgrower*, including six hard copy editions a year and improved web presence.
- Upgraded media engagement to be more active in media relations and to improve capacity to address issues.
- Ongoing weekly publication of *Industry Juice*.
- Improved APAL website to organise content better to make it easier to find and to include more industry data.
- Development of videos including grower interviews and issue-based videos.
- Ongoing engagement in social media across Facebook, Twitter and LinkedIn.

This new project, *National apple and pear grower communications program* (AP15007), has been approved by Hort Innovation for three years, from 1 November 2015 through to 31 October 2018.

APAL also recommends that grower roadshows continue as they have proven to be highly effective and were externally recognised as being highly successfully and important to grower engagement. APAL also recommends that State Meetings continue to foster efficiencies and sharing of knowledge and best practice among State association partners.

Acknowledgements

APAL would like to thank apple and pear growers for their ongoing support, Hort Innovation for funding for this project, and to all our other valued partners across the industry – this project could not have been delivered without you.

Appendices cover page

- Appendix 1: Key results from the 2014 grower survey on APAL's communications work
- Appendix 2: Australian Fruitgrower, Nov 2015
- Appendix 3: Industry Juice, 25 November 2015

Appendix 1: Key results from the 2014 growwork	ver survey on APAL's communications

Survey results



Previous surveys

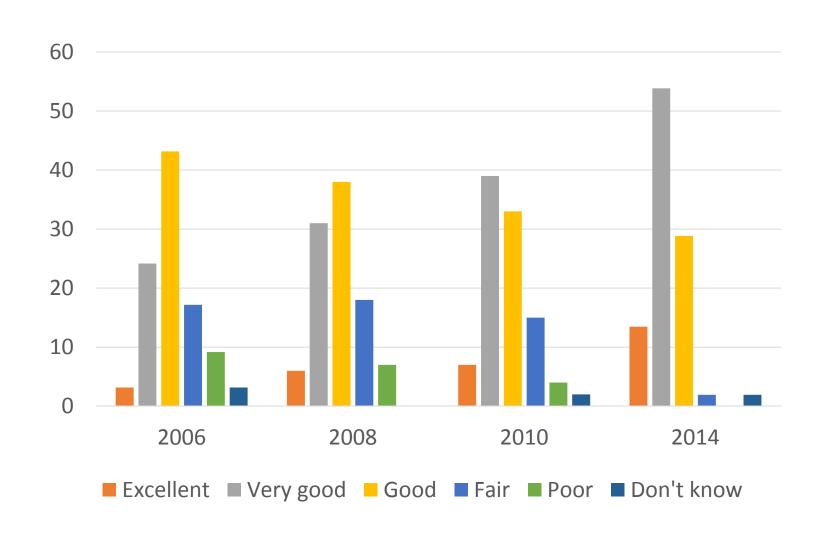
- Done in 2006 (180), 2008 (140) and 2010 (140)
- & All done via phone, very expensive (Cost of 2010 survey was \$30,000)
- 6 Covered more than communication (eg. PIPS, Future Orchards, orchard data)
- Communications part of survey covered only Australian Fruitgrower, overall communications and website

2014 survey

- Less people surveyed (140+ but not everyone answered every question)
- Done with significantly less money
- Many more questions covering web, Industry Juice, AFG, website and social media
- 6 Growers and non-growers surveyed
- Not always a direct comparison
- Mostly online (with some prompted over phone and via hard copy in magazine)
- Much better data about website via google analytics
- Much better data available via Industry Juice (Mailchimp) distribution data

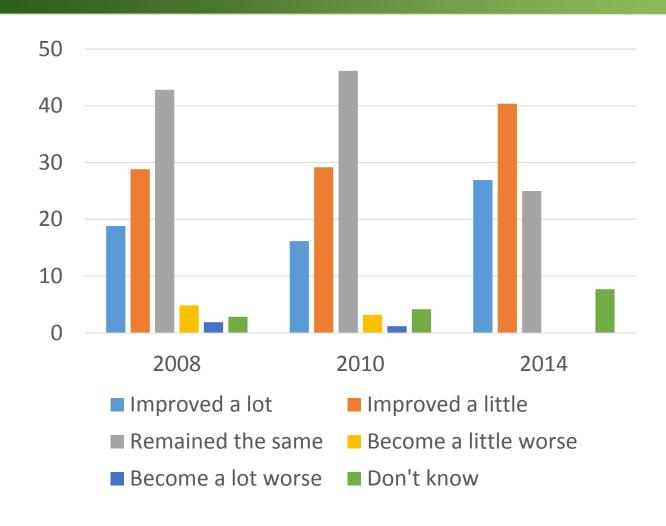
Overall quality of APAL's communications





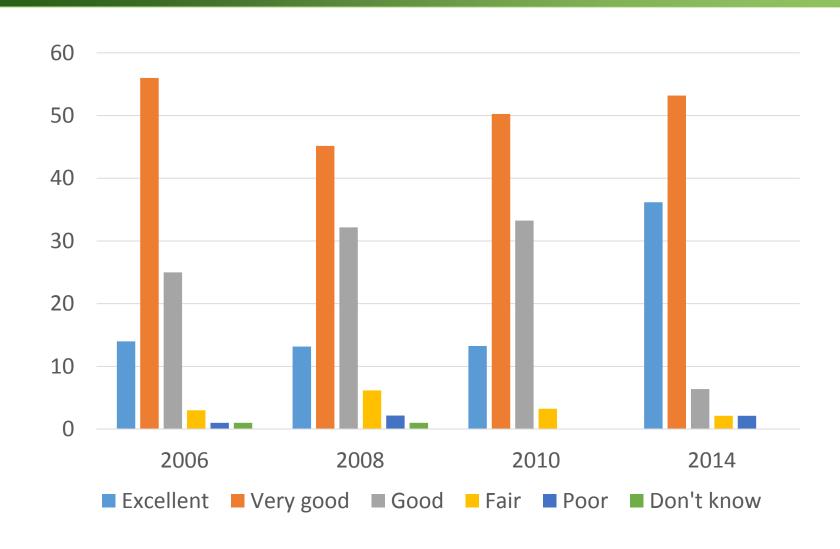
Change in APAL's overall communication





Overall quality of Australian Fruitgrower





Other points of interest



Website

- Website statistics show around doubling of website traffic in last year
- But 36% of people found only "a bit" or none of what they were looking for
- 28% found our information "somewhat" or "not at all useful"
- 74% didn't visit or didn't know about the member area (benefits not clear)
- Future Orchards noted as popular in comments
- 13% accessing site on smartphone or tablet (design opportunity)

Australian Fruitgrower magazine

- 86% still get the hard copy magazine and 81% read all or most of the articles
- Generally rating very well across usefulness, technical detail and information
- 60% have changed business practice because of something they read
- Most value the magazine between \$5 and \$10.

Some comments



About the magazine

Keep it in the magazine - I don't want to read anything else on a "screen".

Machinery reviews, ie platforms, sprayers, tractors etc; and information about new techniques, some growers have adopted new and more efficient ways to combat repetitive tasks

I would appreciate more detail in feature grower stories if they are willing, eg successes they have had with certain chemicals/machinery/ treatments.

Direct links to
information on the
website from ENewsletters much easier
than trying to access
info later on the web.

About Industry Juice

Some comments



About APAL's communication

Get on the phones, get a list of all the apple and pear growers and updated contacts including their managers and staff so that they all feel part of an exciting business

More information about data, trend, trade and technology regarding the fruit industries.

Make the member area more accessible to industry

The password is irrelevant... it is a deterrent to use the site

Think you're doing a great job the web site has improved within the last year and a half, information is power for the growers

About the website

Appendix 2: Australian Fruitgrower, Nov 2015







Next year Australian Fruitgrower will be reducing its print publication down to six issues a year.

But don't worry those six issues will be jam packed full of even more great features, research updates and comprehensive technical articles.

Improving our web presence

The same amount of content – across news, events, technical articles and reports – will be published online and we will be working to improve how you can find your favourite articles easily on our website too.

Plus, we will be publishing more grower interviews on YouTube – so watch out for those!

Thanks everyone!

A big thank you to all our readers, funders and advertisers for your ongoing support. We will keep delivering a great magazine for you into the future and even better online content.







Contact us cm@apal.org.au | 03 9329 3511

APAL members can receive up to ten free issues of the hard copy magazine to share with staff – contact us to arrange.

Australian Fruitgrower

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Weather and games



OUR COVER:

Leeanne and Andrew Scott with their export-focused Tasmanian Tiger Fuji apples (read more on page 18).

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Edition	Booking and Editorial copy deadline	Ad material deadline		
Dec 2015/Jan 2016	3 November 2015	13 November 2015		
Feb/Mar 2016	4 January 2016	13 January 2016		

APAL would like to thank our partners who provide us with funding and support.









FROM THE EDITOR



Last issue we reported on the increase in apple exports and in this issue we meet apple growers and exporters Andrew and Leeanne Scott from Tasmania who are establishing Tasmanian Tiger Fujis as an export-focused variety.

From apple to pear exports, this issue we're reporting on a ten-year high of pear exports. And we need a bit of good news for our pear growers who suffered a setback in the Goulburn Valley after a nasty hailstorm hit some orchards last month. But we are rallying to help where we can with a fresh pear marketing campaign in the works that APAL is helping with.

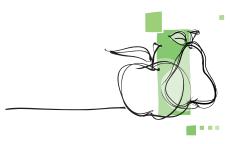
It's timely to be looking at thinning and considering netting – both for any further hail and for sunburn – as summer approaches. AgFirst's John Wilton provides an update on thinning while the team at the Horticulture Centre of Excellence in Victoria share some research on sunburn.

And if you want to find a way to reduce your costs (which should translate to more profits), then read about what you can do in your packing shed to cut your electricity bill and find out about some financing options that can help get you there.

Sophie Clayton







Drones to control pests

ABC Landline reported on drones to spread predatory insects, while a lychee grower is using a drone to keep flying foxes off his orchard.

Photo: abc.net.au



Pick right, feel bright



A Wiggles and PMA campaign is encouraging kids to eat more fruit and vegetables. Join them and "take the pledge and eat more veg".



When Howard met Malcolm

Tassie apple grower Howard Hansen met Prime Minister Malcolm Turnbull at the Flavours of Tasmania event in Parliament House, Canberra.

Submit your photos and ideas to cm@apal.com.au



Collaboration is the key to achieving success

By John Dollisson CEO. APAL

s we progress towards fruiting in the orchard, the risks from external threats increase. Unfortunately we saw the effect of this with the severe hailstorm that hit the Goulburn Valley in October – potentially damaging up to 35 per cent of the Australian pear crop. APAL is working with the affected growers on a new campaign 'Hailstorm Heroes' to ensure much of the fruit is saved, sold and delivers the grower a reasonable return. The supermarkets have been receptive to supporting this initiative which is good news for the industry too.

We have also taken over the short-term management of apple and pear marketing while Horticulture Innovation Australia (Hort Innovation) fills their marketing role. During this period we will focus on analysing the data and research findings collected by Hort Innovation in order to prepare an informed apple and pear category management plan for the 2016 crop. From there, we will set out our proposed marketing and promotional campaigns to address how we can best work with the markets. We also intend to engage with the major supermarkets and wholesale markets in a much more collaborative way than has been achieved in the past. It's imperative that we work together to understand each other perspectives – that will be critical in order to achieve collective success for all.

Other marketing tasks include maximising the benefit of social media interaction for growers, updating the Aussie Apples and Rediscover the Pear websites and introducing a new pear marketing campaign.

November is a very important month with the annual general meetings for both Hort Innovation and the Voice of Horticulture

(VOH) taking place on Friday, 27 November, 2015. This is a chance for industry to vote for new directors of Hort Innovation and voice any needs and concerns to ensure R&D and marketing levy funds are spent effectively. At the official APAL office opening Senator Anne Ruston made it clear that the industry's success lies in having an effective advocacy voice (namely, the VOH) and keeping Hort Innovation on track to deliver real benefits to growers and much needed targeted and strategic investment in R&D.

As the new Assistant Minister for Agriculture and Water Resources, Senator Ruston is keen to assist both organisations in working together to capitalise on the huge growth opportunities in horticulture in the coming decade. The Senator also complimented APAL for its senior role in the industry and for setting a great example as an independently funded peak industry body.

This year we have seen a significant increase in exports in both the apple and pear categories. We now need to build on this momentum and commit to longer term export markets so we can grow the industry and domestic profitability.

As we progress towards harvest our thoughts are with you for a successful crop. Thanksgiving, the celebration of harvest in America, is almost here. And while Australia may not have an equivalent celebration, the sentiment remains the same — may your pears be prosperous and your apples bring affluence in 2016. :afg



John Dollisson (rt) met with Andrew Plunkett (lt) and other pear growers from the Goulburn Valley to see the hail damage to orchards and discuss ways APAL could help.



Lt to rt: Senator Anne Ruston, APAL Deputy Chair Kevin Sanders and John Dollisson at the official APAL office opening.

QFF coordinator and **National Fruit Fly Council**

THE NATIONAL FRUIT FLY COUNCIL HAS BEEN FORMED TO WORK WITH GROWERS AND FRUIT FLY MANAGEMENT COMMUNITY GROUPS ACROSS ALL STATES AND TERRITORIES TO CONTROL FRUIT FLY ON A NATIONAL SCALE.

reg Fraser, Executive Director and CEO of Plant Health Australia, said that the Council will drive coordinated efforts across Australia to manage fruit fly to prevent them being a constraint to sustainable production or a barrier to trade and market access.

"This is an increasing challenge now some common chemical controls have been removed as options for farmers," said Greg.

The four main focus areas for the Council are:

- Fruit fly management systems activities for prevention, detection, eradication, and management of fruit flies.
- Market access activities that will assist in securing entry conditions for horticultural produce into markets.
- Legislation and regulation ensuring that regulation and legislative controls for managing fruit flies are in harmony both across Australia and with international standards.
- Research and development ensuring that Australian R&D provides technically justifiable approaches and innovative solutions to meet the requirements of the three areas above.

The Council will consider the management of Mediterranean fruit fly (Medfly) and Queensland fruit fly (QFF). There will also be an emphasis on exotic fruit flies that could, if established, significantly impact the ability of industries to produce marketable fruit.

Funding for the Council will come from Horticulture Innovation Australia (Hort Innovation) and federal, state and territory governments. A full time national manager of fruit flies will be appointed to drive the Council's agenda.

This role will have strong links to the two new national positions established by Hort Innovation, the SITplus Program Director and the QFF Area-Wide Management (AWM) Coordinator. These three people will coordinate activities to ensure messages are delivered to all stakeholder groups.

The National Fruit Fly Council will take over the work of the National Fruit Flv Strategy Advisory Committee.

Two appointments made to lead QFF work

Hort Innovation has appointed two people to support and coordinate the work they fund to manage QFF.

Mr Dan Ryan has been appointed as Program Director of the SITplus consortium that brings together experts from different research and government organisations working in sterile insect technology (SIT). He will work with stakeholders to communicate with existing and new research and commercial partners, and coordinate the different parts of Hort Innovation's QFF work.

Dr Penny Measham has been appointed as the QFF AWM Coordinator to prepare and support industry and councils for the eventual deployment of SIT QFF. She will be the primary two-way conduit between the project's research team and stakeholders involved in QFF management for delivery of the regionally focused programs in horticultural production areas affected by endemic QFF or outbreaks.

If successful, these Hort Innovation programs will see the delivery and production of a sterile male line of QFF and adoption of an associated AWM program.

Penny can be contacted on penny.measham@horticulture.com.au or 0417 525 904 and Dan can be contacted on sitpluspd@gmail.com. :afg



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New Minister for horticulture opens APAL office

In a ceremony with around 50 apple and pear growers, industry stakeholders, and guests, Assistant Minister for Agriculture and Water Resources Senator Anne Ruston officially opened APAL's new office in East Melbourne.

PAL is a shining light in industry associations and I commend you," said Senator Ruston. "My role is to make the environment in your industry as conducive as possible for you to do business with the least amount of trouble and greatest profitability."

Hailing from South Australia, Liberal Senator Anne Ruston has also been appointed responsibility for the horticulture sector, taking over from Agriculture Minister Barnaby Joyce. She is already familiar with the horticultural sector as the owner of Ruston's Roses in Renmark, South Australia – a commercial cut-flower business and home to Australia's largest rose garden. According to their website, the family business has significantly diversified and expanded under Anne's ownership and has reduced its irrigation water use by 60 per cent.

Senator Ruston discussed the importance of infrastructure development to ensure growers could produce and get their fresh produce to market. She also acknowledged the export opportunity for both apples and pears and offered to help in any way she could to increase exports.

"I would be really keen to talk to you about what is it that we need to do to increase exports of apples and pears, and apple and pear products. Because if we can send more overseas we can also get more competitive tension in the domestic market so we can get better returns in your pocket," Senator Ruston said to the apple and pear growers present.

Senator Ruston noted the role government can play in regulation that supports Australia's brand as one of the cleanest, greenest and safest producers and in export market access, but also the importance of allowing businesses to simply get on with business. She also praised APAL for its leading role in developing the Voice of Horticulture and paid tribute to those present who contributed to its establishment.

"I am absolutely 100 per cent behind you in making sure this organisation [Voice of Horticulture] works," said Senator Ruston.

"As a government if someone comes to you with a united voice speaking on behalf of a sector to which the issue pertains then it is very, very easy for us to go forward with common purpose and to come to a productive outcome."

Senator Ruston also acknowledged the support of Horticulture Innovation Australia for their research and development role.

APAL CEO John Dollisson also thanked all APAL's supporters including corporate sponsors E.E. Muir and Sons, Agrofresh and J-Tech; to the office opening sponsors Fankhauser Apples for their Alvina Gala apples, FreshMax for their pears, Willie Smiths organic apple cider, and Ashton Valley Fresh for their sparkling juice; and to Hort Innovation for their ongoing support of APAL's projects. :afg



The APAL office opening attracted growers and industry representatives.



Senator Anne Ruston officially opens APAL's office with APAL CEO John Dollisson.









Thanks to the sponsors of APAL's office opening: Fankhauser Apples for their Alvina Gala apples, FreshMax for their pears, Willie Smiths organic apple cider, and Ashton Valley Fresh for their sparkling juice.

Most Snackisfying

Pink Lady® is top snack in UK

APAL'S COREGEO BUSINESS, WHICH MANAGES THE PINK LADY® BRAND IN THE UNITED KINGDOM, RECENTLY PUBLISHED THE RESULTS OF THEIR 2015 Snackisfaction® consumer survey that ranked Pink Lady apples as THE TOP SNACK.

hey tested 115 people in the UK to see which of six snacks - Pink Lady apples, milk chocolate, potato crisps, shortbread, carrots and celery combined, and unsalted nuts was preferred.

The Snackisfaction ranking combines how each snack appeals to people's senses with how it makes people feel when they eat it. More than 30 positive and negative emotions and sensory cues were taken into account.

Survey respondents said they felt active, enthusiastic, energetic, refreshed and invigorated after eating Pink Lady apples.

The survey also showed people did not feel the guilt about eating Pink Lady apples that they felt after eating some of the other snacks on offer, and they avoided feeling 'uninspired', a tag associated with carrots and celerv.

The Snackisfaction campaign began in 2015 and will continue in 2016. :afg

Source: coregeo.co.uk



Growers with employees must provide payslips

Apple and pear growers are reminded that, by law, all Australian EMPLOYERS MUST PROVIDE THEIR EMPLOYEES WITH REGULAR PAYSLIPS.

oreover, anyone employing backpackers should be prepared for them to insist on receiving payslips along with signing their Working Holiday visa employment verification form.

As of 31 August 2015, anyone applying for a second Working Holiday visa must provide payslips to show they have completed 88 days of specified work in regional Australia.

APAL Industry Services Manager Annie Farrow says that some employers may not have encountered these kinds of requests from their backpackers in the past.

"Previously, employees on a Working Holiday visa were able to submit a form to Australian Border Force to prove their work record," says Annie.

"Now, the changes to the application process mean they must provide specific documentation to prove they have completed their required three months work, under proper working conditions."

The Working Holiday Maker program allows young adults from eligible partner countries to work in Australia while having an extended holiday.

For more information visit the Department of Immigration and Border Protection website www.border.gov.au or contact 131 881. :afg



APAL welcomes changes to an emergency incursion

APAL WELCOMES CHANGES TO THE EMERGENCY PLANT PEST RESPONSE (EPPR) LEVY THAT WILL REDUCE THE TIME AND COSTS OF RESPONDING TO A NEW PEST OR DISEASE THREAT FOR THE APPLE AND PEAR INDUSTRY.

The EPPR Deed says that when an eradication of an exotic pest or disease is deemed technically and economically feasible, governments and industry agree to share the costs of eradication," says APAL Industry Services Manager Annie Farrow.

Cost sharing arrangements are established by categorising an exotic pest or disease. The levy is the way that the apple and pear industry can recoup its share of costs back from growers and repay its share to the government who will manage any eradication program.

The old process required industries to go through an exhaustive 12 step process to change a zero levy to a positive one. It was an expensive process, costing tens of thousands of dollars, potentially costing more than the eradication process itself.

The change will come into effect on 1 November 2015 and will significantly reduce costs associated with moving the apple and pear emergency response levy from zero to positive in the event that an eradication program is required against an exotic biosecurity threat. :afg

APAL makes submission to Hort Code review

APAL HAS MADE A SUBMISSION TO THE HORTICULTURE

CODE OF CONDUCT REVIEW TO ENSURE THAT BOTH PARTIES

INVOLVED IN A TRANSACTION UNDERSTAND AND ACCEPT

THE TERMS OF A TRADE BEFORE THE TRANSACTION IS MADE.

The Code is a mandatory industry requirement that horticultural growers and traders must enter into before they can trade with each other. A review of the Code has been underway this year.

APAL's submission focuses on the importance of:

- Transparency between growers and the first point of sale to ensuring a competitive market place.
- Inclusion of contracts which pre date 2006 as well as processors, retailers and exporters.

 Operational, functional and practical aspects of the Code.

"It's important to ensure both parties are on the same page otherwise one will unfairly, and unknowingly, bear all the market risk," APAL Industry Services Manager Annie Farrow said.

"Also, a number of stakeholders believe that market power remains in the hands of buyers and are seeking an amendment to the Code to permit grower group bargaining. APAL supports that view." :afg

NEWS SNIPPETS

National cider winners

Willie Smith's Organic Cider has won the Best in Show at the 2015 Australian Cider Awards. They also won Best Cider and Best Australian Cider or Perry.

This year the competition was bigger and better than ever before with 155 entries across 18 classes with judges saying they were impressed with the standard on display. Many other Australian ciders and perrys won best in class awards.

Source: cideraustralia.org.au

Fenthion now gone

The use of products containing fenthion are now no longer allowed with their permitted use ending in October 2015. This signifies the completion of APVMA's 12 month phase-out period.

Source: apvma.gov.au

APAL helps marketing

APAL will be working with Horticulture Innovation Australia for the coming weeks on the apple and pear marketing program while Hort Innovation recruits and inducts a new marketing manager for apples and pears.

A pear marketing campaign to support growers affected by hail (see page 21), management of industry involvement at the Taste Festival, data analysis for the category marketing management plans, among other activities are on the work plan.

For more information contact APAL's Market Development Manager Olivia Tait on 0409 554 078 or otait@apal.org.au or Hort Innovation's David Moore 0419 379 931 or david moore@horticulture.com.au

Korean nashi imports permitted

The Australian Government has reinstated approval for the importation of nashi pears from three selected growing regions of South Korea after *Erwinia amylovora*, which causes fire blight, was detected in the country.

Fire blight spreading to these regions is very low with the potential for its introduction to Australia able to be managed through the amended import conditions and the existing protocol.



APAL's 2015 European study tour

By Angus Crawford

In August, APAL's Technical Manager, Angus Crawford, led a group of Australian growers on a trip through the apple and pear growing regions of Italy, Belgium and the Netherlands TO MEET WITH LOCAL GROWERS AND LEARN MORE ABOUT THEIR BUSINESSES.

hroughout the 10 day tour growers interacted with leading university researchers, consultants, fruit growers and nurseries in many different regions to see the new technologies and innovations being made or trialled.

In this article I will try to capture the activities of the trip which took us to see many growers, research centres, processing sites, breeders and nurseries.

Italy

The tour began in Ferrara, Italy, and toured part of the Po Valley where we met progressive researchers, Professor Luca Corelli Grapadelli and Dr Luigi Manfrini from the University of Bologna. It is a

warm region, but this season we saw that most of Italy was facing a poor colouring year due to heat. Interestingly, the orchards in the Po Valley are below sea level on land reclaimed from the Adriatic Sea. This has led to very nutrient rich soils, but generates excess vigour in the apples.

We were introduced to Michele Manfrini who is a consultant for the local consortia. Fuji is a variety which the region has a competitive advantage over other regions. Michele highlighted the need to set growing systems that suit the growth habit of the variety, for instance vigorous varieties such as Fuji are commonly grown on a wider spacing to allow the tree to spread out.

Managing the risk of biennial bearing in Fuji is a priority and Michele caps the production from fourth leaf at about 50 tonnes per hectare because going above this is risky.

After viewing some more blocks, we toured an apple orchard owned by the Mazzoni Group who have activities in research and development, nurseries, production and distribution. Varieties they are responsible for include Modi®, Rubens® and Isaag®.

Many years ago, the Mazzoni Group patented the Bibaum® system where trees develop two leaders in a 'V' shape parallel to the row. The Bibaum patent refers to the process at the nursery level and over many years the execution has been perfected, resulting in the two leaders growing more evenly and one leader not being dominated by the other.

Virtually all of the new plantings we saw by the Mazzoni Group were Bibaum and from their point of view the main advantages described were better vigour control, a more balanced tree, fewer trees are needed reducing the number of trees, and better fruit quality. These plantings were of Pink Lady® (Rosy Glow) at 3.3m x 1.2m and producing 80 tonnes/ha.

During this section of the trip we were joined by consultants from HK Consulting who have developed predictive modelling software for fruit production to generate useful benchmarking information. These models are based on many years of research with data from the University of Bologna and other reputable sources. Now used in multiple countries, the uptake of this new software is growing.



Local consultant Michele Manfrini (white t-shirt on the lt) takes us to a first leaf Aztec Fuji block spaced at 4.3 m x 1.5 m on M9 rootstock.

The Italian industry, along with most of Europe, are moving towards more environmentally friendly techniques where they use less chemicals.





Orchard systems

We then went to South Tyrol where apple growers have stayed competitive due to modernising their orchard systems. Nearly all of the farms have a platform for thinning, pruning, tree training and it was mentioned that half of the industry also use platforms for harvesting.

A highlight of the trip was a visit to the renowned pomology expert Dr Alberto Dorigoni at a research farm in Mezzolombardo, in South Tyrol. We walked through several established orchard systems trials including ones on the fruiting wall which are canopies that are mechanically pruned and thinned.

In many ways the fruiting wall is very similar to the two dimensional (2D) canopies because both tend to be very narrow and flat. The main difference is that the 2D is a horizontal system, trained to a wire, which looks very neat, but in order to stay this way it must be managed well.

The fruiting wall is more vertical and allows for more flexibility and fits better with the natural growth of the tree.

The performance of the fruit wall changes under growing different primary structures, that is, spindle (one axis), Bibaum (two-axis), three-axis and four axis all on M9 rootstock. We observed that Bibaum tended to be the best for diverting vigour and setting up a canopy most suitable for the fruiting wall.

Spraying and netting

South Tyrol with 18,500 hectares of apples makes this the most concentrated apple area in the world. The Italian industry, along with most of Europe, are moving towards more environmentally friendly techniques where they use less chemicals. This has resulted in better management in many regards, particularly with wider adoption of drift reducing sprayers and tunnel sprayers which saves

40 per cent of chemicals and manages a huge amount of spray drift.

Research in Europe is partly directed to this general area of chemical reduction and drift management. On Dorigoni's research farm we observed solid set canopy spraying trials as well as research on what were called multi-purpose nets which suit a narrow canopy. The multi-purpose nets are a type of Drape Net[®] to protect the tree from hail, rain, to reduce blackspot, prevent codling moth and also to create shading and restrict pollination for thinning. An additional feature is the pull down string where the net can be easily raised just like a blind to gain access.

In more recent years, growers have started using this type netting for thinning where closing the net at certain stages of flowering prevents bees from accessing and pollinating the flowers. They also provide additional shading effects which, in combination, cause significant abscission



▶ of flowers. These are comparable with thinning treatments of three applications of ammonium thiosulphate (ATS) followed by 6-benzyladenine (6-BA).

The normal timing was at 50 per cent flowering but later stages at 70 per cent still gave a result and it works particularly well in Fuji. At the very early closure and the 20 per cent timing, the number of seeds was reduced, but at 50 per cent there was still a normal number of seeds per fruit.

New varieties

These small research demonstration farms were common and provided invaluable learning throughout the tour for orchard systems and new varieties. In South Tyrol, apples and pears are sold mostly through two major cooperatives - VIP and VOG. In these cooperatives it is up to them to decide what varieties are planted and which ones are not.

To look at this, we met with Marcus Bradlwater who is in charge of the SK Variety Innovation Consortium which is the variety arm of VIP and VOG. Their purpose

is to find and make recommendations on new varieties and the process of choosing a variety takes about seven years.

During this time the potential variety is extensively tested for suitability and marketability. So a number of sites are used. We heard about a number of new varieties as well as varieties no one had heard of which are already, supposedly, in Australia's quarantine system.

Still in South Tyrol we visited the Laimburg Research Centre where we saw mostly new varieties, new rootstocks and some post-harvest research that was underway. Here we met Dr Walter Guerra who is in pomology and a variety specialist. Walter showed us rootstocks CG11 (Cornell Geneva) which, in his opinion, appeared the most promising with good horizontal branching, superior replant tolerance and a nice clean trunk with no signs of burr knotting. CG11 has dwarfing characteristics similar to an M26. Likewise CG41, which has similar dwarfing to M9, also appeared promising, except at the nursery level it is difficult to propagate, although this can be managed.

With the mounting pressure on residues and overall aim to reduce chemical usage, more varieties with blackspot resistance are being planted. These older lines of resistant apples tended to lack in quality however newer varieties such as Modi are gaining a strong presence in the market place.

Belgium

From Italy we travelled to Belgium and the Netherlands where pears are the most important crop with the dominant variety Conference representing 70 per cent of their production. While Conference pears have the competitive advantage, the area planted to apple production is decreasing due to lower prices and returns compared with pears. Growers have little interest in the club variety system and even varieties bred in their own country, such as Kanzi® and Greenstar® from better3fruit, have had poor uptake.

In Belgium we visited another research farm, the Research Center of Fruit Growing of PC Fruit, where extensive areas of research are undertaken in variety testing, growth control, crop regulation, planting systems, fertilisation and replant disease.



Samotec EVO4: A powerful electric driven platform quietly handles Martin Thomann driving the group through the Vinschgau region. steep terrain, bins, has ultrasonic sensors for steering and electromagnetic energy recovery (i.e. recharges downhill). Photo shows Martin Thommann from Beratungsring on the right.





The red-coloured Celina® pear from Belgium.

We were hosted by Dr Jef Vercammen and Dr Tom Deckers who took us though the centre and out for some farm visits. We looked at new varieties of apples and pears where detailed independent testing occurs and growers are invited onto the centre for field days.

One pear variety they are particularly interested in is Celina[®], which apart from the flavour, has a very nice red appearance. This was regarded as superior to other red varieties of pear that can often end up with more of a brown/red appearance. We were told that is has early maturity, crops very well, reaches production quickly, and is suitable to all pear-growing countries.

On the research farm we came across a trial where the growers were running their own orchard systems experiment for pears.

On the research farm we came across a trial where the growers were running their own orchard systems experiment for pears.

Several grower groups were formed at the station and the groups regularly visit to prune and train the trees to their unique system. The growers are competing to produce a system which gives the best productive performance based on the criteria.

The Netherlands

In the Netherlands, we saw more and more Conference pears, which is what they are really good at producing, however, we were relieved at the end to see a young 16 hectare block of Kanzi apples.

A very enthusiastic and knowledgeable consultant from Fruit consult, Rene Albers, took us through the details and shared the numbers and inputs that have gone into this block. It was a good example of the newer orchards being set up for multi-row spraying.

This busy tour covered many more things than I have mentioned here, including nurseries and grower visits. A much larger, more detailed report with my full notes is available on request. :afg

Angus Crawford, Technical Manager, APAL t: (03) 9329 3511 | m: 0427 111 852 e: acrawford@apal.org.au

UPCOMING EVENTS

Taste of Melbourne Melbourne, Vic 12-15 Nov 2015



Freshcare AGM

Freshcare office, Sydney Markets, NSW 12 Nov 2015

Fruit Growers Victoria AGM

Clover Cottage, Berwick, Vic 19 Nov 2015

AgriFoodLCA, Growth through sustainability

Melbourne, VIC 23-24 Nov 2015

Hort Innovation AGM

Sydney, NSW **27 Nov 2015 (10.00am)**

Growcom's Workplace Essentials Seminar 2015

Stanthorpe, QLD **3 Dec 2015**

Future Orchards® walks

Jan 2016

The Apple and Grape Harvest Festival Stanthorpe, Qld

26 Feb – 6 Mar 2016

More event info:

apal.org.au/events

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State Associations

WESTERN AUSTRALIA

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NEW SOUTH WALES NSW Farmers Association

QUEENSLAND

Growcom

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SOUTH AUSTRALIA

Apple & Pear Growers Association of South Australia (08) 8389 8300

TASMANIA

Fruit Growers Tasmania Inc (03) 6231 1944

VICTORIA

Fruit Growers Victoria Ltd (03) 5825 3700

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Victoria

FRUIT GROWERS VICTORIA (FGV) RELEASE THE GROWFRUIT APP AND WELCOME A NEW INDUSTRY DEVELOPMENT OFFICER.

FGV's Growfruit App is a web based tool to help growers manage codling moth, oriental fruit moth and light brown apple moth in pome and stone fruit production. Growfruit provides more accurate spray timing recommendations using degree day modelling and trapping data to help growers apply more targeted specific insecticides. To find out more about Growfruit, what it can deliver and to access the program for this season, please contact FGV.

Sudden drought conditions came very quickly. September rainfall was below average

for much of Victoria. Aboveaverage daily maximum temperatures were experienced as well as cooler overnight temperatures, with an unexpected and serious hailstorm (see page 21 for more). If this continues, growers will be using more water and, with scarce allocations, creating a situation where the price of water will rise.

The Victorian horticulture industry might have an influx of new workers after the Federal Government's acceptance of 12,000 refugees displaced by conflict in Syria and Iraq. The Shepparton

region is well placed to accept refugees and utilise their skills.

Petar Bursac has started in his full time position as an Industry Development Officer for Fruit Growers Victoria.

Véronique Froelich **Industry Officer** Fruit Growers Victoria Ltd. (FGVL)

New South Wales

NSW starts irrigating early, welcomes THE APAL GROWER ROADSHOW AND CONTINUES TO INVESTIGATE HOW TO ESTABLISH LOW PEST PREVALENCE AREA OF OFF IN GROWING REGIONS OF NSW.

With Christmas fast approaching the weather is definitely warming up. In 28 years of orcharding I cannot recall ever being required to water fruit trees at the beginning of October before. Fortunately our dams are sitting at relatively good levels. The upside to being so dry is that there has been virtually no need to apply black spot covers.

A few weeks ago we hosted the APAL Grower Roadshow. It was so refreshing to meet our new Chair, Michele Allan, whom, from all accounts, appears an enthusiastic and down to earth individual.

The disappointment of the Roadshow was that we found out that while the population of Australia increases, the consumption of apples decreases. I could impart my thoughts as to why it is decreasing but the bottom line is people are buying less apples and the question we

need to ask ourselves is why? But not only why, what can we do about it? Maybe we should have another survey.

On another low note, our submission regarding establishing low pest prevalence areas for Queensland fruit fly was rejected. An announcement has been made by our local member the Hon John Cobb MP regarding \$5.2 million in grants to help horticulture

and small business with market access. We have met with Mr. Cobb and asked him to approach the Minister for Agriculture Barnaby Joyce for justification of the rejection. As far as I can see, we should qualify for funding as it is not only for Orange but also Young, Batlow and Griffith.

Guy Gaeta Communication Officer **NSW Farmers Association**



Lt to rt: APAL Chair Michele Allan, APAL Director Greg Mouat, apple grower Michael Smart and APAL CEO John Dollisson on the Batlow leg of the Grower Roadshow on Michael's orchard Tingira.

Queensland

WATER MANAGEMENT WILL BE CRITICAL FOR QUEENSLAND GROWERS THIS SEASON AS DRY CONDITIONS PREVAIL, WITH REPERCUSSIONS - GOOD AND BAD - FOR PESTS AND DISEASES.

Weather conditions in the Granite Belt have put considerable pressure on farm dams with less than a third of average rainfall received during the last three months. On farm water storage levels were in good shape but the recent dry conditions are

: running supplies down despite relatively mild temperatures. With weather forecasts constantly warning of the impending 'Godzilla' El Niño, effective water management during the remainder of the apple growing season will be essential.

The dry conditions are not conducive to most apple diseases but will favour buildup of insect populations with codling moth becoming easily trapped on many orchards. Queensland fruit fly is present in larger numbers than is normally expected at this time of the season. Mealybugs can be expected to create their own micro-environment in the calyx part of the fruit and thrive despite predicted hot, dry conditions. The flowering period passed with few problems from thrips and dimple bugs in most orchards.

APAL Chair Dr Michele Allan and APAL CEO John Dollisson, together with APAL Director Rosie Savio, visited Stanthorpe as part of the APAL Grower Roadshow. Local growers and senior industry representatives were able to discuss specific issues or current matters of concern relating to Queensland apple and pear orchards.

Peter Nimmo Research Station Leader, Applethorpe Research Facility DAFF Queensland

Western Australia

Pomewest has been running with its own PROMOTIONAL ACTIVITIES AT THE PERTH ROYAL AGRICULTURAL SHOW AND BEYOND.

Pomewest continues to work is strengthened by the great on promotion to increase demand for product and keep apples relevant as a healthy snack alternative for families. These activities are

work and services of Noelene Swain of Fresh Finesse.

At the recent Perth Royal Agricultural Show (26 September to 3 October), we presented WA apples under ! the Aussie Apples brand. The Stand and materials for this event were provided by Hort Innovation. As usual our display offered fresh apple slinky treats and apple juice and again proved a useful avenue to communicate and educate consumers about apples.

Show goers were offered a 'sneak peak' tasting opportunity of the new ANABP 01 (the dark skinned apple) variety and offered feedback as to

their views on its appearance and taste. This also gave me an opportunity to introduce the variety to potential consumers. Most were attracted by the dark skinned characteristics and were impressed that the variety was developed by the same breeding program as the Pink Lady™ apple. We were honoured that our Minister of Agriculture and Food and Fisheries in WA, the Hon Ken Baston MLC dropped by to have a taste.

As well as the Royal Show, Pomewest also sponsored the recent Karragullen Expo held on 10 October supporting the 'Kids Korner' activity. This great day, organised by the Hills Orchard Improvement Group, showcased the produce of the Perth Hills. It was great to see so many producers in the area supporting the day. Congratulations to all involved.

Nardia Stacy Executive Officer Pomewest



The Hon Ken Baston MLC (rt) with Nardia Stacy (lt) showcasing the new WA apple variety ANABP 01 at the 2015 Perth Royal Agricultural Show.

South Australia

THE WEATHER OUTLOOK IS DRY BUT THE CROP OUTLOOK IS GOOD IN SOUTH AUSTRALIA, WHERE GROWERS WILL ALSO SOON BE ABLE TO USE A CALCULATOR TO ASSESS THE ECONOMIC VIABILITY OF NETTING.

It seems this year we went straight from cold winter conditions into summer, with some record warm temperatures in October and an adjustment to the Bureau of Meteorology's Climate Outlook into a forecast drier period ahead. This resulted in a fairly compact bloom period with very early indications of another good crop for South Australia in the coming season.

In our recent strategic planning workshop there was much discussion from participants around how we can grow consumption of apples and pears and expand our markets to pull the industry out of the current state of depressed grower returns. It is extremely disappointing to see the current Hort Innovation marketing program come to a halt again. It is hoped that this situation is addressed quickly to get some smart promotional campaigns in place that are linked very closely with industry and controlled by industry.

The Apple & Pear Growers Association of SA is very close to finalising a Netting Cost Benefit Calculator, which will assist growers in making informed decisions as to the viability of permanent netting across different blocks. This is a sophisticated tool that enables growers to project 20 years ahead using their own site specific information. It also incorporates predicted changes in climate conditions and modelled impacts on temperature and water availability. Whilst developed specifically for the Adelaide Hills it could be readily adapted to other growing regions of Australia.

The South Australian industry continues to develop and evolve. It is pleasing to note that two local apple and pear businesses have received state government grants for infrastructure development and upgrades in the past 12

months. Ceravolo Orchards and Lenswood Cooperative both received some funding assistance for upgrades to their facilities on the back of their own substantial investments and major works are now underway at Lenswood. Other businesses that are looking to invest in new capital infrastructure or expand are also encouraged to apply for grants.

There are also many new trees being planted into the ground at the moment where old blocks are being worked over and we will see significant plantings this year. Growers are rolling the dice on a number of different varieties with the current regional variety mix expected to change very rapidly.

Susie Green Apple & Pear Growers Association of South Australia

Tasmania

Fruit Growers Tasmania continues its focus ON BUILDING LOCAL HORTICULTURAL SKILLS AND PROMOTING TASMANIAN APPLES IN ASIA.

Our focus on skills and training : on to complete the next phase continues across the fruit sector with the first round of Certificate III and IV in Production Horticulture now completed with a great outcome. Twenty students commenced the Cert III aimed at the Leading Hands and 15 commenced the Cert IV focusing on the Assistant Managers – the end result being 100 per cent completion.

With this result, 50 per cent of the students intend to go of both certificates. Additionally the training has evolved from tree crops to berries and across to vineyards. In the next round of training, quality assurance will have a significant presence across both courses.

Growers who attended Asia Fruit Logistica (AFL) reported strong interest in apples from buyers. As a result a container of Tasmanian Tiger Fujis were sent into Taiwan – the first time the protocol had been

exercised in a number of years : The delegation, which also (see page 18 for more).

Dane Griggs presented his famous Rubigold apples and was clearly overwhelmed with the interest shown from Asian buyers. "I never believed there would be such strong interest in my Rubigolds," Dane said.

The interest was also in the provenance of the fruit with buyers being impressed about connecting directly with the producer. The connection was assisted by display material promoting respective growers and farms and a central stand displayed Pink Lady™, Gala and Tiger Fuji apples.

The Tasmanian Government delegation saw State Growth Minister Matthew Groom attend AFL and the China World Fruit and Vegetable Fair.

included the CEO of Tasmanian Irrigation, were impressed with the level of buyer engagement Tasmanian growers were experiencing.

Phil Pyke Business Development Manager Fruit Growers Tasmania



The Fruit Growers Tasmania display at Asia Fruit Logisitica in Hong Kong showcasing apples.



"Ready to throw in the towel?"



"No way. I'm still figh<mark>tin</mark>g fit."

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Tassie Tigers ROAR into Asia By Sophie Clayton

Andrew and Leeanne Scott of Scott Brothers in Tasmania have been doing their fair SHARE OF INCREASING AUSTRALIA'S APPLE EXPORTS BY SENDING SHIPMENTS OF THEIR VERY OWN Tasmanian Tiger Fuji apples to Asia.

Txports remain a key focus for the Australian apple industry to provide new markets for our high value produce and display="block" to block; to be a competitive local market.

■ to ensure a more competitive local market.

■

About a year ago Scott Brothers sent the first sea freight shipment of Australian-grown apples to China – a container of Tasmanian Tiger Fuji apples. And, at the time this article was being written, a trial shipment of the apples was in transit to Taiwan. Hopefully by the time you read this they will have successfully arrived – which will be the first time Australian apples have been sent to the country in many years, signifying an important achievement for the industry to maintain access to the market.

Those shipments, along with other apple exports from Tasmanian growers, have seen Australia's apple exports jump nearly 50 per cent in the first half of this year.

Export orders

Tasmanian Tiger Fujis have been shipped to a number of locations including China, Hong Kong and Thailand, thanks to some key help from Baden Ribbon, the Marketing Manager at Hansen Orchards in Tasmania. Baden assists the business with the marketing and

Tasmanian Tiger Fuji apples were the first apples to be sea-freighted to mainland China – marking a turn-around in Australia's apple exports last year.

shipment of the Tasmanian Tiger Fuji apples and has arranged for all the shipments to their Asian customers.

"We started working with Baden about three years ago when we started shipping into Hong Kong," says Andrew. "We were originally flying them across in small shipments, then that grew into sea freight containers for Hong Kong, which culminated last year in a 40 foot container being shipped directly into China."

Andrew adds that Baden's marketing expertise has been invaluable and that as they start to produce more, and grow their international market, Baden will manage all the marketing for the variety. Hansen Orchards also exports cherries and other apples and retains good relationships and knowledge of buyers in Asia.

"I targeted our top end Asian cherry customers that I knew would embrace the apple and ensure it was directed towards the right consumers," says Baden. "It is still early days and we have a lot of work to do but we have laid some really good foundations and the future looks exciting."

The company that took half of the container of the Tasmanian Tiger Fujis – around 10 tonnes of fruit – gave it to their senior executives in gift packs as samplers in a hamper as a staff bonus and to see what they thought of the apples. This one supermarket chain employs 500,000 people – that's more people than there are in Tasmania.

This was probably something of a lucky break for the team working with the apples because it meant that the fruit was presented as a high-end 'special' product and all the key people within that company who would sell the apples got the opportunity to sample them.

"We've had inquiries for orders that we can't possibly fill, that we've had to say no to," says Andrew. "Part of the learning process is that we are learning more about our customers, what apple sizes they want, and what size of customer we can deal with.

"Instead of selling to just one wholesaler with them doing distribution, which is what we would have done traditionally, we've tried to target particular apple sizes to the right customer.

"It may well be the wholesale market will take a certain size fruit, the supermarket chains will take a certain size, and the online retailers will take another size. That's how we've tried to go about it and it seems to be working."

Andrew Scott and his wife Leeanne walking through their orchard of Tasmanian Tiger Fuji apple trees in Geeveston, Tasmania.



Where it all started

Back in the 1980s, the Tasmanian industry got involved in testing imported Fuji apples from Japan in an effort to produce apples locally that would meet the needs of Japanese consumers and to get market access.

As part of this work, Scott Brothers managed the commercial trial site for around ten strains of Fuji apples and a selection of other apple varieties. The aim was to see how the trees would perform when managed by a grower in a commercial setting. While a couple of varieties did result from the trials, over time, the official trials fell by the wayside, but Andrew maintained his interest in the trees.

"I started selecting what I thought were better strains and taking notes on them," says Andrew.

Over the many years of observing the trial trees, Andrew kept an eye out for any branches that looked different and produced different fruit – a 'sport' or bud mutation. Tasmanian Tiger Fuji came from one of these sports.

"The variety was totally different to anything else, simply because of its unique characteristics," says Andrew.

But Tasmanian Tiger Fujis didn't start life out as a unique, branded product.

The story behind the brand

To start with, the apples were just exported as Fuji.

"Exports were always a big part of this business, and we knew that we had to spread our risk, so we didn't want to go totally domestic, so we decided to take a chance and focus on exports," says Andrew. "For a lot of years it didn't work. It was hard, and I wondered whether we'd done the right thing."

And the reason it didn't work?

"Because the Australian dollar went through the roof, and we tried to export with the dollar at \$1.08, and we returned 50 per cent of production costs, and that's not good in anyone's language," explains Andrew. "So we kept wondering what we could do to turn it around.

So with a variety that was indeed different they decided to embrace the fact.

"We decided that because the variety is different, it deserved a name of its own," says Andrew. "I had always called it a Tiger Fuji so that's how it got started."

Baden then developed the branding to go with the name.

"I have been a big fan of Tasmanian Tiger Fuji for a few years and we both knew the apple just needed to be given the right opportunity and it would succeed," says Baden.

Tasmanian Tiger Fujis are already off to a good start with a clever brand name for the Chinese market where tigers are a symbol for strength and power – a positive image to associate with. Andrew came up with the name Tasmanian Tiger Fujis himself. It neatly plays on the known clean green image of Tasmania; the symbolic meaning of the tiger as reflected in the striped look of the apples; and a much loved apple in Asia – Fuji. A further twist that 'Australian-ifies' the brand is Tasmania's own history and mythology around the elusive (or is it extinct?) Tasmanian Tiger – adding the concept of rarity and uniqueness to the brand.

"It's a striped variety, it is just going to be grown in Tasmania and the Tasmanian Tiger is a pretty iconic image for Tassie," says Andrew. "A lot of people believe that the Tasmanian Tiger is extinct, but I'm not one of those, I believe it's out there somewhere. It's a pretty rare animal, which links with a pretty exclusive apple."

To help with marketing and promotions, the Chinese buyers have indicated that they want to hear more of the 'story' behind Scott Brothers and Tasmanian Tiger Fujis.

"The market's wanting us to be more involved than we traditionally were with exporting," says Andrew. "They're wanting the story of the product and where it's come from, and this is an area we will work on.

"We're always trying to improve what we do, trying to do our job better and trying to provide better service and better outcomes."

Managing supply

Scott Brothers produced slightly more than 400 bins of the Tasmanian Tiger Fujis this year, and they expect to have 500 plus in the coming season, if all goes well. They also expect that will grow or plateau out a little higher than that and are planning to graft some more of their trees over to the variety.

► "The intention is to increase our grower base in Tasmania and to see if we can prove that the variety is sustainable and profitable," says Andrew. "It's not something we want to necessarily keep to ourselves. It's something that we want to continue to grow, but it's a uniquely Tasmanian product, designed to grow in Tasmania.

"We've had interest from all over the place for it, which is good, but at this point in time we see the greatest strength as producers is the fact that we have it here in Tasmania only."

And he remains clearly focused on returning profits to growers.

"It's going to be driven from the grower up the chain and not the other way round," says Andrew. "That's what we really want to see, a viable opportunity for export."

Tasmanian Tiger Fujis are grower-friendly trees that don't have the russeting problems that other Fujis traditionally have. Their yields are estimated at more than 50 tonnes per hectare and they produce naturally medium-sized apples that colour well in Tasmania's environment.

The fruit has a nice skin finish, is aromatic and has a good shelf life, a characteristic it was especially selected for so it could handle the journey to Asia.

Exports – always good

"I think it would be fair to say that, for fruit growers in Tasmania, it's always a positive time to be in the industry when we are exporting," says Andrew.

Scott Brothers is by no means new to exporting – with a history of growing apples that spans back to 1854 and across Tasmania's heyday as the Apple Isle thanks to its contribution to supplying the United Kingdom with apples.



Andrew himself is a sixth generation apple grower and has childhood memories from the 1970s of a time when the ships sailed directly to Port Huon to load up with apples to ship to the world.

"That was an exciting time for the Huon Valley," says Andrew. "As kids, we grew up in an export industry. It was nothing to see an apple ship tied up either side of the wharf, and another waiting to go in."

When shipping containers took over and consolidation in the industry occurred, shipment of apples was transferred to Hobart. Andrew recalls shipping massive quantities of Red Delicious apples to Asia in the 1980s, with fruit also going to India, Taiwan, Malaysia and Singapore.

Up until the 1990s, fruit was still being shipped internationally directly from Hobart, but now Hobart's port does not service international freighters and Tasmanian fruit has to head to Melbourne first before it can travel overseas – a very costly leg of the journey.

"As the dollar started to rise, it all got a little bit tougher, and on and on it goes," says Andrew. "People started to drop out of the industry, so all of a sudden there was not quite the volume there once was.

"But we've managed to export something in some capacity every year. We haven't missed a year where we haven't exported our apples – even in the middle of the global financial crisis when the dollar was at parity or above."

But now he sees the tide is turning again – and it could be good news for apples growers.

"We've seen China open up, but not only China, it's amazing the amount of product that goes into markets in Indonesia, Thailand, Singapore and Papua New Guinea," Andrew says.

He even mentions the potential, and history, of exporting to the Pacific Islands, Mauritius and Europe. But he is pragmatic and knows that market access may change or other factors may affect the profitability of exports.

"We've tried to spread our risk around by selling some apples locally, domestically (onto the mainland), and export," says Andrew.

Moreover, Andrew is also open to exploring derivative products associated with the Tasmanian Tiger Fuji brand that may help to spread their risk and build the entire brand portfolio.

Acknowledgements

Many thanks to Andrew and Leeanne for their time to help prepare this article, to Baden Ribbon for his input, and to Fred and Hannah photography for taking the photos. :afg

Hope and Help

for growers affected by hail

Don't give up on your crop, was a key message from a meeting convened to help Goulburn Valley fruit growers affected by recent hail, because there is help available and clever marketing can also help to sell fruit that has survived the hail.

n Sunday 11 October, a short but intensive hail storm hit some fruit-growing areas of the Goulburn Valley, Victoria, affecting pear, apple and stone fruit orchards. The path of the storm passed through about 30 per cent of the plantings of apples and pears in the Goulburn Valley.

With input from eight local growers across 315 hectares, Fruit Growers Victoria (FGV) assessed the severity of the damage and per cent of fruit damaged (*Table 1*). In the area affected, FGV estimates that 65 per cent of pears have been damaged and 47 per cent of apples.

Table 1. FGV assessment of fruit damaged.

	Apples	Pears	
Severity*	2.4/4	3/4	
% of fruit damaged	47%	65%	

^{*} On a scale of 0 to 4, where 0 represents no damage and 4 represents irreparable damage.

Victoria produces around 90 per cent of Australia's pears and the Goulburn Valley is the main region for pear production. So any damage to the pear crop there could affect the entire nation's pear supply.

FGV's Véronique Froelich presented data supplied by SPC Ardmona showing that around 16,000 tonnes of pears could be lost. In 2013-14, Australia's total pear crop was around 105,000 tonnes. So a loss, of 16,000 tonnes would represent a 15 per cent drop in production – if none of that fruit was salvageable (note this is a worst case scenario). However, this is all in the preliminary assessment done in the first few days after the storm and the



A helping hand is available for pear growers affected by the hail storm for financial, technical, psychological, or business support.

stage of development of the crop is still in the cell division stage – so it's early days.

Tony Filippi, FGV Industry Development Officer, explained that it was important for growers to re-assess their orchards in a few weeks' time as the nature of the damage may not be immediately clear.

Assess damage

"You need to calculate the numbers of fruit still left on the tree and do a mock pack out based on first, second and juice grade to determine where you stand," said Tony. "Before you invest in thinning, spraying and carrying the fruit to harvest – before you do any of that – start doing the figures to determine which way you should go.

Growers should be careful not to remove too much fruit during thinning after the hail damage, because there may be more.

"At the moment, what I have seen is that there is still fruit out there, it is damaged, but let's wait and see how it goes first."

He emphasised the importance of not abandoning the crop because it may still have value and because good orchard management will ensure trees are kept healthy and pests minimised – not just for the benefit of individual orchard blocks, but for the benefit of the entire region.

"The health of your trees is really important because next year they are going to be paying your bills and they will have to work harder to pay your bills so don't put them in a situation where they can't do it."

Recovery management

Orchards can be affected by hail in all sorts of ways from leaves and fruit being stripped from the tree to damage to flowers or bark. Orchard management after hail damage is essential to the health of the trees and the fruit yield and quality. Different management measures need to be taken depending on the severity of the damage.

Petar Bursac, who has recently joined FGV as a new Industry Development Officer, outlined the recovery steps following hail damage that growers can take.

"After hail we have perfect conditions for disease development," said Petar. "The two most important diseases at this time are apple scab and brown rot, so fungicide treatment needs to be done immediately after hail damage.

"Fungicide treatments include both preventative and curative treatments."

Petar further explained that different fungicides may also contain zinc, which encourages plant growth, or manganese, which inhibits plant growth. Fungicides should be selected and used with these additional properties in mind depending on the outcome sought.

Other key points that FGV recommends to manage hail-damaged trees:

- Hail wounds need fungicides to prevent disease entry.
- Severely damaged stems and branches should be pruned.
- Remove fruit that has fallen to the ground.
- Replace young trees if severely damaged.
- Fertilise and irrigate at optimum levels to reduce stress.
- Regularly inspect for pests and diseases.
- Large wounds should be covered with a water-based paint.
- Summer pruning to retrain young trees and optimise growth.
- Use fruit thinning selectively to remove hail-damaged fruit and to improve the quality of remaining fruit.

FGV reminded growers again that if too many growers walk away from their orchards, a pest problem may develop that could affect everyone. They emphasised that help was at hand so talk to them or your local agronomist for help.

Market tolerance of affected fruit

Growers should be careful not to remove too much fruit during thinning after the hail damage, because there may be more marketable fruit than first appears.



While some pear fruitlets have been damaged very seriously, others only have superficial damage and could still be grown and sold.



These pears will wear some battle scars, but they've survived and that survival needs to be celebrated.

 Assess the damage to your orchard and

Contact your packer to discuss options.
Do a business plan – there is help available.

 Maintain orchard and crop as close to normal as possible.

Key points

crop.



The degree of damage to each individual fruitlet is variable – closely assessing trees will help to accurately determine the extent of damage and therefore what can be done to salvage the crop.

d Tony. "If there Wise counsel

Deciding how to manage a hail-affected orchard also depends on what else is happening across the business and in people's lives.

Thomas Chick, Kyabram Rural Financial Counsellor at Goulburn Murray Hume Agcare offered assistance and counsel across finance and business management to help growers tackle the challenge.

"What's the most important thing on your orchard – I'm looking at it – it's you," said Tom. "Our service can help you get through this."

Goulburn Murray Hume Agcare is a non-profit organisation funded by the State and Federal Government that provides free help to farmers in times of financial difficulty.

"Our service is free and confidential," Tom explained. "We deal with individuals, whatever is discussed is between you and your counsel. We are impartial and we don't form judgements.

"Our role is to assist farmers to understand their financial position – determine what costs are coming up and help figure out how they can be paid such as in instalments or deferred.

"If you plan for it, we can find ways to manage it, but if you ignore it your problems can get bigger."

Tom outlined other help that was available through Centrelink including their Farm Household Allowance that provides financial help for farmers during difficult times. For more information on this allowance contact the Farmer Assistance Hotline on 132 316.

Connect with Goulburn Murray Hume Agcare on 1300 834 775, info@gmhagcare.org.au or visit their website for more information on www.gmhagcare.org.au.

Other resources

"Once you take it off – that's it – it's gone," said Tony. "If there are new market opportunities for different types of fruit in one to two months' time – closer to harvest – if you have already taken the fruit off in the next couple of weeks, it's too late, you can't pursue those market opportunities.

"Find out how much remaining fruit of Class 1 and 2, canning, juicing quality is left. Directing to canning and juice may be an option if it is financially viable."

Tony presented the outputs of a spreadsheet in a table that showed the difference in return if a few more per cent of Class 2 fruit could be reclassified as Class 1 fruit.

He suggested that there will be work to be done with fruit buyers to consider extending the market specifications for fruit to accept different looking fruit, which is still tasty and nutritious, as Class 1 fruit.

"Talk to your buyers because maybe they can help find markets for it too – these are also the sorts of ideas we can explore as a group," Tony said.

Our 'Hailstorm Heroes'

Olivia Tait, APAL's Market Development Manager, shared some preliminary marketing ideas to turn any pears affected by the hail into a positive and exciting marketing campaign.

"These pears are our 'Hailstorm Heroes'," said Olivia. "These pears will wear some battle scars, but they've survived and that survival needs to be celebrated.

"We've got a job convincing the retailers to change their specifications to accept this fruit, and we have to encourage consumers to reward this fruit rather than discard it."

APAL has already started organising a pear promotional campaign that embraces the Hailstorm Heroes.



High orchard performance depends on good thinning

By John Wilton, AgFirst

THE 2014/15 SEASON WAS A VERY GOOD TIME FOR POME FRUIT ACROSS AUSTRALIA. THE POSITIVE RESULTS WERE PARTLY DUE TO A KINDER THAN NORMAL CLIMATE FOR GROWING APPLES BUT THIS APPEARS TO HAVE BEEN A MINOR FACTOR.

rchardNet[™] shows that the increased crop performance was mainly in those varieties that have been planted to modern intensive growing systems in recent years. Comparing 2015 variety yields with five years ago (2011), shows that the older varieties now have upper quartile orchard performance falling from 63.1t/ha to 54.9t/ha for Jonathons, and 59.2t/ha to 50.0t/ha for Red Delicious.

Also in the last five years, the average of the upper quartile gross production has lifted between 16 and 30 per cent for the main varieties of Cripps Pink, Gala, Fuji and Granny Smith. Similar productivity lifts have occurred in average variety yields.

The emphasis has been placed on the average of the upper quartile performance because the key to lifting orchard performance lies in demonstrating to orchardists what is possible in the way of yield.

Increasing Scifresh yields

In recent years in New Zealand, we had a good example of increasing the performance with the apple variety Scifresh (that is sold under the trademarked name of JazzTM).

Seven or eight years ago the yield ceiling for this variety was thought to be in the region of 60t/ha. At that time, an extension program for that variety involving discussion groups, orchard walks and grower meetings was implemented with the objective of improving its performance as well as solving fruit condition and other problems that may not appear until the fruit has reached the market. Today, average yield for Scifresh exceeds 60t/ha by a comfortable margin. Lifting grower perception of what is possible was one of the key factors in pushing up Scifresh orchard performance.

Our Australian database shows the top performing blocks are now producing in the region of 100t/ha or more. The challenge now is to lift more of them into that zone and achieve yields of this order on a regular basis without the problem of biennial bearing.

Thinning is critical to high orchard performance

By now the chemical thinning response should be well under way and for very responsive varieties the drop is probably complete. It is very unlikely that the chemical thinning program will have removed the need for hand thinning or, if it has, this suggests it was a bit on the aggressive side.

Thinning, in my opinion, is the most critical orchard husbandry task when it comes to maximising yield and quality. The sooner the crop load is brought down to optimum levels, the closer you will be to capturing the genetic potential of the crop in regard to yield, fruit size, colour and quality. The level of return bloom is also determined by the time the crop load is brought down to optimum levels.

To minimise biennial bearing risk and maximise the potential of the crop, optimum fruit numbers need to be achieved within about six weeks after full bloom for varieties with strong biennial bearing tendencies. Varieties particularly prone to biennial bearing include Fuji, Braeburn, Golden Delicious, Scifresh and, to a lesser extent, Granny Smith. Cripps Pink and the Gala group are relatively forgiving when it comes to cropping and are much less likely to go biennial, but will under tough growing conditions subjected to high summer temperatures. Trees on dwarfing rootstocks tend to be less prone to biennial bearing but, if they happen to go biennial, are very difficult to bring back into regular cropping.

Table 1. Change in productivity (2011 to 2015) for the main apple varieties.

V	2015 UQ Number of blocks		ocks	2011 UQ	Number of blocks			
Variety	Gross	>100t/ha	>90t/ha	>80t/ha	Gross	>100t/ha	>90t/ha	>80t/ha
Cripps Pink	96.25t/ha	7	21	55	74.07t/ha	3	5	15
Gala group	64.06t/ha	0	0	3	52.04t/ha	0	0	2
Fuji	69.41t/ha	1	1	4	59.62t/ha	0	0	4
Granny Smith	91.53t/ha	4	7	16	71.15t/ha	2	2	3



Well thinned Fuji – early thinning to spaced singles will ensure good colour and return bloom.

Thinning, in my opinion, is the most critical orchard husbandry task when it comes to maximising yield and quality.

Know the numbers

Fruit and cluster counts on a few trees in each block are necessary to determine a thinning strategy. Counting whole trees is time consuming but necessary to obtain a picture of the overall fruitset level. Once a few trees have been counted, reverting to just counting fruiting branch units in the vicinity of 2 to 3cm in diameter at random across the block will give a good indication of how fruitset and therefore thinning requirements will vary across the block.

We do not have good Australian data for optimum fruit number per cm² branch cross sectional area (BCA) but I suspect it will be in the three to five fruit per cm² BCA range depending on variety. Royal Gala and Cripps Pink will be at the upper end of that range while large fruit varieties such as Fuji will be towards the lower end of the range.

With mature canopies, previous yield and fruit size history can be a good guide to the level of crop load the block can carry. With younger trees that have not filled their allotted space trunk cross sectional area (TCA) can be used. It is not as reliable as BCA and the fruit numbers per cm² TCA need to be adjusted downwards as trunk size increases. While trees are small with trunk diameters up to about 5cm, crop loads can be in the region of 10 to 12 fruit per cm² TCA, dropping back to around six fruit per cm² TCA for trunk diameters of 7 to 8cm.



These second leaf red strain of Cripps Pink have failed to colour well due to over cropping. Crop load is estimated to be 20 fruit/cm² TCA.

Thinning priorities

Once fruit numbers are known, a block by block hand thinning strategy can be developed for each variety. A hand thinning priority programme also needs to be worked out. 'On' crop and heavy set areas need to be hand thinned first with particular emphasis placed on getting to varieties such as Fuji, which have strong biennial tendencies as soon as possible in the hand thinning program.

The effectiveness of the chemical thinning program will also determine the order of hand thinning. Where the chemicals have worked well and there has been good fruit shedding, particularly out of clusters, hand thinning of these blocks can be left until later.

Bunchy crops and those varieties with short stems need to be hand thinned early with the objective of having them thinned before the bunches close. They are easy to do before this stage and become very difficult once the bunches have closed.

The pre-thinning fruit and cluster counts will show how many fruit need to be thinned off to bring the crop down to optimum levels and whether or not it will be necessary to leave doubles on some of the better sites. Where fruit distribution and numbers allow it, the best strategy is to thin down to spaced singles. Often there are not enough fruiting sites to do this and still achieve desired crop load so some doubles will need to be retained on strong buds. Tip buds with bourse shoots handle multiple fruit numbers better than normal spurs.

The poorest fruit is found on auxiliary buds of one year old fruiting laterals. Sizing potential of this fruit is up to 30 per cent less than tip or spur buds and for varieties susceptible to stem end russet, these fruit have a high incidence of russet.

Table 2. Optimum fruit number per branch.

Optimum	Branch Diameter				
Optimum fruit number/cm ² BCA	1.5cm	2.0cm	2.5cm	3.0cm	3.5cm
3	5	9	15	21	29
4	7	13	20	28	38
5	9	16	25	35	48



These Fuji were well thinned with BA and have high fruit colour.



These Fuii were not chemically thinned and have a heavier crop and much poorer fruit colour than those shown in the photo to the left.

Monitoring the thinners

Fruitset and chemical thinner response is generally determined by tree vigour. High vigour trees shed fruit readily and will require less hand thinning than lower vigour trees. Where there is a wide variation in tree vigour within a block, it is a real challenge to get sufficient hand thinning on the weaker trees. This is where setting thinning specifications by branch size really pays off. Monitoring the hand thinners is quick and easy. Adjusting their level of thinning is simple and once you get a picture of the fruit density on these branch units it is relatively simple to assess the quality of the thinning job.

Although branch unit counts are the main thinner assessment tool it is still necessary to do some post-thinning, whole tree fruit counts to make sure that the crop load is where you want it. This is particularly important for weaker growing, heavy fruitset

areas where it is very difficult to get thinners to remove sufficient fruit. Incidentally, there is often significant fruit drop between hand thinning and harvest so target crop loads at hand thinning time need to be 10 to 15 per cent higher than the number you expect to harvest.

With high value, partially coloured varieties, crop load has a huge impact on harvest fruit quality. Too much crop will markedly suppress colour development. With these varieties a second thinning pass towards harvest to remove poorer quality fruit can pay big dividends in terms of lower harvesting and handling costs as well as lifting fruit value through better colour.

A second thinning pass is only possible where the crop is already largely in singles, otherwise sunburn injury following late thinning can be a big problem. The first thinning pass should aim to bring crop loads down to 110 to 120 per cent of final fruit numbers.



Biennial bearing

The thinning strategy and particularly the time of thinning is an important strategy for managing biennial bearing. There is good data to show that the chances of a return crop are greatly improved if excess crop is thinned off within four to six weeks after full bloom.

Along with a good chemical thinning program that employs products like ethephon, ATS and benzyladenine (BA), early hand thinning to remove excess crop is a major step in overcoming biennial bearing. Where biennial bearing is entrenched, thinning alone is usually insufficient to bring the crop back next season.

So in addition to a robust thinning program, other measures need to be implemented as well. Where vigour is high, getting vigour under control will help. The most effective tool at this time of the season for vigour control is trunk girdling done in mid to late November once the fruit drop is underway. In winter or early spring, pruning out strong, high vigour branches to stack the tree canopy with weak pendant branches is a good way to work the vigour out of the tree.

Root pruning can also be very successful but has to be done in the late dormant, early bud break period to avoid excessive water stress problems. Growth regulators also play an important role in managing the biennial bearing problem.

Sequential sprays of ethephon at low rates over the main shoot growth period in late spring/early summer can be quite effective on some varieties for both vigour control and improving return bloom. There is also research data to show that adding ethephon to the later prohexadione-calcium vigour control sprays improves return bloom.



Summer stubbing of annual shoots is an effective way to turn excess vigour into useful fruit bud.



These Fuji have been well thinned and while their fruitlets were small, the fruit is largely in singles and is colouring well.

There has been a lot of trial work done in north America with sequential sprays of NAA at 5ppm through the mid growing season commencing five or six weeks after full bloom to stimulate flower development. Usually three applications are made in the cover sprays at 10 to 14 days apart. These recommendations have now been written into many of their state pome fruit production manuals.

We have adopted this strategy here in New Zealand and have found it very effective on our biennial varieties. The application window for us is late November through December. We are also aware of this program being used in Australia with good results on Fuji.

Summer pruning

Where annual growth is causing shading problems in the canopy, stripping the offending water shoots out in late spring, while they are still soft and can be easily pulled out, is an easy way to deal with this problem and minimises regrowth. Incidentally, their removal improves visibility within the canopy and makes hand thinning much easier because you can see the fruitlets much better.

Late spring shoot tipping somewhere in the 7 to 10 open leaf stage of growth is also a good vigour control measure and can turn excess vigour shoots into useful fruiting sites. :afg

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Fruit surface temperature and sunburn damage of red-blushed pears

Lexie McClymont, Ian Goodwin, Rebecca Darbyshire and Susanna Turpin

As we head into summer, the pear team from the Horticulture Centre of Excellence share their latest research on sun and temperature damage in red-blushed pears.

ear fruit are subject to sun damage from high fruit surface temperature. The potential losses of new fresh market red-blushed varieties could be high without better knowledge of their susceptibility to sun damage.

Many studies have been undertaken in apples to determine fruit surface temperature thresholds for different types of sun damage and to develop relationships between weather conditions and fruit surface temperature. Similar information for pears will be useful for the design and management of orchards where growers are shifting from traditional growing practices (free standing vase-shaped trees planted at low density) to modern high density plantings using dwarfing rootstocks and training systems that create 'fruiting walls' with greater fruit exposure to solar radiation.

Our research focused on ANP-0131 pears that were bred as part of the Australian National Pear Breeding Program and will be marketed under the name Deliza®. We monitored the fruit surface temperature of ANP-0131 pears on BP1 rootstock continuously from late-December until harvest during the 2014-15 season at the Department of Economic Development, Jobs, Transport and Resources (DEDJTR) research farm, Tatura, Victoria.

Fine-wire thermocouples were installed just under the skin of 54 fruit from four trees to measure fruit surface temperature every minute. The trees, planted in winter 2009, were 0.75 metres

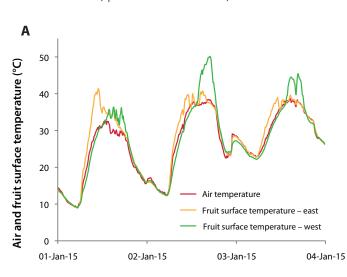
apart in north-south oriented rows spaced at 4.0 metres and trained on Open Tatura trellis. Two of the trees were grown on the eastern arm of the trellis and two were grown on the western arm.

At harvest, all fruit on the four trees were assessed for level of sunburn damage on the following scale:

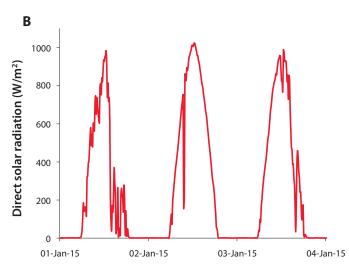
- 0 = no sunburn
- 1 = bleaching of colour or very slight sunburn browning
- 2 = slight browning
- 3 = moderate browning
- 4 = severe browning
- 5 = slight sunburn necrosis
- 6 = moderate sunburn necrosis7 = severe sunburn necrosis

Overnight and during the early morning, fruit surface temperatures were similar to air temperature. As fruit became sun-exposed, fruit surface temperature rose above air temperature. The maximum fruit surface temperature recorded was 50.8°C on 2 January 2015 at an air temperature of 38.3°C.

Although fruit surface temperature correlates strongly with air temperature, it is the energy provided by direct solar radiation (i.e. sunshine) that predominantly drives fruit surface temperature



Air temperature (red line) and fruit surface temperature of two Deliza® pears grown on the eastern (orange line) and western (green line) arms of an Open Tatura trellis.



Direct solar radiation (red line) at the DEDJTR research farm, Tatura, in early January.

▶ during daylight hours. For example, air temperatures were similar on 2 and 3 January 2015; however, cloud cover lowered direct solar radiation in the afternoon on 3 January resulting in lower fruit surface temperature.

Other weather conditions, such as air temperature, wind and relative humidity, mediate fruit surface temperature by influencing the transfer of energy from the fruit to the atmosphere.

Studies published in a 2003 Acta Horticulturae article titled 'Environmental stresses that cause sunburn of apple' conducted in Washington State, United States of America, showed that apples are most at risk of sun damage in the afternoon, between 14:30 and 16:45. In our experiment, fruit grown on the western arm of the trellis reached maximum fruit surface temperature in the afternoon, most commonly between 17:00 and 18:00 daylight saving time.

However, maximum daily fruit surface temperatures were often reached earlier in the day for fruit on trees grown on the eastern arms of the trellis. For instance, fruit surface temperatures up to 44°C were recorded between 09:00 and 10:00 for fruit grown on the eastern side of the trellis, and one such fruit recorded a fruit surface temperature of 49°C at 11:00 in late January.

Overall, fruit grown on the western arm of the trellis were the hottest, but fruit grown on the eastern arm were still susceptible to sun damage.

Acknowledgements

This study was supported by funding from the Victorian Department of Economic Development, Jobs, Transport and Resources, and the Australian Government Department of Agriculture. :afg



No sunburn = 0





Slight sunburn browning = 2



Moderate sunburn browning = 3



Severe sunburn browning = 4



Slight sunburn necrosis = 5



Moderate sunburn necrosis = 6



Severe sunburn necrosis = 7

Table 1. Percentage of fruit with sunburn browning and sunburn necrosis, and average of sunburn assessment scores (0 - 7).

Block	Sunburn browning %	Sunburn necrosis %	Average sunburn score
East	19	3	0.6
West	26	4	0.7

About the authors:

Susie Murphy White, Lexie McClymont, Ian Goodwin, Rebecca Darbyshire and Susanna Turpin all work with DEDJTR at the Horticulture Centre of Excellence. Contact Lexie for more information:

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Invest in energy efficiency – better than putting money in the bank

After an energy audit of his business, apple grower and packer Ian Cathels of Ardrossan BATLOW APPLES, NSW, HAS IMPLEMENTED SOME ENERGY-SAVING MEASURES THAT HAVE SIGNIFICANTLY REDUCED HIS ELECTRICITY COSTS.

ast year, KMH Environmental conducted energy audits in 30 I fruit production businesses across Australia as part of APAL's Watts in Your Business program to identify ways that fruit growers could save energy.

NSW apple grower and packer Ian Cathels of Ardrossan Batlow Apples had one of those energy audits done in his packing shed and orchard.

"We always wanted to get solar panels but we could never get the right information to be confident in what we were doing," explains lan.

"The audit process identified the areas where we could improve our efficiency of electricity use. It was then a matter of looking through the results and trying to implement the measures suggested in the best way that we could.

"The solar cells on the roof and the power factor correction unit were the ones we identified as the prime ones to do first of all."

At Ardrossan Batlow Apples they produce and pack around 4,000 tonnes of apples every year. From March 2013 to February 2014 the pack house and cold stores consumed over 488,000 kWh of electricity at a cost of approximately \$138,000.

Through the audit, Ian discovered that while the cool rooms used a lot of energy particularly when the newly harvested and hot fruit from the orchard is first brought into the cool rooms - they were not using as much energy as he thought and the packing shed was using more.

"The cool rooms use the most electricity when you are pulling down the temperature to get the field heat out of the fruit," says Ian. "But what we found was that they are not actually using as much power as we thought, because once they have been pulled down to temperature and together with the insulation, they are working guite well.

"The packing shed is probably using a little more power than we realised – and that's where the solar is helping us out. We use most of our power during the day, which is the most efficient way of using solar."

lan has now installed a 50 kilowatt solar system of more than 200 panels on his packing shed, replaced three meter boards with one and installed a power factor correction unit.

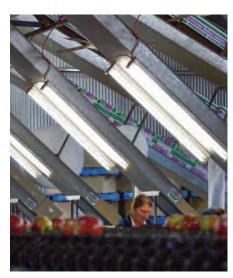
While a big up-front cost initially, Ian has calculated that the investment in all the energy-saving measures he has taken will deliver more in savings than putting the money in the bank.

"Last month's power bill was half what it was last year," says lan. "I'm hoping that between implementing the solar and the new switch board it will pay back the cost in four years.

"Hopefully we'll get a good 20 years out of the panels and if everything keeps



lan Cathels looks at the bank of solar panels he has installed on his packing shed in Batlow, NSW.



As part of APAL's Watts in Your Business project, an energy audit was completed at Ardrossan Batlow Apples' packing shed to identify ways to save energy.



The electricity bill for the Ardrossan Batlow Apples' packing shed has been cut in half since solar power and a power factor correction unit were installed.

going the way it is, we can get another set of panels and reduce our electricity costs even more."

Their overall energy consumption has gone down around 15 per cent, their maximum demand (which determines about half of their electricity costs) has gone down by 28 per cent, and, coupled with changing prices, they have seen a 25 per cent reduction in their overall electricity costs.

More information on the Watts in Your Business program and ways to reduce energy use is available on APAL's website www.apal.org.au/watts-in-your-business.

Acknowledgements

Many thanks to lan for sharing his story and hosting a visit by APAL to his packing shed.

APAL's Watts in Your Business program was funded under the Australian Government's Energy Efficiency Information Grants program and the energy audits were conducted by KMH Environmental. :afg

Last month's power bill was half what it was last year.

Finance to improve your your energy efficiency

GROWERS INTERESTED IN UPGRADING THEIR OLD EQUIPMENT WITH NEW, ENERGY EFFICIENT TECHNOLOGIES MAY BE INTERESTED IN THE ASSET FINANCING PROGRAM OF THE CLEAN ENERGY FINANCE CORPORATION (CEFC).

The CEFC's program supports small and large scale projects by partnering with private sector businesses, such as large commercial banks, to facilitate and provide funds for energy efficiency, low emissions and renewable technology related programs in Australia.

APAL Industry Services Manager Annie Farrow said the opportunities from the program should prompt growers to better understand their energy costs and seek ways to reduce them.

"On average, apple and pear businesses can save \$16,300 per year from cost effective upgrades with a payback period of six years or less," said Annie.

There are a couple of options to consider in regards to the types of finance available.

Energy Efficiency Equipment Bonus

In July, the CEFC teamed with the National Australia Bank (NAB) to provide \$120 million of finance that supports energy projects of up to \$5 million per business.

The CEFC-NAB program will finance a broad range of activities, including higher fuel efficiency vehicles, variable speed pumps for irrigation, upgrades to refrigeration and solar infrastructure. The program is available across a broad commercial base with a particular emphasis on agribusiness and regional Australia.

Energy Efficient Loans

CEFC also works with the Commonwealth Bank (CBA) to cofinance energy-efficiency, low emissions and small-scale renewable projects to help businesses reduce energy costs. The Energy Efficient Loan can be used to finance up to 100 per cent of the asset purchase price, allowing borrowers to preserve working capital for other purposes, and loan terms can be aligned to the effective life of the equipment.

Loans will typically range between \$500,000 and \$5 million under this \$100 million project. The loans can be used across a wide array of energy savings technologies, including energy efficient lighting, industrial refrigeration, energy efficient motors, pumps and fans, solar systems and battery storage and variable speed drives.

Peter Radevski, from Radevski Coolstores and recipient of APAL's 2015 National Awards for Excellence Environmental Award, has utilised the Energy Efficient Loan finance through the CBA and CEFC twice.

"Through this program Peter has been able to access \$1.15 million towards the refrigeration upgrade and \$4.2 million for a new fruit grader and solar PV installations," Annie said.

For more information contact CEFC on 1300 002 332

Listen to Peter Radevski discuss the changes he has made in his packing shed and how he was able to work with the CEFC.



Pear exports best in a decade

By Wayne Prowse

AUSTRALIAN PEAR EXPORTS ARE AT THEIR HIGHEST IN A DECADE THANKS TO GOOD GROWING AND TRADING CONDITIONS AND RENEWED INTEREST AND COMMITMENT FROM GROWERS.

ustralian pear exports are up 38 per cent growth to 6,888 tonnes during the first eight months of 2015 with a value of \$10.9 million and are on track for the best season result since 2005. Ideal growing conditions, a favourable exchange rate and renewed export optimism have combined to generate the lift in trade.

Moreover, in the year between August 2014 and August 2015, Australia exported 8,816 tonnes worth \$14.1 million. This is a great result since the last time the annual exports of Australian pears were higher than \$14 million was in 2003.

Four markets – Canada, Indonesia, New Zealand and Hong Kong – accounted for 75 per cent of Australia's pear export trade over the 12 month period to August 2015.

Canada imported within 2 per cent of last year's Australian pears by volume, and Indonesia lifted 44 per cent to date as Australia clawed back some share from other suppliers. New Zealand is trading 31 per cent higher in the mid stages of their import season looking promising for a strong 2015 result.

However, the most impressive result has been the resurgence of Hong Kong as a market taking 678 tonnes this year after just 45 tonnes last year.

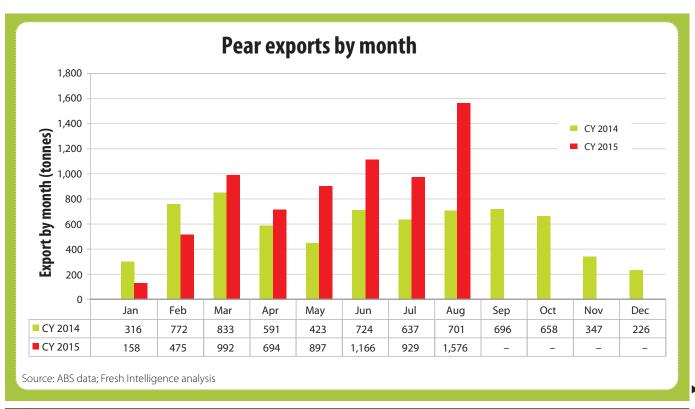
In other markets, Singapore increased 250 per cent to 471 tonnes taking share away from competitors, and modest gains from Pacific Island markets.

After almost a decade of exports being sub \$10 million it is encouraging to see resurgence and it may continue.

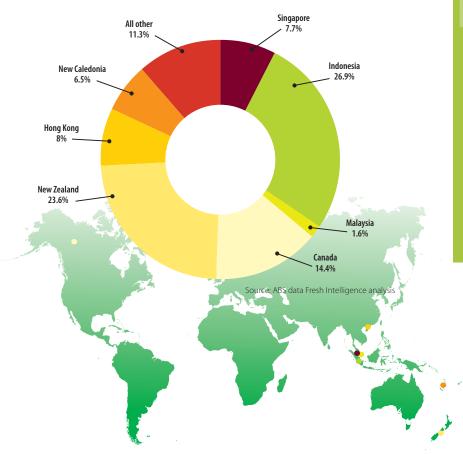
Imports

From September 2014 to August 2015 Australia imported 1,620 tonnes of Asian pears of which 93 per cent were from China and the balance from South Korea. Asian pear imports from South Korea were suspended in June 2015 but resumed in October 2015.

Overall, the result was 25 per cent higher than the same period last year though well below the 10-year average of almost 3,000 tonnes imported per year. : afg



Pear exports by market destination - 8,816 tonnes - 12 months to August 2015



Australian pear exports are up 38 per cent growth to 6,888 tonnes during the first eight months of 2015 with a value of \$10.9 million.

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International apple and pear research update

Compiled by Dr Gordon Brown

Research snippets are sourced from abstracts of published scientific papers collated in the CAB direct database. To get the abstract related to any snippet please contact Gordon Brown on gordon@scientifichorticulture.com.au or 03 6239 6411.

Nurseries and new varieties

Nursery tree feathering

Serbia: Applying cytokinin, 6-benzylaminopurine, increases the number of feathers and feather length in the nursery but decreases tree height but this can be avoided by the addition of GA4+7.

Carotenoids in apples

New Zealand: The genetics of carotenoid production in apples for breeding and selection purposes is being explored.

Sugar in apples

USA: The genetics of fructose and sucrose production in apples is being investigated to develop a method of selecting high sugar lines from breeding programs.

Production

Promoting red colour

China: Spraying apple trees with 5-Aminolevulinic acid and/or Genistein promotes anthocyanin accumulation and hence red colour of the fruit.

Reducing bitter pit

USA: In bitter pit trials on Honeycrisp apples it was found that full season calcium treatments at high rates are needed to reduce this problem.

Reducing fruit drop

Moldova: A single application of NAA reduces preharvest fruit drop of Golden Reinders apples.

Pre-bloom thinning

France: Efficiency of pre-bloom mechanical thinning of apples depends on the leaf area removed rather than the mechanical removal of flowers.

Postharvest

1-MCP for pears

China: 1-MCP application preserves the quality and shelf life of pears stored at 25°C and 90 per cent relative humidity.

Detecting fruit rot

China: Using hyperspectral imaging and appropriate mathematical algorithms it is possible for an apple grader to detect fruit with rots.

Ultrasounds boost pasteurisation

China: Pasteurisation of pear iuice at 65°C with ultrasound rather than 95°C alone is effective and does not destroy ascorbic acid or phenolic antioxidants.

Salt reduces browning

Australia: Adding a small amount of sodium chloride (salt) to ascorbate dip water halves the amount of ascorbate required to stop browning in fresh cut apple slices.

Pests and diseases

Marigolds reduce nematodes

Pakistan: The addition of marigold, Fertinemakil, neem or sawdust to apple tree soil reduces nematode populations.

Anti-fungal leaves

China: Apple leaves from Alternaria resistant cultivars produce proteins such as Mald1 when infected, which have anti-fungal properties.

Potassium cuts canker

Iran: In pot trials it was found that Cytospora canker of apples had reduced severity with increasing levels of potassium fertilisation.

Rootstock nutrient uptake

Iran: M9 rootstocks are more efficient than MM106 or MM111 at nitrogen and

phosphorus absorption from the soil although MM106 and MM111 are more efficient at iron uptake.

Medfly range extends

Algeria: With climate change leading to warmer autumns, Mediterranean fruit fly has expanded its range into apple growing regions.

Nectria canker hosts

New Zealand: One third of identified plants surrounding apple orchards are related to known nectria canker hosts and nine non-pomaceous species were tested and found to be hosts.

Bitter rot fungicides

New Zealand: Fungicides against bitter rot applied in October to December reduce rot expression on the trees and application in January and February reduce postharvest rots.

Healthy pear polyphenols

Turkey: Arbutin, chlorogenic acid and epicatechin are the major polyphenolics of pears and they are concentrated in the fruit skin.

Pectin health benefits

Korea Republic: Apple pectin has been found to not only reduce the risk of coronary heart disease but also protects the heart from cell death when oxygen is restored.

Hot water treatment

New Zealand: Research has shown that a 51°C, two minute water treatment of apples is a potential quarantine treatment against insects for export fruit.

Temperature and rainfall data 1/9/2015 - 30<u>/</u>9/2015 Ave leaf Rainfall Rainfall Ave Ave Degree Frost Hrs Ave Ave max Evaporation Humidity Soil daylight Temp Temp wind mils wetness to date Days for Degree under period Max Temp speed for the per/day from 1st the month Days from 1°C for hr/day km/h period Jan 2015 1st Sept | period Orange NSW 3 14 10 28 21 15 780 33 65 33 15 11 52 **Huon TAS** 5 16 74 10 27 45 9 26 597 52 13 11 0 Manjimup WA 8 18 68 13 27 72 560 86 86 61 11 **Batlow NSW** 3 73 4 28 862 38 38 39 21 n/a 10 n/a n/a 18 20 21 5 11 28 66 225 87 87 Ardmona 69 11 5 24 60 33 587 55 55 20 Lenswood 16 74 12 41 11 The data presented here is from APFIP's upgraded weather stations at evaluation sites only and may not represent the total district Degree days are recorded from 1 September to 30 April and is reported per month and as a running total for the period. Degree days are calculated for the season immediately following collection of data A much larger range of data from the new stations is now available online at www.weather.apfip.com.au. THE RESIDENCE OF SHARP SHAPE For more information contact: Mark Hankin, 0408 503 528 or mark@apfip.com.au

Greg's Quiz

QUESTION 1:

(True or False):

Greece produces 72% of the world's pickled olives.

QUESTION 2:

What fruit's previous Latin name was Citrus latifolia?

- A: Lime.
- B: Orange.
- C: Lemon.
- D: Pummelo

OUESTION 3:

What apple disorder is caused by overlong storage resulting in the death of the fruit cells?

- A: Water Core.
- B: Soft Scald.
- C: Senescent Breakdown.
- D: Brown Heart.

QUESTION 4:

Some pear varieties that originated in France have the prefix "Buerre" in their names. Translated, what does Buerre mean?

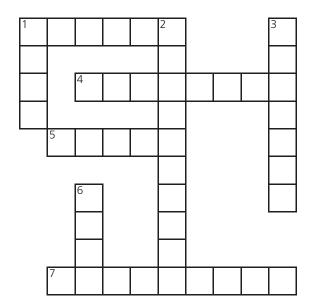
- A: Rough-skinned.
- B: Butter.
- C: Honeyed.
- **D:** Bred in the town of Buerre.

QUESTION 5:

What fruit is sometimes known as the pineapple guava?

- A: Rambutan.
- B: Black Sapote.
- C: Cumquat.
- D: Feijoa

Crossword



ACROSS

- 1. New red pear from Belgium
- 4. Critical for top orchard performance
- 5. This can cut pack shed costs
- 7. Biggest Australian pear importer

DOWN

- 1. Offering clean energy finance
- 2. New horticulture Minister
- 3. They say: Pick right, feel bright
- 6. Port that shipped apples in 1970s

Q 1 – True. Q 2 – A: Lime (now Citrus aurantifolia). Q 3 – C: Senescent Breakdown. Q 4 – B: Butter (implying an in the mouth melting quality). Q 5 – D: Feijoa.

ANSWERS:





Protect throughout flowering so your Apples blossom

There's nothing more satisfying than producing an Apple and enjoying the first bite. DuPont[™] Fontelis® fungicide protects your Apples for up to 10 days from Black spot and up to 21 days from Powdery mildew. It provides the start they need to bloom into pack outs which make you proud.

Spray your crop early with DuPont™ Fontelis® fungicide, watch your Apples blossom and help your business bloom.

For more information, please visit www.cropprotection.dupont.com.au





Appendix 3: Industry Juice, 25 November 2015

APAL Industry Juice - Vol 115

Campaign Preview

HTML Source

Plain-Text Email

Details

Industry Juice Vol. 115, 25 November 2015

View this email in your browser



Roadshows to manage fruit fly

Find out the latest from international and local experts on managing Queensland fruit fly using Area Wide Management by attending a Fruit Fly Roadshow workshop run by Hort Innovation.

Read more...



Hort Innovation AGM

The Hort Innovation AGM is this Friday. If you have a question you must submit it via a form BEFORE the meeting and if you need to delegate a proxy – do it now.



Read more...

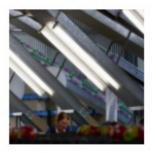




Invest in energy efficiency

After an energy audit of his business, apple grower and packer lan Cathels of Ardrossan Batlow Apples, implemented some energy-saving measures to reduce his electricity costs.

Read more...



Apple and Pear Post-harvest Seminar

APAL is holding an Apple and Pear Post-harvest Seminar in January 2016 to educate and inform packing shed managers, growers and industry about the latest in cold storage.

Read more...



SHAPE THE FUTURE OF YOUR INDUSTRY

Expressions of Interest: Strategic Investment Advisory Panels

Hort Innovation is seeking Expressions of Interest from suitably qualified growers and other supply chain stakeholders for industry Strategic Investment Advisory Panels. Find out more information and apply here.

Horticulture Innovation Australia

Fruit temperature and sunburn in pears

As we head into summer, the pear team from the Horticulture Centre of Excellence share their latest research on sun and temperature damage in red-blushed pears.

Read more...





APFIP weather data

The Australian Pome Fruit Improvement Program collects monthly weather data from six stations around Australia which is reported on the APAL website.

View October data...



FOR SALE: Complete packing line (\$150,000 + GST

- Single lane CVS Unisorter (colour & weight)
- 14 drops (12 tray-filler lines)
- · 5 bin stainless steel automatic water dump
- · Washer, waxer, drier
- Associated carton conveyer & 3M tape machine

Rob Tully 0458 781 392



Opportunity for small business

From 12 November 2016 small businesses will be protected from unfair terms in standard form contracts which will offer an opportunity to negotiate the terms of a contract.





Pear exports best in a decade

Australian pear exports are at their highest in a decade thanks to good growing and trading conditions and renewed interest and commitment from growers.

Read more...



Top news items

- Grower loses everything after devastating hail storm
- Big increase in fruit and veg exports
- 'mycause' page set up for farm accident victim Annie Dunne
- Pre-chopped vegetables for sale in NZ supermarkets

To view all APAL's weekly news items visit our twitterfeed or subscribe to receive daily media clips in your inbox.

Upcoming events

27 Nov: <u>Voice of Horticulture AGM</u>, Sydney, NSW27 Nov: Hort Innovation AGM, Sydney, NSW

4 Dec: Fruit fly roadshow, Tatura, Vic

For a complete list of events and important diary dates of interest to the apple and pear industry visit the **APAL website** or **submit an event**.

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