

# **Horticulture Innovation Australia**

## **Final Report**

### **Driving citrus industry success through a coordinated market development program - Stage 2**

Andrew Harty  
Citrus Australia Limited

Project Number: CT13022

## CT13022

This project has been funded by Horticulture Innovation Australia Limited using funds from the Australian Government and the following sources:

Citrus Australia Limited

Citrus (R&D Levy)

Horticulture Innovation Australia Limited (Hort Innovation) makes no representations and expressly disclaims all warranties (to the extent permitted by law) about the accuracy, completeness, or currency of information in *Driving citrus industry success through a coordinated market development program - Stage 2*.

Reliance on any information provided by Hort Innovation is entirely at your own risk. Hort Innovation is not responsible for, and will not be liable for, any loss, damage, claim, expense, cost (including legal costs) or other liability arising in any way (including from Hort Innovation or any other person's negligence or otherwise) from your use or non-use of *Driving citrus industry success through a coordinated market development program - Stage 2*, or from reliance on information contained in the material or that Hort Innovation provides to you by any other means.

ISBN 0 7341 3784 2

Published and distributed by:

Horticulture Innovation Australia Limited

Level 8, 1 Chifley Square

Sydney NSW 2000

Tel: (02) 8295 2300

Fax: (02) 8295 2399

© Copyright 2016

# Contents

Summary .....	3
Keywords.....	4
Introduction .....	5
Methodology .....	7
Project Highlights .....	14
Outputs .....	30
Outcomes .....	34
Evaluation and Discussion .....	35
Recommendations.....	39
Intellectual Property/Commercialisation .....	40

## Summary

The Australian citrus industry has moved into a buoyant period in the past 3 years, as new market opportunities and favourable currency rates have combined to boost the export sector. The role of the citrus market development team supported by this project has been to provide structures and processes which have allowed the industry to capitalise on these opportunities.

This project has resourced a full-time Market Development Manager and a part-time Industry Development Officer for South Australia through a voluntary contribution. The Market Development Manager had oversight of a small high-performing team who managed projects dedicated to market access, market intelligence and quality improvement and also had input into biosecurity, varietal development and capacity-building programs. This team also jointly managed the industry's agrichemical residue monitoring program together with the Australian Government Department of Agriculture and Water Resources. The Market Development Manager and the market development team were able to strengthen industry, government and researcher networks, and the communication and consultation framework to increase industry adoption of R&D outcomes.

Highlights of this project include:

- development of a high performing and dynamic market development team
- assisting to grow China exports from 3,500 tonnes in 2012 to 28,900 tonnes in 2015
- creating an agrichemical management framework
- enhancing the agrichemical residue monitoring program and resolving agrichemical issues in Japan
- coordinating export marketing including export promotion, inbound and outbound trade missions and exporter groups
- strengthening industry, government and researcher networks
- effective communication through regional visits, publications and conferences.

Recommendations for future work include reviewing the position description for the Market Development Manager to take a lead role in:

- developing and implementing a risk mitigation plan for citrus exports
- developing R&D solutions to key market access and development challenges
- managing the agrichemical framework
- supporting strong biosecurity programs
- developing stronger IDO and industry networks
- communication and extension.

## **Keywords**

Citrus industry; market development; market access; market intelligence; quality improvement; trade development; industry communications; industry consultation; exporter groups; advisory committees; project reference groups; research coordination; export promotions; agrichemicals; agrichemical residue monitoring; biosecurity; capacity building.

# Introduction

This project built on the activities of the initial citrus market development project CT09055, and operated during the period 1 July 2013 to 31 December 2015.

The Australian Citrus Strategic R&D Plan 210-2017 (Horticulture Australia Ltd, Citrus Australia Ltd 2011) identified four Objectives & Key Strategy Areas.

Objective 1: Develop and Maintain Market Opportunities

Objective 2: Increase Product Value

Objective 3: Improve Efficiency and Sustainability

Objective 4: Provide a Supportive Operating Environment

While this project inevitably delivered (to some degree) upon all four objectives, it was specifically designed to address objectives 1 and 2.

The Australian citrus industry faces a multitude of opportunities and challenges. Of critical importance are:

- ensuring adequate supply of fruit in light of the challenges associated with pest and disease pressures and ongoing review of agrichemicals
- ensuring adequate supply of fruit that meets consumer expectations in terms of quality, sweetness and cosmetics
- ensuring adequate supply of fruit that meets importing country regulatory requirements including phytosanitary, food safety, grading, packaging and labelling
- ensuring that citrus exporters have timely access to supply, market intelligence and trade data to inform marketing decisions
- ensuring that key markets remain open
- ensuring that services delivered along the supply chain (e.g. government certification, shipping, transport) are timely, efficient and effective.

It was determined that the industry required significant technical and marketing inputs if it were to fully capitalise on the opportunities that exist. Levy-paying stakeholders indicated that a coordinated and focused market development program was required to ensure synergies between projects and activities related to the citrus value-chain – in contrast to a large number of individual and unrelated projects.

The project funded a full-time Market Development Manager (Andrew Harty) to deliver its outcomes, and a 0.7 full-time equivalent (FTE) Industry Development Officer for the South Australian citrus through a voluntary contribution to deliver specific outcomes for that region.

The Market Development Manager managed a market development team consisting of a Market Access Manager (David Daniels, funded under CT12005), a Market Intelligence & Quality Manager (Nathan

Hancock, funded under CT12004, CT13037 and CT14010), and the South Australian IDO.

A steering committee was established to oversee the project. Committee members included the Hort Innovation Australia (Hort Innovation) industry development portfolio manager (Alison Anderson), the CEO of Citrus Australia (Judith Damiani) and a key industry stakeholder (Con Poulos, Chair of Citrus Australia South Australia Region.) The steering committee's role was to assess annual operating plans, review project progress, recommend changes as needed, and participate in project evaluation.

The project had 4 components including:

1. oversight of market development projects
2. industry linkages & consultation
3. R&D implementation
4. specific services.

The market development projects included market access (CT12005), quality improvement (CT12004), market intelligence (CT13037), development of a national plantings database (CT14010) and the citrus agrichemical residue monitoring program (CT11011). The Market Development Manager also had strong linkages with the citrus biosecurity project (CT13034) managed by Plant Health Australia.

Industry linkages and consultation included engagement with a strong network of industry advisory committees, regional advisory committees, reference groups and exporter groups. The Market Development Manager maintained linkages with regional citrus IDOs. Communications with industry via print and electronic media was a major component of the project.

R&D implementation included interaction with researchers undertaking citrus projects, either formally by participating in their project reference groups or informally. Workshops were organised to bring researchers and industry experts together to focus on priority areas, such as quality improvement and agrichemical management.

Specific services included:

- export market development, via trade missions and other trade development activities to complement the technical market access work undertaken in CT12005
- export market supply coordination, via seasonal teleconferences of exporter groups operating under ACCC exemptions
- coordination of the industry's agrichemicals framework
- supporting regional fruit fly management.

These activities are explained in more detail in this report. Project highlights are described, and areas that require improvement are discussed. Finally, recommendations are given for the next stage of the citrus market development program.

# Methodology

## 1. Oversight of market development projects

The Citrus Australia market development team managed or was closely involved with (in the case of biosecurity) three existing projects including:

- quality standards
- market access
- agrichemical residue monitoring
- market information
- biosecurity.

These projects all aligned with the industry's R&D priorities, as described in Australian Citrus Strategic R&D Plan 2012-17. The market development project had oversight of this suite of projects, adding value by ensuring projects inter-meshed with each other and cohesion with related other citrus R&D projects; and that projects remained focused on practical outcomes for industry.

### CT12004: Australian Citrus Quality Standards Program - Stage 2

This project aimed to increase citrus consumption on the domestic market by ensuring that consumers always have a positive experience when eating Australian citrus. The key activity was completing a large-scale consumer sensory evaluation exercise, adopting a new set of quality standards based on trial data, and encouraging the entire value-chain to comply with these revised standards. While there was a dedicated quality manager (Nathan Hancock), the entire market development team was focused on driving a quality culture in our industry, either at a national or regional level. The Market Development Manager continued to direct this program, and provided linkages to other research projects which included a quality component.

### CT12005: Driving citrus exports through improved market access

The goal of this project was to gain, improve or retain market access protocols for Australian citrus into overseas markets. Monitoring tariff conditions and Free Trade Agreement negotiations was also part of the market access manager's role. The Market Development Manager worked closely with the Market Access Manager (David Daniels) to ensure that activities remained focused, relationships with government and industry were fostered, and that industry implementation of new protocols were successfully coordinated. The latter activity required input from citrus Industry Development Officers staff in all regions. The Market Development Manager also worked to ensure synergy between trade mission activities, market access research, and development of market access protocols.

A major trade development activity was the sub-project 'Citrus to China: 20,000 tonnes by 2020' we undertook with a grant from the Australian Trade Commission (Austrade). Activities undertaken in this market are described in detail in the Project Highlights section.



#### CT11011: Agrichemical residue monitoring program for Australian citrus exports

This project provided surety to exporters and importers that Australian citrus was compliant with agrichemical residue limits in Australia and overseas. The program worked particularly well for Japan exports in 2011 and 2012, and during this project it was expanded into other sensitive markets. The Market Development Manager liaised with exporters and National Residue Survey personnel, and provided trouble-shooting assistance where maximum residue level (MRL) breaches occurred. More detail is provided in the Project Highlights section.

#### CT13023: Delivering robust citrus market information for a more competitive industry

Knowledge is power and vital in informing marketing decisions. Keeping industry informed of short, medium and long-term supply volumes is essential. This project delivered plantings database updates, annual crop forecasts, weekly supply data, and shipping volume data. Analysis of these data to aid industry planning was a key aspect of the project. A dedicated Market Intelligence Manager (Nathan Hancock) drove the seasonal operation of this project, with the Market Development Manager overseeing its broad direction and communications with industry participants.

#### CT13034: Preparing the citrus industry for biosecurity threats

This project was managed by Plant Health Australia. With biosecurity being one of industry's top priorities, the market development team closely guided and monitored its activities at a national and regional level. The project aimed to prepare the industry against invasion by devastating pests and diseases by creating industry awareness, maintaining updated incursion plans, developing surveillance strategies and conducting simulation exercises. The Market Development Manager sat on the technical and steering committees of this project and ensured that biosecurity was always foremost in industry communications.

## **2. Industry linkages & consultation**

Advisory committees: export market, domestic market, varieties.

The goals of each committee were:

- to identify and monitor key issues which were affecting their sector
- to advise the board of Citrus Australia and the Industry Advisory Committee (IAC) of these issues
- to recommend possible actions relating to these issues.

These three committees were chaired by the Market Development Manager and supported by one other team member. The Export Market Committee was supported by David Daniels, the Domestic Market Committee by Nathan Hancock and the Varieties Committee by the SA IDO. Each committee met face-to-face twice annually, and conversed via teleconferences and email. The Hort Innovation (previously HAL) citrus Industry Services Manager was invited to all meetings and attended when available. Membership was reviewed during the course of the project and changes made, with the aim of introducing fresh views and expertise. Meeting minutes and action points were circulated to HAL's Industry Advisory Committee and Board of Citrus Australia.

Regional advisory committees (RACs): Queensland, Riverina, Sunraysia, Riverland, Western Australia.

The goal of the RACs was to inform the Board of Citrus Australia and the IAC of key issues affecting the citrus industry in each main growing region, and to propose potential solutions. This process assisted in identifying high priority R&D projects for the citrus industry. RACs in South Australia and Queensland were particularly effective, while those in the Riverina and Sunraysia were less so (as discussed later in the evaluation section). In Western Australia, close linkages are maintained with the WA Citrus Industry Improvement Group. Most of the RAC meetings in South Australia and Queensland were attended by one or more of the market development team, thereby providing linkage between the RACs, the board of Citrus Australia and the IAC.

Regional extension: Industry Development Officers/extension officers.

Each of the main citrus production regions was served during the project by an Industry Development Officer and/or extension officer, with the exception of Queensland, where industry has opted for technical services to be delivered via specific research projects (primarily fungicide evaluation). In the Riverina, the New South Wales Department of Primary Industries (NSW DPI) provided an extension officer at the start of the project (Andrew Creek), and the Riverina Biosecurity Committee. Hort Innovation/HAL funded a Riverina fruit fly project coordinator project, CT12010 (David Troidahl, subsequently Tammy Galvin). In Sunraysia, NSW DPI provided a citrus extension officer (Steven Falivene) and the Murray Valley Citrus Board employed an IDO (Mary Cannard) for part of the project duration. In Western Australia, Fruit West and the Western Australia Department of Food and Agriculture co-funded a citrus IDO through a Hort Innovation funded project CT11005 (Bronwyn Walsh). In South Australia, a voluntary citrus levy funded a part-time citrus IDO via a voluntary contribution within CT13022.

This project strengthened the network of industry development personnel. Specifically, it continued to employ a South Australian IDO, sat on the steering committee for the WA citrus IDO, coordinated extension and market information activities within Sunraysia and maintained activities with the two Riverina officers, especially in the area of fruit fly control. Following a structure revision by NSW DPI in 2013, Andrew Creek's position was made redundant, but the Market Development Manager worked closely with local Riverina industry groups, NSW DPI and HAL to reconstitute the role. Subsequently, a new Riverina IDO role was established as a partnership between industry and government. The Market Development Manager was appointed to the steering committee of this new project, with Andrew Creek again being employed in the Riverina citrus IDO role.

The South Australia IDO was funded directly from this project, with a time allocation of 0.7 FTE. The South Australian regional advisory committee (CASAR) contributed funds directly to Citrus Australia via a matched voluntary contribution to this project to support this resource in their region. The key roles designated to the SA IDO were:

- supporting the newly formed CASAR
- facilitating Young Grower groups based around the Waikerie and Loxton districts
- organising regional forums of Citrus Australia to inform and consult with industry on local and national issues

- liaising with packers and exporters on seasonal issues
- chairing the regional crop estimates committee
- assisting with collating the tri-state crop estimates
- supporting the national varieties committee
- assisting with organisation of national forums and conferences.

At the start of each season, regional forums were organised in each of the 5 main production areas and presentations were provided by the market development team. These forums were valuable events for disseminating key messages to the regions, and for consulting our grower base on their specific regional issues.

#### Reference groups: agrichemicals; postharvest disinfestation; pests & diseases.

Where detailed technical consultation was required with industry, we maintained reference groups on specific topics.

Technical advice on agrichemical availability and usage was provided by an agrichemical reference group. This group provided feedback on agrichemical priorities as old products were withdrawn, novel products were identified, and new pest control needs arose. The group undertook a second citrus industry strategic agrichemical review process (SARP) in 2013.

The postharvest disinfestation reference group, initiated in 2012 and co-chaired by the Market Development Manager, continued to harness international research synergies with Californian researchers working on Fuller's rose weevil (one of our main phytosanitary obstacles for market access) and initiated a research collaboration with postharvest disinfestation researchers in New Zealand (which developed into CT13010).

#### Communications: Australian Citrus news, citrus e-news, season updates, detailed reports, forums and conferences.

The market development team (Andrew Harty, Nathan Hancock & David Daniels) sat on the editorial committee of Australian Citrus News, and the Market Development Manager in particular played a major role in selecting and contributing content and themes for each bi-monthly (subsequently quarterly) edition of the industry magazine. The team continued to use ACN and fortnightly Citrus Australia e-newsletters to inform industry of our activities and of key issues and events.

The popular monthly Season Update e-newsletter was continued, with the Market Development Manager providing technical editing.

Detailed reports were provided by team members on specific activities such as trade missions, market access, conferences and end-of-season summaries (as listed in the Outputs section).

A specific goal of this project was to expand and update our electronic databases of industry stakeholders to ensure maximum communication coverage, and this was achieved primarily by the market intelligence manager with assistance from the Citrus Australia administration officer. We have a high level of confidence that every citrus levy payer with an email address is receiving our electronic

communications, and also that we have comprehensive databases of our packing and exporting businesses.

#### National events: market outlook forum, national issue forums, technical forum

The market development team was responsible for organising and presenting at the market outlook forum in March 2014. The two-day event targeted the packing, processing and marketing sectors of the industry, including the increasing number of growing operations that are vertically integrated. This successful format will be repeated in March 2016.

The team also played a major role in arranging a new national event to replace the traditional industry annual conference. The first national issues forum in November 2013 was designed to be far more interactive than a conference program, with the goal of achieving in-depth analysis of the industry's key issues. This format proved to be very productive and popular with delegates, and was repeated in November 2015 with equal success.

Another first during this project was staging a technical forum and field-days event in March 2015. This format was designed to showcase the R&D efforts of the industry, by way of formal presentations, detailed workshops and several concurrent field demonstrations. A seminar dedicated to citrus postharvest technology was held concurrently and proved popular with the packing sector. The overall event was a great success, with over 300 delegates attending the two days of activities. The event will be repeated every second year, with the next event in March 2017.

### **3. R&D implementation**

#### Research reference group

Research project evaluation was conducted by a research reference group consisting of a HAL representative, a lead agency representative, two independent technical experts and the Market Development Manager. This group assisted in ranking project proposals for their scientific rigour, industry relevance and achievability, prior to funding determinations being made by the IAC.

#### Research program development

The Market Development Manager coordinated two workshops designed to bring together researchers and industry technical experts to develop cohesive, industry-focused R&D programs.

In September 2013, the agrichemicals reference group discussed the concept of an ultra-low agrichemical residue strategy for the citrus industry. This led to a scoping project (CT14001) which has recommended a research and extension program to achieve the stated goal. This program awaits funding support.

In April 2014, the Market Development Manager and Quality Manager (Nathan Hancock) coordinated a Sweeter Citrus workshop attended by 30 industry specialists, researchers and HAL, with the goal of formulating a research program to improve the eating quality of Australian citrus. This led to a HAL tender process for a Sweeter Citrus project. Unfortunately this project has been placed on the back-burner awaiting funding support.

The Market Development Manager has maintained an international postharvest disinfestation research group, with participants from several agencies in California, New Zealand, and 5 agencies within Australia. The group's biannual teleconferences have lasted several hours and covered some valuable detail in this field. Researchers have subsequently exchanged results, and incorporated new directions

in their trial work.

#### **4. Specific services**

##### Export market development

The Market Development Manager worked with industry and government agencies to add-value to trade missions in developing markets. A strong citrus presence was coordinated at the China Fruit and Vegetable Fairs (FVF) in 2013, 2014 and 2015 and an orange promotion program was developed and carried out in China, Japan and the Philippines in 2014. The promotions program was continued in 2015, with the Victorian government trade development team taking the lead role, and Citrus Australia providing support and advice. The key focus of the Market Development Manager was to support promotion activities by highlighting the industry's R&D efforts and product attributes (quality & safety).

More details on our team's market development activities in China are described in the Project Highlights section.

##### Export market supply coordination

A Japan exporter group, established by the Market Development Manager in 2012, was continued under an Australian Competition and Consumer Commission (ACCC) exporter agreement exemption in the 2013, 2014 and 2015 seasons. The market development team coordinated regular teleconferences during the navel orange export season, and collated weekly shipping data. More details are provided in the Project Highlights section.

A request from Queensland exporters to extend their export market coordination was followed up, with the Market Development Manager chairing group teleconferences in 2013 and 2014, also under ACCC exemption. Following a white-board exercise led by the Market Development Manager at the February 2015 regional forum in Gayndah, a dedicated Queensland Citrus Exporter Group was established, with resourcing from the Queensland government. The Market Development Manager co-chaired this group, which has investigated many other aspects other than pricing, including quality standards, terms of trade and USA market investigation.

##### Agrichemicals

Through a reference group and a HAL-contracted consultancy (Kevin Bodnaruk), the citrus Strategic Agrichemical Review Process (SARP) was updated in September 2013. The Market Development Manager provided a conduit between Hort Innovation/HAL and the Australian Pesticides and Veterinary Medicines Authority (APVMA) for new product registrations & permits and for agrichemical residue monitoring and establishment of new MRLs. The Market Development Manager also provided linkage to other research activities and projects such as the Queensland fungicide evaluation project (CT13020) and the MRL guidance project (CT14003). A new industry concept, an ultra-low agrichemical residue program, was initiated and progressed under the guidance of the Market Development Manager.

This area has become a key part of the market development role, and more details are provided in the Project Highlights section.

### Fruit fly management

The Market Development Manager continued to sit on the executive of Riverina Biosecurity Incorporated and helped drive the fruit fly campaign in that region. Attempts were made to form linkages with the Sunraysia fruit fly campaign, particularly in the area of international market access, but have yet to prove successful. Strong support was given during formation of the SITPlus program, with the Market Development Manager arranging a tour of the citrus regions in 2014 with Program Director, Dan Ryan to inform industry of this initiative.

# Project Highlights

## 1. Boosting China trade development

The most dramatic development in the Australian citrus industry in the past 3 years has been the opening of the export trade into China.

Although small volumes had been sporadically shipped into China since market access was granted in 2005, compliance with the quarantine protocol had proven too difficult for most growers and packers. The application of R&D results from 2012 onwards by growers and packers (mostly around control of the quarantine pest Fuller's rose weevil) opened the door for exponential growth in trade, with China becoming the industry's most valuable export market in the 2015 season.

The market development team has played a valuable support role in developing this trade. We have worked in 5 main areas:

- creating industry awareness of the China market potential
- assisting industry with protocol compliance
- coordinating inward and outward bound China trade missions
- promoting citrus industry R&D efforts and reputation at trade fairs and through seasonal programs
- forming high-level relationships with Chinese regulators and market associations with a view to ensuring that the trade is maintained and ultimately improved.

Our major trade development activity was the sub-project 'Citrus to China: 20,000 tonnes by 2020' which we undertook with a grant from Austrade (CT13038). This grant was matched by levies from orange growers administered by HAL. The goal of the project was to educate and train the citrus industry on the China market potential, challenges, regulations and cultural differences.

Working together with China specialist David Thomas from Think Global, we presented China marketing sessions at two major industry forums and followed these up with exporter training workshops for businesses looking to enter the China market for the first time.

A successful high-level trade mission in November 2013 to four Chinese cities was attended by 24 industry delegates, many of whom then began trading citrus into China in the 2014 export season. This mission led to a reciprocal in-bound mission in June 2014 by the China Agricultural Wholesale Markets Association (CAWA), and a Memorandum of Understanding being signed between CAWA and Citrus Australia.

An innovative intern program was started with service provider Zookal, in which Chinese students studying in Australia were placed in export businesses. The interns and companies were pleased with the outcomes of this program, and we hope to continue it in future seasons.

To help promote and facilitate the trade with China, we produced a DVD, brochures and web pages. This material went viral in China, with many trade websites, bloggers and on-line sellers using aspects in their promotions. It is not unrealistic to claim that many millions of on-line viewers in China have now been exposed to the 'Sweet, Safe & Healthy' core message we embedded in all this material. This provides a strong example where activities under CT13022 can 'dove-tail' and obtain synergies with other activities.

All objectives were delivered successfully on time, and significant new trade volumes were generated in the 2014 season and subsequently in 2015. Most pleasingly, our target of 20,000 tonnes by 2020 was surpassed in the 2015 export season (five years ahead of schedule) when 29,000 tonnes were delivered to mainland China. This project has played a significant role in expediting that achievement.

Crucial relationship building with the Chinese supply-chain was undertaken by the team at many different levels. Our trade missions in 2013 and 2014 resulted in many valuable contacts in the import, wholesale and retail sectors in China. Subsequent visits we hosted in our regions have led to strong relationships with major Chinese trading companies. Through our trade-fair attendance in each year of this project and during side missions, we have formed working relationships with Chinese quarantine authorities (AQSIQ, CIQ and CIQA) which have placed us in good stead when on-arrival incidents occurred.

The orange promotion programs we helped coordinate in 2014 and in 2015 have provided another network of service providers in China, including PR and media consultants, importer and retailer collaborators, as well as Austrade and state government business development staff in China. Our linkages to the Australian embassy in Beijing are strong due to our excellent relationships formed with DFAT agricultural counsellors and Austrade commissioners. While promotions and marketing are not a focus of our activities under CT13022, our technical and commercial assistance have provided opportunities to expand our overseas networks.

China export trade will continue to drive much of the new development in the citrus industry, and should thus remain a key focus of the market development team.



*Citrus Australia coordinated a trade mission by the China Agricultural Wholesale Markets Association in June 2014*



## 2. Forming an agrichemicals management framework for the industry

Agrichemical use is essential to the citrus industry for management of pests, diseases and weeds, and regulation of key growth events. Agrichemicals are critical tools for growing high yields of visually appealing, export compliant citrus crops at production costs which provide international competitiveness. Postharvest agrichemicals play a vital role in ensuring the long shelf life and market freshness needed for the export trade.

The formation and chairing of an agrichemicals reference group by the Market Development Manager has been highly valuable. This group of around 16 researchers (entomologists, pathologists & physiologists, pest management consultants and agrichemical company technical representatives) has provided a sounding board for the numerous issues which continually arise including:

- APVMA and overseas country reviews of specific products
- new pest concerns
- assessing impacts of MRL changes.

A key role of this group has been the biennial Strategic Agrichemical Review Process (SARP) which seeks to proactively identify gaps in the industry's pest management tool box.

The agrichemicals reference group also provided valuable initial debate and subsequent feedback on the concept of embedding an ultra-low agrichemical residue program within the industry. The market advantages which would accrue from such a program would be invaluable to the industry, particularly as requirement of regulators and retailers in export markets tighten.

Engagement with agrichemical distributors has been a key role of the Market Development Manager, especially with regard to products which showed potential for quarantine pests. These included orchard, packing shed and fumigation products for Fuller's rose weevil, fruit flies, citrus gall wasp and light brown apple moth, all key quarantine species. He has worked closely with distributors of postharvest fungicides, specifically to gain usage approval on Japan consignments (see below).

Another key technical contact has been Kevin Bodnaruk from AKC Consulting – his encyclopedic knowledge of all things agrichemical has been invaluable, not only in producing 6-monthly MRL guides for citrus export markets, but also for providing guidance on product potential in research trials, and direction when seeking permits or registrations for new products.

The Market Development Manager has created important linkages with research projects involved in agrichemical evaluation for citrus pests. He has sat on the project reference group for the Queensland fungicide evaluation project (CT13020) for the past 6 years, which has been a very fruitful collaboration. More recently, he has chaired the reference group for the national citrus gall wasp project (CT15006) and had input into the red scale phenology project (CT15008).

The Market Development Manager has worked closely with Hort Innovation's agrichemicals portfolio manager Jodie Pedrana during the initiation and inaugural meeting of the Agvet Collaborative Forum. This Australian government-led initiative holds much promise for expediting and simplifying the agrichemical permitting and registration process. The Market Development Manager also attended a Department of Agriculture/APVMA workshop to debate agrichemical reforms. Again, these initiatives could significantly assist in providing more timely access to new agrichemicals as they become available.

Clearly, the agrichemical field will continue to hold huge significance for the Australian citrus industry,

and should remain a key focus of the market development team.

### 3. Establishing a citrus agrichemical residue monitoring program

The Australian citrus industry faced market closure in 2010 after a series of excess residues of imazalil (a postharvest fungicide) were detected in Japan. The leading exporters approached Citrus Australia to develop a solution to this threat, and the National Residue Survey (NRS) (a division of the then Australian Government Department of Agriculture) was requested to jointly formulate a program for citrus exports to Japan.

This program (CT11011) ran successfully in the 2011 season with 6 participants and 150 test samples.

Subsequently, the program was extended to other export markets and more participants, and by the 2015 export season had become the largest horticultural NRS program, with 27 participants and 415 test samples.

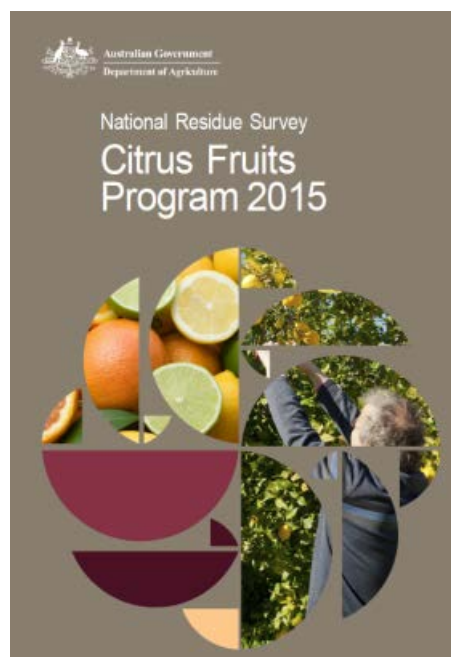
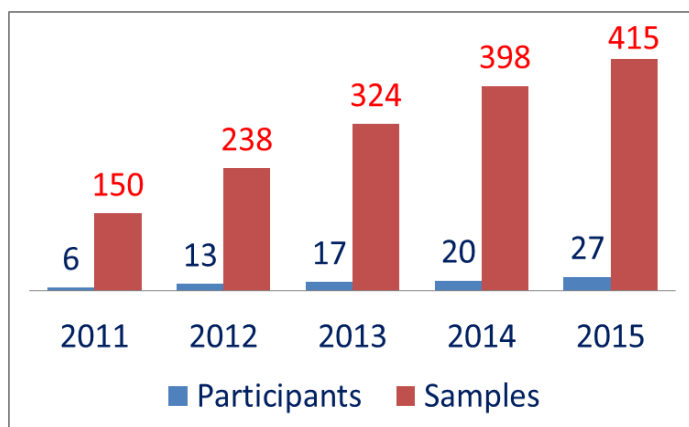
The market development team's role in this project has included:

- promoting the program to industry
- signing up participants each season
- estimating seasonal test numbers based on participant estimates
- negotiating annual service contracts with NRS program
- invoicing exporters for laboratory tests.

We also organise the annual revision of the program brochure, including translation into 6 Asian languages and distribution to participants. The brochure has been useful tool in promoting our industry's food safety reputation overseas with customers and regulators.

This program confirms the Australian citrus industry's commitment to food safety, and provides a template for other horticulture product groups to follow.

There is still a need to include more participants, particularly from Queensland, which is a major exporting region. Many current participants need to increase their sampling rate to make their testing regimes more robust. These improvements can be achieved on top of the strong program foundation created in the past 5 years.



*Participation in the citrus NRS program has increased steadily since 2011*

### 3. Resolving Japan agrichemical issues

Japan has for many years been the industry's most valuable export market, but also the most stringent with regard to food safety and agrichemical residue compliance. Since the adoption by Japan in 2006 of a 'positive' list of agrichemical maximum residue limits, exporters from many countries have experienced agrichemical residue breaches, requiring complete removal of product from the supply-chain within Japan, at great cost to the individual supplier. Should ongoing breaches occur, market closure for the entire national supply of that product can result.

The imazalil breaches which led to the formation of the NRS citrus residue monitoring program are described above. The market development team has also worked on two other cases, one of which prevented market closure, and the second which removed a bottleneck preventing use of new postharvest technology.

#### Diuron incident

Midway through the 2013 export season, two residue breaches of the herbicide diuron were detected on navel oranges exported from the Riverina to Japan. Our embassy in Tokyo was notified of the seriousness of these incidents, although the implications were not fully spelled out by the Japanese Ministry of Health, Labour & Welfare (MHLW) until an urgent meeting was called in Tokyo with the Australian agricultural counsellor, and the Market Development Manager. In MHLW's view, these breaches demonstrated a systemic failure within the Australian navel orange industry, and indicated it was closing the trade.

After a tense meeting and some very earnest discussion, we were relieved when MHLW agreed to keep campaign to eliminate the risk of diuron contamination on future consignments. We were also required to provide detailed reports on the sources of the detections, grower spray diaries, packer consignments and other proof of traceability. We were able to comply with these requests within weeks of our return, and thus maintained navel orange trade for the remainder of 2013 and into the 2014 season.

**IMPORTANT CITRUS INDUSTRY ADVICE**

## Diuron

From 28 November 2013, any agrichemicals with the active ingredient DIURON will not be permitted for use on citrus.

We strongly recommend that growers do not use any DIURON products on any citrus crop from this date forward.

The entire trade in Australian citrus to Japan was recently placed under threat due to excessive levels of DIURON on Australian exports.

The total suspension of the trade was averted only through a strong technical explanation and the fact that DIURON is being phased out.

The offending businesses have been placed on a 12-month, 100% "test and hold" arrangement before product may enter Japan. All other Australian citrus exports will be tested at a rate of 50% for the next 12 months.

The continued use of DIURON may lead to:

- loss of export markets
- regulatory action
- loss of reputation with authorities and buyers.

The Japanese food safety authorities have also expressed concern that the problem will persist with any replacement herbicides. We also urge all growers growing fruit for all export markets to skirt trees to avoid HPL breaches with any replacement herbicides.

The Australian citrus industry's point of difference in Asian markets is that it is a reliable supplier of safe, quality products. We cannot afford to be complacent about our reputation.

**Tree skirting is an essential practice for all export markets**

For more information contact:  
David Daniels, Citrus Australia  
E: david.daniels@citrusaustralia.com.au or M: 0402 270 554

Citrus Australia HAL

***Citrus Australia's industry education program  
kept the Japan orange trade open in 2013***

### Postharvest fungicide labelling

The second case involved overcoming labelling regulations for postharvest fungicides in the Japanese retail sector. All imported citrus is required in Japan to carry carton and store labels which state which postharvest fungicides have been applied. Regulation around this labelling is strictly monitored, and large fines are imposed if mis-labelling is detected.

Most citrus shipped into Japan pre-2015 listed 4 old chemicals on the label. Extensive research into new fungicides had confirmed they could effectively overcome fungal resistance that had been steadily increasing in Australian packing sheds. Although registered by the APVMA, no packers were prepared to apply these fungicides for fear of contravening Japan's labelling laws.

There was a real risk that the investment in new fungicide R&D would be wasted, and more critically, that resistant fungal strains would overcome the efficacy of the existing chemistry.

The Market Development Manager was only able to resolve this complex issue by engaging with all parties involved: agrichemical distributors, packers and exporters in Australia; Australian embassy staff in Japan; and Japanese regulators, importers and retailers. Unlike in Australia where terminology like "may contain traces of nuts" is considered acceptable, Japanese laws dictate that labelling must include only those chemicals that are *actually* used, not chemicals that *might* be used. In other words, if the entire Australian industry didn't transition to the new labelling, no one could. A number of citrus packing houses were reluctant to make the labeling changes. After some months, and a visit to Japan, an agreement was reached to label all Australian product in a uniform, approved manner, and our export sector was provided with the correct Japanese text. Although there was some pushback from the supply-chain in Australia and Japan, the vast majority of the trade accepted the new arrangement, and packers were able to use two new fungicides in the 2015 season.



*New postharvest fungicides can now be used on Australian oranges in Japan following Citrus Australia's resolution of labelling constraints*

## 5. Export market coordination

Marketing of Australian citrus is almost completely deregulated. The only exceptions are the regulated pricing mechanisms for orange exports to China and citrus exports to the USA under the Export Efficiency Powers. While many marketers prefer this freedom from regulation, many others perceive it as a weakness when compared to the successful market coordination employed by many of our competitors, notably South Africa, Chile and the United States. A compromise arrangement is to ask exporters to voluntarily share market data, and agree in-principle to pricing structures.

The market development team has worked with two exporter groups during this project to bring a degree of coordination into export markets. The first group has focused on orange exports to Japan, the second on mandarin exports from Queensland. In both cases, Citrus Australia was approached by industry to bring some order to the prices of these export products, and in both cases we have obtained ACCC exporter group exemptions to allow sharing of export market pricing, volumes and other information on market conditions.

The process implemented has been relatively simple. For each group, the Market Development Manager has called for interested exporters (who may be growers, packers and/or export marketers) at the start of each season, applied for ACCC dispensation, and then convened teleconferences, starting pre-season and as needed throughout the season. A declaration was read at the start of each call to remind participants of the need to avoid anti-competitive discussion, especially discussions that may affect the domestic market. Market conditions were discussed, and recommended minimum prices for each grade and size of product agreed. Minutes were distributed promptly after each meeting, only to call participants.

This process has worked well for a number of reasons. Citrus Australia has been viewed as an unbiased party with no agenda other than overall betterment of the industry. Team members have managed the teleconferences efficiently. All participants have been required to make comment on each issue raised, thus avoiding domination of the discussion by some participants. Team members have maintained a high degree of confidentiality throughout the process, which has inspired the trust of the participants.

Exporters have confirmed that the greatest benefit of these groups has been that each company can benchmark the opening price range at the start of each season. In a period where currency fluctuation has been significant, this benchmarking has resulted in far more price stability. Despite only being voluntary mechanisms, these exporter groups have materially assisted in achieving higher farm-gate returns for citrus growers, and must rank as one of the highest successes of this project. It is important that they continue.



*Citrus Australia's voluntary exporter groups have helped stabilise farm gate returns*



## 6. Improving industry consultation & communication

A great strength of this project has been the extensive network of advisory committees, regional advisory committees and reference groups in which the market development team has become closely engaged. These groupings of industry leaders have been our sounding boards for all our project activities – advising future direction, providing feedback on progress, and truly buying into the whole process of industry development. It is difficult to put a value on this level of engagement and it is essential that these leadership groups are maintained and regularly refreshed by the addition of new participants.

A key aspect in our industry communications has been the updating and constant maintenance of an industry database. The whole team, but especially the Market Intelligence Manager, has worked hard to build a comprehensive and up-to-date database which allows us to target our electronic communications to any sector or region of the industry. This is a critical asset which needs to be constantly maintained.

Our annual regional forums have also proven productive, more so in some regions than in others. The most successful have been those where productive debate on regional priorities has taken place and action has ensued. A good example is the export market development workshop held in Gayndah QLD in February 2015, where a session of white-boarding of ideas eventuated in the formation of the Queensland Citrus Export Group. This group has developed a charter to investigate new markets, support export market promotions, establish quality standards and terms of trade, and discuss market conditions and pricing (under ACCC exporter group exemption).

Our industry communication mechanisms have also improved significantly during this project. The market development team played a key role in setting the theme and content of each edition of Australian Citrus News, taking into account relevant issues coming from industry. Citrus e-News has been bolstered, with each team member contributing relevant items each fortnight. The punctuality of delivery of Season Update was improved, but we feel there is room to improve the format of this publication.

Overall, the level of engagement with industry has constantly improved with each stage of this project. Relationships have been built based on trust and confidence gained through a high level of discretion and integrity.



*Productive industry consultation was a highlight in some regions*



## 7. Organising effective national events for the industry

During this project, there has been a considerable thought dedicated to formulating the most effective formats for major industry events. Up until 2012, the accepted practice was to hold an annual industry conference, as had been done for several decades. Falling attendance, and general concern at the lack of relevance of this event format to major businesses in the industry, led the market development team and CEO to consider a change.

The National Issue Forum in November 2013 was our first trial in improving industry engagement. The plan was to target the leaders in the industry to attend, arrange a program which debated the key issues affecting profitability in the industry and make the proceedings very interactive, so that every delegate could add their input and value. The event was well attended, and the new format was praised by the delegates as a vast improvement in which they felt far more engaged. On the basis of this first success, a second National Issues Forum was held in November 2015, and met with equal industry approval.

Another initiative was upgrading our previous one-day export forums into a 2-day market outlook forum, covering all three market sectors of the industry – fresh fruit exports, domestic fresh fruit, and the juice sector. The first event was held in March 2014, and again an attempt was made to lift the level of audience engagement by including several panel sessions. Networking occasions were also much appreciated by the delegates. This format will be repeated in March 2016, and again in 2018.

A third new national event developed by the market development team was the Technical Forum & Field Day held in March 2015. This two-day event was designed to showcase the R&D being conducted in the industry, with the format including formal presentations within themed sessions, interactive smaller workshops on specific topics, and several concurrent field visits & demonstrations. A dedicated postharvest technology seminar was embedded within the program. Over 300 delegates attended, and rated the event a great success, with a recommendation that it be repeated in 2017. The networking opportunities were again much appreciated, not only for growers and packers but also for researchers. Several research side meetings were arranged to take advantage of all key players being in one venue.

These new event initiatives have paid off, and will now be locked into a regular biennial citrus industry calendar.



*The Technical Forum & Field Day was a highly successful new event*

## 8. Driving a quality culture in the industry

During the first six months of this project, the Market Development Manager and Quality Manager completed a large consumer sensory evaluation exercise to provide a scientific basis to the Australian Citrus Quality Standards. The taste panels were conducted in Perth and Melbourne, and included six navel orange taste panels with 720 test subjects tasting 2,160 fruit samples, and four Afourer mandarin taste panels with 480 test subjects tasting 1,440 fruit samples, across a good spread of age, ethnicity, gender and income demographics.

This exercise, the largest ever undertaken in Australia on citrus, gave us the confidence to adopt the BrimA method of expressing fruit maturity, and to set consumer acceptance thresholds based on this method. These new Australian Citrus Standards for oranges and mandarins (which adopt BrimA as the predictor of citrus likability) are now widely adopted by the entire supply-chain.

This milestone achievement was the culmination of 5 years of quality development by the market development team, its domestic market advisory committee and key collaborators in the supply-chain.

The annual 'report card' published by the Quality Manager for each of the past 4 years shows that growers, packers and marketers are employing practices to reduce the delivery of inferior citrus fruit to market, and are seriously committed to adopting a quality culture.

This will undoubtedly improve citrus sales domestically, and in overseas markets, it will enhance our reputation for superior tasting citrus.

During this project, the Market Development Manager and Quality Manager also collaborated on the vexing issue of granulation (or dryness) in Imperial mandarins. Again, a sensory evaluation exercise was undertaken, and based on this scientific analysis of consumer preference, we were able to set acceptance thresholds for granulation in Imperial mandarins.

The next step is to introduce a visual assessment chart, which will provide an objective means of assessing granulation at any stage in the supply-chain.

It is critical that this work is continued and expanded. The Sweeter Citrus workshop, coordinated by the Market Development Manager and Quality Manager in April 2014, has provided a blueprint for future research in this area.

The 5 objectives developed were:

- developing and evaluating non-destructive testing equipment for accurately assessing Brix, acidity and granulation in Imperial mandarins
- understanding variation in fruit maturity, within the tree and orchard, and between orchards within a district
- developing on-farm cultural practices to improve fruit quality, in particular, reduced deficit irrigation monitored by remote sensing of tree stress
- protecting Australia's taste advantage in export markets to ensure that Australian growers and marketers can continue to demand high prices for fruit through gaining a better understanding of consumer requirements in export markets.

Some of these objectives will be tackled in Stage 3 of the Australian Citrus Quality Standards project, but others still need funding support.



*Extensive consumer taste panel research led to new quality standards for Australian citrus*

## 9. Improving delivery of market intelligence to industry

Informed production and marketing decisions based on reliable market intelligence will improve market return and hence farm-gate returns in the short, medium and long term. At the start of Stage 1 of this project in 2010, the systems for gathering reliable industry data were rudimentary and uncoordinated.

During this project, significant gains have been made in the quality of market intelligence provided to industry. The Market Information Manager has engaged with value-chain participants to capture and disseminate timely information on supply, market conditions and shipping movements. The Market Development Manager has assisted in developing improved processes for collecting production, delivery and plantings data.

It is critical that Australian citrus exporters have access to real-time information on citrus shipments and market conditions to prevent situations of over-supply in overseas markets. The Market Information Manager cultivated strong relationships and earned the confidence of the export and packing sectors to collect and disseminate information on citrus shipments. Using the InfoCitrus platform, he continued to aggregate shipping data and provide weekly delivery reports throughout the harvest season.

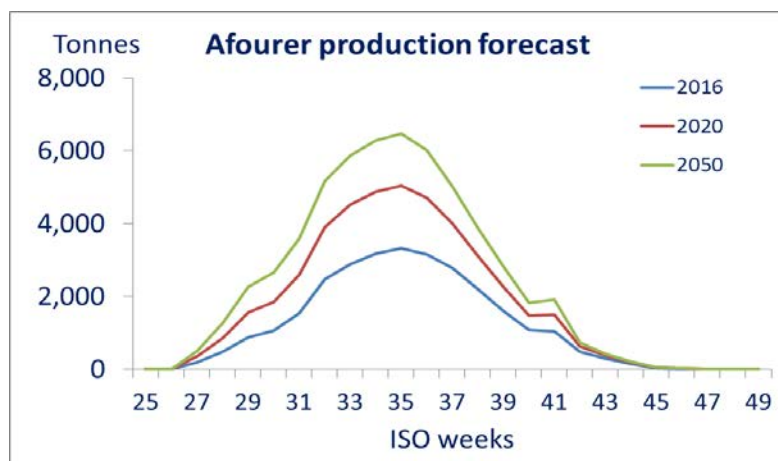
The Market Information Manager and Market Development Manager improved the methodology for capturing information to provide accurate crop forecasts for each major crop and production region. Our system now involves 5 steps including:

- measuring and analysing fruit frame counts and fruit diameters on sentinel trees of each main variety in each main region
- comparing data to previous season's crop volumes
- tree census production forecasts
- packing shed bin tip reconciliations at the end of each season
- crop estimate committees consisting of packers in each region.

This robust methodology is delivering far more meaningful crop forecasts.

Gathering information on national citrus plantings was also poorly coordinated in the past. During this project, the market development team made significant progress in gathering this information through a custom-designed online data capture system. The efficiencies gained by transitioning from paper-based to electronic data capture have made an annual update of the national tree census feasible.

For the first time, tree census data could be coupled with tree yield models to provide a citrus production outlook. The estimated volumes of each major product category in 2020 and 2025 have given substance to industry trends that were suspected but not quantified. This information will allow for much more robust decision making in every sector of the supply chain.



*The citrus production outlook will inform the citrus supply chain of upcoming challenges and opportunities*

## 10. Establishing an effective market development team

The Market Development Manager role was initiated by Citrus Australia in 2010, following an industry development needs analysis which recommended its creation. On his appointment, the Market Development Manager was given a broad set of goals aligned to industry priorities, but was allowed to formulate specific objectives to achieve the desired outcome of a more efficient, modern and viable citrus industry.

After considerable consultation with industry over two years, it became apparent that an effective, qualified team would be needed to make the market development program succeed. Four key areas were identified:

1. Market access
2. Biosecurity
3. Quality improvement
4. Market intelligence.

The Market Development Manager identified suitable candidates to fill the quality & market intelligence role (Nathan Hancock) through projects CT12004 and CT13037, and the market access role (David Daniels) through CT12005. The Biosecurity Manager appointment (Stuart Pettigrew) was managed by Plant Health Australia through CT13034.

The market development team has functioned well as a unit, under the experienced guidance of Citrus Australia CEO Judith Damiani and the excellent support staff at Citrus Australia (Simone Jones, Susie Mills and Kellie Nulty). Features of the team which have led to its success include:

- a strong focus on finding practical solutions to industry problems
- a firm commitment to accountability and good governance
- an attitude to tackle any issue that was seen to impact (positively or negatively) on the industry's prosperity
- a diverse skills set amongst the different team members and a willingness to support each other
- an ability to communicate well with industry stakeholders at all levels
- a high degree of integrity and discretion, essential for operating within a highly competitive industry.

This team has now become a valuable asset to the industry, setting the foundation for future market development in what will undoubtedly be an exciting period for the industry. Despite Andrew Harty's recent resignation, it is important to maintain the values of the current team and to pursue its goals.

# Outputs

## **Market development team reports to the Board of Citrus Australia**

*Detailing the activities of the market development team on a bi-monthly basis*

July-December 2013: 3 reports

January-December 2014: 6 reports

January-December 2015: 6 reports

## **Advisory committee minutes – export market, domestic market and variety committees**

*Capturing the debate and decisions of these key industry consultation groups, chaired and coordinated by the market development team*

Export market: 2013 - 1 meeting; 2014 - 2 meetings; 2015 - 2 meetings

Domestic market: 2013 - 1 meeting; 2014 - 3 meetings; 2015 - 2 meetings

Variety: 2013 - 1 meeting; 2014 - 1 meeting; 2015 - 2 meeting

## **Australian Citrus News**

*The premier industry communications vehicle, with editorial, content and photography input from the market development team*

Editions produced: 2013 - 3; 2014 – 4; 2015 – 4

## **Citrus e-News**

*Market development team contributions in each edition, highlighting our project activities and informing industry of critical issues and events*

Fortnightly editions since 2013

## **Season Update**

*A monthly production guide for citrus growers, collated and edited by the MDM for electronic distribution*

Editions produced: 2013 – 6; 2014 – 12; 2015 – 12

## **NRS agrichemical residue monitoring program brochures**

*Providing exporters and importers details of the citrus residue testing program*

Versions produced: 2013, 2014 and 2015, each translated into Chinese, Japanese, Malaysian, Indonesian, Korean & Thai

## **Export trade brochures**

*Distributed at trade fairs, on trade missions and electronically to multiple email contacts; describing our product attributes, production processes and exporter contact details*

2013 & 2014 versions, translated into Chinese, Japanese, Korean and Indonesian

## **Exporter group teleconference minutes**

*Teleconferences of the Japan orange exporter group and Queensland citrus exporter group, chaired by the MDM under ACCC exporter group exemptions*

Japan: 2013 – 2 teleconferences; 2014 – 4 teleconferences; 2015 – 5 teleconferences

Queensland: 2013 – 7 teleconferences; 2014 – 2 teleconferences; 5 teleconferences

## **Asian Century Business Engagement project report**

*Detailed reports to HAL and Austrade describing the activities, outputs and outcomes of this highly successful project*

'Citrus to China: 20,000 tonnes by 2020' final report

National event presentations: National Issues Forum November 2013; Market Outlook Forum March 2014

Australian Citrus News articles in 4 editions

## **Orange Promotions in Asia – 2014 Season Report**

*A final report for HAL detailing promotional activities organised in China, Japan and the Philippines*

## **Citrus Production Outlook 2015**

*A prediction of volume potential of each main citrus category in 2016, 2020 and 2025, based on the 2014 tree census*

Detailed report; Powerpoint presentation at the National Issue forum 2015



## **National events programs**

*Program content arranged and presentations delivered by the market development team*

National Issues Forum November 2013

Market Outlook Forum March 2014

Technical Forum & Field Days March 2015

National Issues Forum November 2015

Citrus Australia-Department of Agriculture end-of-season citrus exporter meetings December 2013, 2014 & 2015

China exporter workshops February 2014: Melbourne; Mildura

## **Regional forum programs**

*Content arranged by the market development team; presentations and field days delivered*

2014 & 2015: forums in Queensland, Riverina, Sunraysia, Riverland and WA

## **Industry R&D workshop programs**

*Designed to formulate R&D programs on priority issues, with content co-arranged and presented by the MDM*

Citrus Strategic Agrichemical Review Process September 2013

Zero Residue Citrus workshop September 2013

Sweeter Citrus workshop April 2014

## **International presentations**

HAL IDO forum presentation August 2014: 'Case study: Australian citrus market development'

Asiafruit Market Insight presentation May 2014: 'Australian citrus trade into China'

ABARES conference presentation March 2015 : 'Citrus to China: opportunities & challenges'

Austrade 'Taste Japan' presentation April 2015: 'Australian citrus: high quality fruit for Japan'

Japan importer presentation April 2015: 'New postharvest fungicides for citrus protection'

## **Industry reports**

March 2013: 'Navel oranges – where to from here?'

October 2013: 'Citrus Australia Japan study mission'

September 2014: '10 good reasons to invest more into citrus R&D'

January 2015: 'Queensland citrus industry status report'

March 2015: 'Removing protocol obstacles for citrus exported to China'

May 2015: 'Report on China market access mission May 2015'

December 2015: 'Citrus export risk mitigation – concept document'

## Outcomes

The Australian citrus industry is in a buoyant phase, with expanding export tonnages and value being the main drivers of increased farm-gate returns. Significant investment throughout the supply-chain provides evidence of this confident mood.

World economics are undoubtedly a key reason for this upturn. Falling commodity prices have improved currency exchange rates for exporters and decreased on-farm fuel costs for growers, while rising middle class wealth in Asia has presented vast new export market opportunities.

The role of the market development team in this upswing in industry's fortunes has been to provide the support network needed to capitalise on the favourable economic and market environment.

We can summarise the outcomes of our efforts over the past 6 years as follows:

1. A market development team that is highly focused on industry issues, and is equipped with the skills to tackle these priorities.
2. An industry that is highly committed to developing and adopting new technology to progress its future viability, and has voted to increase its R&D investment.
3. An export sector that is better equipped to capitalise on emerging export markets that will be the new lifeblood of the industry.
4. An industry that is better informed and consulted, through national and regional forums, workshops and field days; hard copy and electronic media; and through group and individual communication.
5. An industry that has greatly improved market intelligence, allowing for deeper analysis of information and trends, in turn leading to better immediate and long-term decision making.
6. An industry that has acknowledged the importance of eating quality as a key driver of fruit sales, and is adopting the technology to improve its offer to consumers locally and internationally.
7. An industry that is better equipped to manage the threat of biosecurity incursions.
8. A citrus research community that is better coordinated and connected, with a clearer vision of where the industry is heading and has adjusted its resourcing accordingly.
9. A network of agrichemical experts and a suite of projects and programs which will guide industry through the challenges ahead in this arena.

# Evaluation and Discussion

What has worked well in this project, and what areas not so well? What improvements could be made to benefit future citrus market development?

## Formal evaluation

Formal evaluation of the project was undertaken by Hort Innovation's industry development portfolio manager Alison Anderson in July 2015. This included an evaluation discussion with the project steering committee, an electronic survey of industry stakeholders (with 54 responses), and telephone surveys of 5 informed industry stakeholders.

Key findings were:

1. Investment in market development and market access is viewed as being strategically important for the Australian citrus industry. Investment in these areas should continue.
2. The citrus market development team, employed through Citrus Australia, is considered to be knowledgeable and delivering high-value projects well.
3. The project provides oversight of all market development and market access issues; coordinating and prioritising work and managing any issues.
4. Communication channels such as Australian Citrus News and Citrus e-News are well supported as communication channels for the project. Opportunities for learning through events such as regional forums and the Citrus Technical Forum are also well regarded. There is also scope to use newer communication channels such as 'You Tube' videos.
5. Industry leadership groups (such as the advisory committees for export, domestic market and varieties and regional advisory committees) have provided valuable input to the direction of the project while also being a conduit for information exchange between the citrus market development program to other industry stakeholders.
6. The project provides the overall strategic input for agrichemical work in the citrus industry.
7. The project provides vital links between the value-chain and researchers.
8. The SA IDO component of the project has delivered under expectation and Citrus Australia has taken action to rectify this situation (however due to the Hort Innovation transition period no new IDO has been recruited).
9. This review provides evidence that the project is achieving its intended outcomes; however there has been no formal collection of data through key evaluation questions and a monitoring and evaluation plan.
10. Some industry stakeholders have not linked project initiatives with the project; branding and telling the project story to industry requires additional attention.

Recommendations arising from this review were as follows:

1. The project has strong support, and market development should remain a focus for Hort Innovation in future investment of citrus R&D levies.
2. Consideration should be given to developing a shorter, catchier name for the project/ citrus market development program so as to increase recognition of the project amongst industry. This will better enable industry to associate project outputs with the investment. Branding and acknowledgement as per the Hort Innovation Publications Guide also needs to be followed to assist in the linkage of citrus levy investment with the project deliverables.
3. Program logic needs to be developed for any future project, providing a clear, cascading logic from the industry Strategic Investment Plan down. The program logic forms the high-level framework for the project plan and governs the monitoring and evaluation plan.
4. A monitoring and evaluation plan needs to be developed to clearly demonstrate project benefits and act as a mechanism for continuous improvement. Key evaluation questions need to cover project impact, effectiveness, appropriateness, efficiency and legacy.
5. Program logic must be developed for all citrus market development, market access and quality projects delivered by Citrus Australia so that linkages, roles and responsibilities are clearly defined.
6. The combination of market development and export market access into a single project should be considered. These would link to any quality/varieties project. The industry adoption and leadership initiatives may benefit from being a separate project. Focus areas could include: export market development initiatives; market access and protocols; coordination of all projects addressing market knowledge, quality and market access; provision of content to citrus communications; export and product quality leadership groups; facilitation of a community of practice for citrus industry development professionals; organisation of technical events such as the Citrus Technical Forum and annual events in each region; technical input to the citrus R&D program.
7. Development of a stakeholder engagement plan to maximise linkages, the two way flow of information and appropriate messaging for different groups. Specifically a community of practice should be considered for those providing advice to citrus growers (e.g. industry development personnel and consultants) to ensure messages are consistent and up to date with the Hort Innovation funded citrus R&D program.
8. Separation of any future SA Industry Development Officer (IDO) project from the market development project.
9. The project should provide technical input to citrus industry publications (e.g. themes) but is not responsible for any general editing.
10. A future project should include funds for an independent evaluation of the overall citrus market development program.

The market development team has taken careful consideration of these recommendations when developing the proposal for Stage 3 of this project.

## **Major event evaluation**

Survey evaluations were also undertaken of the Market Outlook Forum in 2014, the two National Issues Forums in 2013 and 2015, and the Technical Forum in 2015. Overall feedback was highly positive in each case, with delegates rating these events as valuable to industry and their individual businesses. The market development team has heeded comments provided on ways to improve these events, and topics to include in future events. By asking each respondent to rate each speaker and session, we have learned and adopted subsequent event programs.

On the basis of these responses, the market development team proposed that only one national event should be held annually, supported by more robust regional forums. This proposal has been adopted by Citrus Australia, and the major event program will now consist of a market outlook forum alternating every second year with a technical forum, both to be held in March.

## **Communication evaluations**

An electronic survey of the industry's suite of communications was also conducted independently by Currie Communications in 2015. The responses confirmed overall satisfaction with the traditional communication vehicles, Australian Citrus News and Season Update, and the introduction of the fortnightly Citrus e-News was favourably reviewed. Interestingly, social media (Facebook, Twitter etc) received a very poor response, perhaps reflecting the IT demographics within our industry.

## **Self-evaluation**

Areas of the project that have worked particularly well are described in the 10 items in the Project Highlights section.

Areas that have worked less well are:

### SA IDO

Citrus Australia has worked with the regional advisory committee to find replacement service providers to cover the main components of the IDO role, and the local industry is pleased with that arrangement.

### Advisory committees in some regions

Regional advisory committees in Queensland, South Australia and Western Australia have functioned well and have provided valuable structures for identifying the key issues in those regions. Unfortunately, in the Riverina and Sunraysia, regional committees have not performed well, for various reasons. Our team has managed this situation by communicating directly with major packers and growers in each of these regions, and will strengthen ties with the Riverina citrus IDO's project reference group.

### Expansion of quality standards

Quality parameters other than taste (such as external quality, fruit size and carton dimensions) are included in the citrus quality standards from most of our competitors (notably South Africa) and their absence in the Australian citrus industry remains a weakness. However, attempts by the market development team to develop wider quality standards have been resisted by major industry stakeholders, and have therefore not been pursued. Our team has worked in the past season with the Queensland Citrus Exporter Group in developing an initial set of external fruit quality standards for Murcott mandarins, and maybe this is the most practical approach, rather than aiming immediately for a

whole-of-industry program.

#### Regulated export pricing

Regulated minimum export pricing on selected markets has likewise been a contentious issue. The Market Development Manager participated in the Citrus to China and Citrus to USA committees administered by HAL since the start of Stage 1, a system that appeared to maximize farm gate returns. However, a review of the Export Efficiency Powers (EEP) by Hort Innovation's legal team in 2015 led to a radical change in the minimum export pricing procedure, with much unhappiness from the industry. In contrast, the voluntary export pricing groups administered by the market development team have provided market benchmarking at the start of the season, and managed to temper market fluctuations during the season. Expansion of these groups is a potential solution should the EEP regulations be rescinded.

#### Activity focus

There is frequent temptation in a broad-ranging project such as this to attempt to cover too many items. Every region has its special issues, as does every industry sector and market. Resources are always tight, and in a small team such as ours we have sometimes been pulled in many directions. The answer to this problem lies in stricter focus on those industry priorities which will deliver meaningful outcomes, and this is a recommendation for Stage 3 of the project.

## Recommendations

1. The 2009 IDNA recommendation to industry to invest in citrus market development has paid off, and this market development project should be continued to Stage 3.
2. Many changes have taken place in the industry since 2010, and the project has branched out in several directions to meet new challenges. The project directions and objectives need ongoing revision to ensure they are tightly focused on industry priorities – advisory networks and national and regional events provide ideal mechanisms to keep checking.
3. At the start of Stage 1 of this project in 2010, very few of the current sub-projects were envisaged, but the flexibility of the project structure and of the team allowed for new objectives to be promptly pursued. It is critical that future stages of the project have the ability to be equally nimble so that new issues can be responded to quickly.
4. The resignation of Andrew Harty from the market development team provides an opportunity for the skill-sets and roles of existing members and his replacement to be re-evaluated. It is also an opportunity for the team to review all its activities and re-focus on those that are most relevant to industry and capable of delivering outcomes.
5. Effective research coordination and focus will be essential to ensure that the industry's priorities are met, and new technology and solutions are delivered. The new recruit should take a lead role in developing R&D programs together with Hort Innovation and industry's direction. This role should be recognised and acknowledged through objectives and KPIs within Stage 3 of the project.
6. In particular, the market development team should have a strong focus on R&D which resolves market access issues, and this could be a joint responsibility of the market access manager and the new recruit.
7. As outlined throughout this report, the ability of the industry to effectively manage agrichemicals will be vital to its future success. The new recruit should ideally have skills and knowledge in this area, and should take over the management of the industry framework already established. Expanding the NRS residue monitoring program should be an objective.
8. Two new R&D programs which have been scoped during this project and now await funding support are the Ultra-low Residue Citrus and Sweeter Citrus programs. Both programs will deliver long-lasting market advantages to the industry by enhancing its reputation for quality and food safety and should be initiated as a matter of urgency.
9. The biosecurity threat level has increased since 2010, with HLB and its vector now very close to Australia's shores. Although Plant Health Australia will continue to manage Stage 2 of the citrus biosecurity project, it is critical that the market development team maintains close contact with the activities of this project. A team member should continue to sit on the project's industry reference group.
10. As the industry expands its export trade, the impact of potential trade closures will increase. A risk mitigation plan for the industry should be developed by the market development team, covering the three highest risk areas: excess agrichemical residues; biological contamination;



and quarantine protocol breaches. This plan should outline the processes and technology needed to mitigate these risks, and should include an industry consultation, education and training component. All players in the export sector need to be aware of these risks because experience has shown that the weakest link can halt trade for the entire industry.

11. A great strength of this project since its inception has been its network of consultation groups, some based on market issues and others on regional or national issues. This network should be maintained and strengthened in Stage 3, with group membership regularly reviewed and refreshed.
12. Communication with industry has been another success of the project to date, but there is always room for improvement. Every communication vehicle should be regularly reviewed for audience relevance and suitability. Of the current suite of industry publications, Season Update is the one most urgently needing refreshment.
13. Capacity building remains an objective in the industry's strategic R&D plan but has until very recently received scant attention. The industry's revival has resulted in an urgent need for additional skilled personnel. The Citrus Diploma course and the Horticulture Career Pathway developed through Sunraysia TAFE are models on which an industry training framework could be based.
14. The transition of Horticulture Australia to Horticulture Innovation Australia in 2014/15 proved challenging to the citrus market development team, as it did for the entire citrus research network. The team has worked cooperatively with the Hort Innovation staff to manage this situation. It is essential that robust, focused R&D contracting systems are put into place in 2016 so that the industry's investments into R&D and marketing are effectively and efficiently managed.
15. Citrus Australia's 2015 citrus production outlook predicts that by 2025 there will be sufficient additional production to allow a doubling of the 2015 export value to \$0.5 billion FOB. This goal should be adopted by the entire industry, and should direct the activities of future stages of this project.

## **Intellectual Property/Commercialisation**

No commercial IP generated.