

**Facilitating the communication and
development of the Citrus Industry in the
Murray Valley**

Hugh Flett
Murray Valley Citrus Board

Project Number: CT05004

CT05004

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Know-how for Horticulture™

Final Report
for
CT05004

Facilitating the communication and development of the
Citrus Industry in the Murray Valley

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Murray Valley Citrus Board



Know-how for Horticulture™



HAL Project – CT05004

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Project Statement:

To facilitate the communication and development of the Citrus Industry in the Murray Valley through co-ordination and allowing growers the opportunity to view and uptake best practice technology.

Funding Sources:

Murray Valley Citrus Board
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Media Summary

Successful communication and development continues.

The Murray Valley Citrus Board (MVCB) continued the communication and development of the Citrus Industry through its Industry Development Officer (IDO) position jointly funded with Horticulture Australia Ltd under the project title “Facilitating the communication and development of the Citrus Industry in the Murray Valley”.

Growers, packers/processors and researchers/agronomists all highly valued the information flow and opportunities for more co-ordinated Best Practice and market-driven approaches to industry development arising from the MVIDO Project. While quantitative data was difficult to define, qualitative information and the credibility of the Project/MVIDO role within the industry was certainly forthcoming. There were a range of economic, seasonal, market and broader industry issues impacting on the generic outcomes determined in the application for the 2005-2010 Project.

As there was no evaluation plan put into place at the commencement of the Project, there were no survey instruments or measurement mechanisms in place to progressively measure the effectiveness of the Project, although quite a deal of anecdotal information existed. The role of the Project in fostering industry development at a national level should also not be underestimated.

The Murray Valley Industry Development Officer (MVIDO) position was created by the MVCB in 1999 to co-ordinate the transfer of information from research and markets to industry and to assist in the identification of research and development opportunities and communicate these opportunities back to the research community for consideration.

Tony Filippi took over the MVIDO project from Peter Morrish in late 2005, however the position has been held by Mary Cannard since June 2007.

This jointly funded project worked to achieve International Best Practice in the Australian Citrus Industry, in particular the Murray Valley citrus growing region.

Outcomes included:

- The adoption of best practice technology for improved fruit size and packouts.
- A majority of Murray Valley citrus growers complying with OH&S requirements.
- Increased accuracy of crop forecasting results for the Murray Valley citrus growing region.
- Development of a national crop forecasting system with ACG and other citrus growing regions.
- The increased adoption of communication technology (computers & faxes): crop regulation; and best practice citrus production. This MVIDO assisted this through the co-ordination and planning of regional CITTgroup activities on a regular basis, reflecting industry priorities and anticipating seasonal requirements.
- The incorporation of the citrus growing manual by growers and managers

This project was driven by a steering committee comprising of growers, packers and representatives of research organizations to ensure the needs of the citrus industry

were being addressed and to maximize the opportunities for 2-way information exchange between growers and researchers.

The anecdotal information provided within evaluation discussions with stakeholders concerning outputs such as industry development, culture change and best practice on-farm developments, was very positive. The fact that focus groups/workshops and individual participants brought forward a range of issues during discussions and were willing to advance constructive comments on areas for inclusion in the 2010-2013 project funding proposal, could be seen as proof of on-going industry development and awareness of best practice issues (ie. a “positive culture” development).

The Murray Valley Citrus Board is determined to continue the positive outcomes and outputs through the employment of a Citrus Industry Development Officer.

Introduction

The Murray Valley Citrus Board (MVCB) is a Victorian grower funded statutory authority that provides services to 426 citrus growers in Victoria and New South Wales.

The position of Industry Development Officer (IDO) was created to co-ordinate the transfer of information from research and markets to industry, and to assist in the identification of research and development opportunities and communicate these opportunities back to the research community for consideration.

The aim of the project is to achieve international best practice in the Australian citrus industry, in particular the Murray Valley citrus growing region.

The IDO/CITTgroup co-ordinator facilitates best practice by assisting the transfer of information to growers using different communication methods ranging from grower information sessions and farm walks through to technical fact sheets, media and field days.

The Murray Valley Citrus Industry Development Officer provides timely dissemination of technical and market information to stakeholders to meet the requirements for:

- Export and domestic market access
- Fruit quality and size
- Production, harvest and variety
- Pest and disease management, and
- Water management

The Murray Valley Industry Development Officer (MVIDO) position was created in 1999 in response to citrus growers' need to access new technology and the results of Australian and International research as it becomes available.

The 2005-2008 MVIDO project (extended 2008/10) aimed to facilitate best practice citrus production and market access through the effective and efficient transfer of information between industry sectors at the regional level. This was undertaken utilising methods such as facilitation, co-ordination, communication, development and collaboration and networking. The project provided funding for three days of the IDO's time per week.

Project outputs will include specific workshops/training, dissemination of information in a range of formats appropriate to grower/packer requirements, attendance at various forums, conferences and networking opportunities, developmental work on some tools to assist growers in best practice production, information collection, collation and analysis and some investigative work.

It was anticipated that Project outcomes would include:

- On farm cultural practices driving the efficient and sustainable production of quality citrus that meets market demands.
- Up to date research results and market information applied by the industry at the regional level.

- By 2008, 85% of regional citrus growers have in place relevant quality management systems that meet market requirements.
- Accurate planting, crop forecasting and production data informs the local industry and provides input into the industry at a national level.
- Communication to growers and packers is timely, effective and in a format required by the industry players.
- All regional growers have access to up-to-date Occupational Health and Safety information and most are complying with OHS requirements. Pest information and pest monitoring is utilised by a majority of growers and this is reflected in improved fruit quality.

Quality Growing Management and Best Practice

This involved the monitoring, collation/packaging of research outcomes and other best practice information and transfer of the information to citrus producers in the Murray Valley. CITT groups, workshops, field walks and training sessions were the vehicles used to communicate this information to citrus producers.

Projects

Optimising citrus fruit size by regulating flower numbers and crop load

Duration: February 2003 to December 2005 (HAL project CT03031 with VC from MVCB)

Agency: CSIRO Plant Industry

A final report detailing outputs of the work was prepared and delivered to HAL in December 2005. Briefly the main findings were:

The project successfully isolated a range of citrus flowering genes and their expression was measured in dormant winter buds over two seasons to assess their suitability for a floral index test. Despite success in isolating the genes, expression levels in the various treatments were inconclusive, such that a gene-based floral index test is not feasible at the present time.

Future research to develop a citrus floral index should be based on measuring assimilate availability for developing buds. Possible approaches include:

- Determining stored carbohydrate (e.g. starch) levels directly, or
- Measuring genes, or other factors, regulated by stored carbohydrates.
- A significant potential spin-off benefit is that the genes identified in this project could, with further research, be a basis for developing DNA fingerprinting for different citrus varieties. Possible uses for DNA fingerprinting include:
 - Unequivocal identification of varieties to reduce the likelihood of illegally imported material being introduced into, and grown in, Australia.
 - Protection and identification of new scion and/or rootstock varieties developed in conventional breeding programs.
 - A further potential spin-off benefit is that the genes identified in this project could, with further research, be a basis for developing perfect molecular markers to improve seedling selection in conventional breeding.

Optimising the quality of citrus for Asian markets

Duration: August 2002 to August 2005

Agency: CSIRO Plant Industry

A final report detailing outputs of the work was prepared and delivered to MVCB in March 2006. Briefly the main findings were:

Moisture loss was positively correlated with the chilling injury index (the higher the moisture loss the higher the level of chilling injury), supporting the hypothesis that moisture loss and time are important determinants of the expression of chilling injury. Trials with CSIRO's Moisture Control Technology (MCT) with Navel oranges showed that fruit stored with, as opposed to without, the MCT liner lost 80-90% less moisture at outturn, were 35-40% firmer and had 42-86% less chilling injury. In the

export trial, fruit in the MCT liner also had 54% less albedo breakdown which was attributed to the fruit moisture retention properties imposed by the MCT liners. Low oxygen environments (less than 5%) for extended periods of time were found to be detrimental to fruit survival and were associated with increased incidences of chilling injury.

In both a domestic storage trial and an export trial, tangelos stored with, as opposed to without, the MCT liner lost significantly less moisture at out-turn, were significantly firmer and showed a lower incidence of physical rind injury. However, in both trials there was a higher incidence of scald in MCT lined cartons, most likely associated with the MCT 'bag-in-box' having a higher internal relative humidity. Mould incidence in both trials was low (less than 1%), but higher within the MCT 'bag-in-box' in the export trial.

Physiology of postharvest rind breakdown in Navel oranges

Duration: January 2002 to September 2005

Agencies: CSIRO Plant Industry and La Trobe University

A final report detailing outputs of the work was prepared and delivered to MVCB in March 2006. Briefly the main findings were:

External symptoms of rind injury were correlated with patterns of cellular collapse in affected flavedo tissue, and a classification system developed to aid consistent symptom identification and to improve communication within the supply chain.

Susceptibility of Navel orange fruit to chilling-related postharvest rind breakdown increases as fruits age, and marked differences in susceptibility between selections were apparent. However, predictors of susceptibility to chilling-related postharvest rind breakdown of fruit age, viz. protein content, ion leakage and water loss during storage, do not relate to the difference in susceptibility to chilling-related postharvest rind breakdown between selections. These results suggest that while increased ion leakage and loss of moisture from the flavedo occur as a result of chilling, they are probably not directly related to chilling injury development.

Some pre-storage treatments, such as hot water and methyl jasmonate, were found to reduce chilling injury across a range of fruits.

Associations have been made between such treatments and oxidative stress during low temperature storage. The oxidative stress associated with low temperature storage was counter-acted by increases in lipophilic antioxidants. However, the protective effects of the pre-storage dips were not associated with changes in flavedo lipid hydroperoxide concentrations.

Financial Benchmarking / Best Practice Project CT05007

The citrus industry has developed a consistent benchmarking framework, with valuable data collected over a number of years, enabling growers to assess their businesses and make better business decisions. The benchmarking project was jointly funded by the Murray Valley Citrus Board and Horticulture Australia Limited.

The objectives of the project were to:

- Undertake a comparative analysis of citrus businesses.
- Identify the key factors that influence business performance.
- Develop key indicators/benchmarks and targets to measure performance.

- Enhance growers understanding of business principles, evaluating and comparing cost and income performance.
- Provide feedback to growers encouraging the adoption of more effective business planning, based on knowledge of individual strengths and weaknesses.
- Provide feedback to the industry on key issues that affect business performance.
- Provide improved knowledge of the industry's needs to service providers provide a report on the findings.

Around 25 growers were involved in the benchmarking program, with data being collected over a three-year period. The information was analysed each year and compiled into a report to be used by growers and the industry.

Three CITTgroup meeting were conducted by RMCG Consultants and MVCB in September 2008 to transfer the information collected to all growers. The final report has also been placed on the MVCB website.

Projects Steering Committee Member

The MVIDO was a steering committee member on a number of committees predominately focused on best practice for citrus producers. The Project Steering Committees include:

- Fuller Rose Weevil Project
- Citrus Postharvest Research
- Kelly's Citrus Thrips
- Murray Valley IDO Network
- Irrigation Environmental Management Action Plan

Irrigation Efficiency and Drought Mitigation

Irrigation efficiency is still an important strategy identified within the MVCB's Operations Plan. To brief producers on the severity of the situation, the Murray Valley Citrus Board (MVCB) facilitated a water forum at the Coomealla Club, Dareton on Thursday 23 November, 2006. The forum was chaired by Robert Mansell, then Chairman of MVCB, and speakers included David Harriss, Executive Director, Department of Natural Resources NSW, Owen Russell, General Manager Communications and Development, Lower Murray Water and Barry Philp, Manager Industry Development, Department of Primary Industries and Resources, South Australia. In excess of 240 producers attended the forum.

This forum was followed up with workshops on Canopy Management for Drought, Maintaining a Citrus Business when the River Dries Up, Water Budgeting Tutorials, What works with Water, Drought Pruning Demonstrations, New Techniques in Irrigation, Understanding Water Trading, Managing Carryover for the New Irrigation Season, Water Outlook Information Session, Water Market and Trading Information, and Federal Government Drought Assistance Package.

On 16th May 2008, a water information policy session was held at the Mildura Function Centre. Speakers were, Trevor Jacobs, Operations Manager, River Murray Water, Murray Darling Basin Commission who spoke about the state of water storages within the Murray Darling Basin and how water is shared between the states. Graeme Turner, Director, Water Allocations, Victorian Department of Sustainability

and Environment; Derek Everson, Manager, Surface Water Management, NSW Department of Water and Energy spoke about their respective state storages and how state allocations are decided. Ian Matheson, Managing Director First Mildura Irrigation Trust and Owen Russell, Customer Service Manager, Lower Murray Water also gave presentations on strategies to deal with current allocation scenarios and how to manage carryover water. A question and answer session followed. Over 270 participants attended this information session.

Irrigation Record Keeping Template

Progress on the Irrigation Record Keeping Template is completed. Suitable templates were identified and evaluated to ensure suitability of application throughout the citrus industry. The template has been made available on the MVCB website www.mvcitrus.org.au. Citrus producers were advised of the template via our weekly citrus news and quarterly magazine Citrep.

Other Irrigation Activities

Promoted irrigation efficiency programs and research findings utilizing MVCB website and publications and dissemination of findings through workshops and CITTgroups

- Included best practice articles, (eg water use efficiency) in the Citrep and on the MVCB website to reduce wastage and improve productivity
- Release of the irrigation book, 'Drip Irrigation – A Citrus Growers Guide' in August 05

Grower Education and CITTgroup sessions

June 2005	Citrus Varieties and Rootstock Trials
August 05	Citrus Drip Irrigation Book Launch
	CITTgroups teleconference
	Pruning workshop NSW DPI/MVCB
September 05	IDO Steering Committee meeting – minutes attached
Sept/October 05	Pest Awareness workshops (6)
October 05	Nutrition Workshop Tienie Du Preez
November 05	Cropload Assessment and Chemical thinning workshop
	OH&S Project Manual Training Session Trial 1
December 05	Rind Quality Project Report
January 06	Yield Estimation And Orchard Nutrient Balance
	Assisting Industry with implementation of China Export Protocol
February 06	Understanding Tissue Analysis And Leaf Sampling
	Delivery of Registered Crop Monitor Officer Training Course
March 06	MFC Spanish Study Tour
	ACG Citrus Conference – Perth WA
April 06	Rind Breakdown/GA Colour Development/Crop Forecast
	Shipping Containers For Export
	Chemical Residue Risk Management for Export
May 06	USA Export Preview And Crop Forecast Update
	IDO Steering Committee meeting – minutes attached
	OH&S Project Manual Training Session Trial 2

June 06	National Citrus Citigroups Conference - Riverina
	Ralex Tangelo Trial Chapman Farms
	Blood Orange Group Information Day
	Frost Presentation – Understanding The Characteristics Of Damage (4)
July 06	Citrus Varieties Day – CSIRO
	Bayercropscience release of Confidor (2)
August 06	USA/Israel study tour – Steve Falivene (2)
	Pruning workshop – Dareton research Station
	Israeli presentation on cropload regulation - Erner
September 06	Citrus Gall Wasp workshop for Holland's Lake Rd growers
October 06	Pest Awareness workshops (9)
	Optimize Spray Potential for Citrus workshop
November 06	Technical workshop on the use of Corasil® and Du Wett in citrus
December 06	Water restriction presentations (5)
	DNE Presentation - USA Export Review
	Financial Benchmarking (2)
July 07	Oleocellosis Prediction Tools (3)
	Update of Water Allocations for NSW and VIC
	Victoria water update
September 07	Maintaining a citrus Business when the river dries up (3)
	Murray Valley Citrus Bus Tour
October 07	Federal Government Drought Assistance Package(3)
November 07	Mechanical and Chemical Thinning of Citrus Fruit
	Corasil
	Increasing Fruit Size
	Screen Protectant – Particle Film Technology
	Water Budget Tutorial
December 07	What Works with Water
January 08	UDA Export Season Review
February 08	AQIS Requirements for Export
	Pest Free Area
	Drought Pruning Demonstration Field Walk
April 08	Managing Kelly's Citrus Thrips
	Organic Citrus Farming
	Crop Monitors Training Course
	Increasing Profitability by High Density Plantings Farm Walk
	Citrus Quality Control Course
May 08	Murray River Information Session
July 08	New Techniques in Irrigation
August 08	New Citrus Varieties
September 08	Practice for Profit
October 08	New Scale Chemical for Citrus
	Understanding Water Trading
November 08	Soil Solution Workshop
	Seedless Italian Citrus Varieties
	Citrus Gall Wasp Spray Workshop
December 08	Citrus Nutrition Technical Seminar
January 09	USA Export Season Review
	Managing Carryover for the 2009/10 Irrigation Season
March 09	Export Crop Monitors Course

	AQIS Pre-Season Export meeting
	Citrus Nutrition Technical Seminar
April 09	New Citrus Varieties
	Murray Valley Crop Forecast
	Citrus Packing Shed Sanitation and Oil Use Workshop
	South African Citrus Varietal Trends
May 09	Citrus Nutrition Workshop
	Huanglongbing and Scale in Citrus
	Water Outlook Information Session
June 09	Citrus Research Field Walk
	Citrus Gall Wasp Spray Trial Farm Walk
	Irrigation Environmental Action Plan Workshop
August 09	Water Market and Trading Information Seminar
September 09	Water Outlook for the 2009/10 Season
October 09	New Systemic Insecticide for Citrus - Movento
November 09	Citrus Gall Wasp Spray Workshop
	Soil Solution Workshop
December 09	AQIS End of Citrus Export Season Review
January 10	US Export Season Review

Frost Event

Severe frost events throughout the Murray Valley in May and June 2006 had a major impact on production in 2006/07. The last frost event of similar magnitude occurred in 1982.

Temperatures plummeted to -11°C and -14°C on some citrus properties in the Nangiloc/Colignan area of Victoria where approximately 65% of Murray Valley citrus production occurs. The damage to individual properties varied from no damage to significant depending on the location of the orchard. A conservative estimate of the damage was lost citrus production of 16,000 tonnes.

In response to the frost event, the MVCB conducted frost damage assessment workshops throughout the region. The workshops demonstrated to growers a sampling method to identify and isolate where internal fruit damage occurred enabling producers to harvest with some confidence.

It was pleasing that there were very few incidents of frost damaged fruit reaching the market.

Pest and Disease Management

Pest Monitoring Workshops

Pest monitoring workshops were run by the MVIDO. The purpose of the workshops was to highlight the pests that can create significant rind damage/blemish to fruitlets in a short period of time, namely Light Brown Apple Moth (LBAM), Kelly's Citrus Thrips and Katydid, and whatever insect pests the group wished to find more information on.

The workshops were advertised and from expressions of interest, potential participants were asked to encourage their neighbours to participate. Sessions were held in the nominated grower's shed which lasted for an hour and then each participant was given a 10x hand lens courtesy of CITTgroup Australia to keep, shown how to use them effectively and then proceeded out in the field to put into practice some monitoring techniques and find the actual pests. Groups were limited to between 6 and 12 to encourage more interaction between the growers and the presenter.

Fuller's Rose Weevil Project

The MVIDO instigated a collaborative research project to reduce Fuller's Rose Weevil (FRW) populations. FRW is a quarantinable pest for our Asian markets, particularly China.

A steering committee which includes the MVIDO has provided direction for the project which will now be undertaken in two stages.

Peter Taverner from South Australian Research and Development Industry (SARDI) to submit an application to Horticulture Australia Ltd (HAL) as a Voluntary Contribution (VC) project for post harvest research to be undertaken in 2006/07. This research is to focus on post harvest oil and high pressure washing of the fruit.

Federal Government money was obtained for a three-year project which commenced in 2008 that focuses on both post harvest and field research aimed at significantly reducing FRW populations.

Citrus Gall Wasp

An incursion of Citrus Gall Wasp has occurred in the Holland's Lake district. MVCB funded and organised a release of native parasitic wasps in 2007 to start to manage this incursion. Funding was obtained from HAL for future annual releases of these parasitic wasps (2008 to 2010) to establish a population in this area. CGW parasites were purchased from Bugs for Bugs and distributed by the MVIDO and Field Officer to affected growers in early November (08 and 09). Workshops were held (08/09) with Holland's Lake growers to discuss release methodology and back up spray application to citrus patches that hadn't had releases.

These workshops were aimed at the growers around the Holland's Lake district that have been affected by an incursion of citrus gall wasp. As only one insecticide – Supracide – is registered for Citrus Gall Wasp and due to the annual life cycle there is only one opportunity for insecticide application.

The MVIDO worked with one grower during the 2009 season to trial a low concentration, high volume oil spray just before and during the time of adult emergence. The theory being that the oil coating on the leaves would be a deterrent to the female wasp landing and laying eggs. As the wasp has receptors in its tarsel segments to enable it to recognise a citrus twig, the oil coating disrupts the recognition process.

Early observations indicate that adult gall wasps showed a great reluctance to land on the oily leaves of the citrus trees. Instead, large numbers of adult gall wasps were landing and resting on a nearby nectarine tree that had not been treated with oil. While it is still too early to tell if the oil spray is enough to control the galling, the trees will be monitored over the next twelve months to check on the incidence of galling.

Trials of other insecticides were conducted over the previous season. Chemicals trialled were:

- Confidor Guard – ground application
- Supracide + Oil – spray application
- Actara – spray application
- Movento – spray application

The results from the chemical trialed showed that Movento, Supracide and Oil and Confidor Guard showed the most activity, with Actara showing no activity at all. Statistical analysis of the results showed there was no statistical difference between Confidor Guard, Supracide and Oil and Movento.

Dissemination of information for citrus canker and other exotic pests

Exotic citrus pests and diseases will be very detrimental to the citrus industry in the Murray Valley if an incursion occurs. Ensuring growers are able to identify the symptoms of citrus canker and citrus greening is an important strategy in the early detection of exotic citrus pests and diseases. Information on the symptoms of citrus canker and citrus greening has been disseminated to all growers in the Weekly Citrus Board News, Citrep magazine and workshops.

Movento and Actara Insecticide Trials

Local citrus growers attended presentations in Sunraysia to learn about two new insecticide products, Movento and Actara, including trials run in the Murray Valley area. With the recent label extension to include citrus, the MVIDO took the opportunity to educate local growers on the benefits of using Movento insecticides to protect against sucking pests and Actara which is specific to scale insects.

Export Protocols

The MVIDO organised, with AQIS NSW Industry and Investment, ACG and other key industry people for training on Export Protocols for Korea, USA, China, etc to industry. Numerous teleconferences were held over this period. A presentation of the Crop Protection Officers course for China protocol accreditation was also facilitated.

Quality Assurance

Citrus producers were provided with sufficient information on all quality assurance systems available to enable them to meet domestic and export market requirements.

A Stage 3 Safe Quality Food Workshop has been organized for citrus producers during 2010

Information was disseminated to growers through a range of communication tools.

- Weekly Citrus Board News which is also printed in the Snraysia Daily newspaper
- MVCB website
- Citrep magazine articles

Market Access Requirements

Domestic Market Reports

The MVIDO has collated, analysed and communicated accurate market information and encouraged a market responsive approach throughout the industry by analysis of market manifests, shed door prices, processor meetings and dissemination of information to growers and stakeholders through a weekly domestic (Melbourne, Sydney and Brisbane) market report throughout the Navel harvest period.

Quality Control Training Course

A quality control course for packing shed staff delivered by Rod Twyford was organised in 2008 before the harvest season commenced. A handbook was developed for all participants to take away with them. The handbook contains information and images on all pests and diseases of export concern, pests that are currently classified as actionable, defects for class one and two fruit, produce specification for Woolworths, quality defect percentages, Riversun specifications, example of inspection documents, Navel carton packing patterns and end-point sampling and phytosanitary inspection procedures for certification of fresh fruit and vegetables. The course was well attended (27 participants) and extra copies of the handbook have been requested from most packing houses. This course will run again in 2010.

Registered Crop Monitors Course

Registered crop monitors courses were facilitated by the MVIDO for March/April each year. Steve Falivene, District Horticulturalist delivered the course content. This course ensures that orchards are inspected by trained personal before they are registered for export to China, Korea and Thailand. All participants were given a guide to pests and diseases of export quarantine concern with a checklist to fill in for each orchard inspection.

Japanese Inspectors Visit

In June 2009, MVIDO co-ordinated a five day visit from an inspector from the Japanese Ministry of Agriculture Forestry and Fisheries (MAFF). The inspector visited eleven export packing sheds to check packing conditions in order that they be allowed to export citrus to Japan under seasonal area freedom.

Maximum Residue Limits

Maximum residue limits for all export markets have been disseminated to citrus producers through the Weekly Citrus Board News and the MVCB Website as required.

Other Activities

- Disseminated export market requirements to MV citrus producers as required
- Facilitated Seasonal Export meetings with AQIS and BA each year
- Facilitated USA Season Review meetings each year
- Participated in Riversun Export meetings
- Produced articles in regard to export market requirements for inclusion in Weekly Citrus Board News and local newspapers

Planting and Production Data

Crop Forecasting and Planting Statistics

The MVCB Crop Forecasting System manages data collected from field density and size counts. Current season information is related to historical information to calculate expected fruit sizes and crop yield prior to harvest.

During 2006 there was a review of all sites to ensure they remain representative of varieties and ages planted in the region. To be able to maintain accuracy all sites have been Globally Positioned (GPS) and organised into folders categorized by area with an ortho-imaged map of each property. Also to improve data entry into the database program, The MVIDO implemented the use of hand held Personal Digital Assistants (PDA) for rapid data entry from field collected data.

The MVIDO implemented the collection of fruit blemish data in 2007. The fruit used for sizing data is also examined and assessed for degree of blemish. This is carried out during March, with the rating having the ability to be correlated to the individual fruit size. The fruit is assessed without removing it from the tree and obviously does not take into account harvest colour. The basis of assessment is correlated to the Riversun Quality Packing Manual. The blemish report categorises the blemish into Pest, Wind, Fruit Defect, Clean, Physical and Colour to indicate the likely cause of blemish.

Crop forecasts have been issued in April of each year to packers, processors and other citrus industry stakeholders. The MVIDO has also presented this information to growers at the annual consultative meetings each year.

Regional data for National Planting Statistics database

National Planting Statistics database has officially commenced, and the MVCB regional database has been passed onto Citrus Australia Limited. Up to date property maps and registration forms have been up delivered to growers to review current details.

Communication

Media Publications

On the Grapevine (Monthly feature in the local Sunraysia Daily).

September 05	Pest Awareness - Looking At The New Season Ahead
October 05	Citrus Nutrition And Fertigation A Growers Perspective
	Crop Regulation For Citrus – Now Is The Time To Consider The Options
November 05	Nutrition And Irrigation For The Future
January 06	Determining How To Improve Outturn Quality For Citrus Export
February 06	Orchard Compliance For Asian Export Markets
March 06	Citrus Leaf Sampling For Nutrient Analysis
April 06	Know Your Potential Effective Returns
May 06	Differentiation In The Marketplace
June 06	Fruit Size and Quantity Does Matter In the Marketplace
July 06	Window Closing For Spraying “Developing Buds”
August 06	Prepare for Next Season’s Harvest
September 06	Monitor Cropload Potential for a Marketable Crop
October 06	Strike the Target when Spraying in Citrus
November 06	Determine Your Harvest Packout Now Opportunity or Waste of Time
December 06	Early GA for Export - When to Apply?
January 07	‘Citrus Oil Sprays, Which One?’
February 07	Committing fruit for export
March 07	Water Carryover
August 07	Citrus Gall Wasp Incursion
September 07	Crop and Canopy Management
October 07	Crop Regulation – Now is the time to consider the options
November 07	Drought Assistance – A Shopping List for Growers
December 07	Rind Quality
January 08	Committing Citrus for Export
March 08	Septoria Spot
April 08	Preparing for Harvest to Maximise returns
May 08	Windbreaks for Citrus Orchards
June 08	Ralex for crop manipulation
July 08	Ralex for maximizing fruit size
August 08	Preparing Citrus for Reduced Water Allocation
September 08	Citrus Production Notes for August
October 08	Release of parasitic wasps in Holland’s Lake
November 08	Citrus Gall Wasp Release
December 08	Longtailed Mealybug
January 09	Managing Scale insects on Citrus
February 09	Committing Citrus for Export
March 09	Snails – A quarantine concern for export citrus
April 09	Autumn GA Spray for Citrus
June 09	Citrus Export Markets Phytosanitary Requirements
July 09	Determine Young Effective Returns before Harvest
August 09	Decisions Need to be Made Now for Next Season’s Crop Load

September 09	Integrated Pest Management
October 09	Pruning Citrus
November 09	Citrus Gall Wasp Release
December 09	Mealybug Pests in Citrus
January 10	Citrus Benefits from Compost

Citrus Insight

October 05	Facilitating the communication and development Stage 2. Murray Valley Citrus Leadership Development Practice for Profit
October 06	Provided a summary update of HAL funded project in MVCB region as well as photos
October 07	Provided a summary update of HAL funded project in MVCB region as well as photos
October 08	Provided a summary update of HAL funded project in MVCB region as well as photos
October 09	Provided a summary update of HAL funded project in MVCB region as well as photos

MVCB Citrep (Quarterly Magazine)

Volume 40	CITTgroups – South Australian Best Practice Tour Blood Orange Growers to Unite Plant Breeders’ Rights – Intellectual Property Issues for Hort Industry New CITTgroup Project and Logo Preparing Orchards for Market Access to Korea
Volume 41	Drip Irrigation a Growers’ Guide IDO Appointment
Volume 42	Managing Risk – an Industry Challenge Introducing Industry Development Officer Regional Citrus Promotions Report
Volume 43	Crop Forecasting – Review With The Aim To Improve Impact on Citrus – Industry Training Program Major Rind Breakdown Investigation Riversun – end of season presentation
Volume 44	Navel & Valencia Crop Forecast season 2006/07 CITTgroups 2006 Update and Into the Future Impact On Citrus – Graduation Session Blood Orange Group Shows Potential
Volume 45	New Citrus Varieties for Australia - CITTgroup Activity Does Workchoices apply to me? OH&S for Murray Valley Growers -MVCB Project update
Volume 46	Impact on Citrus – MVCB Emerging Leadership Development Program Pest Awareness Workshops
Volume 47	The 2006 Frost Event
Volume 48	Auscitrus River Road Development
Volume 49	Mary Cannard Appointed as Industry Development Officer
Volume 50	Citrus Gall Wasp Incursion Biological Control Options
Volume 51	Successful Citrus Promotion at the Mildura Show
Volume 52	Citrus Ladies Morning Teas

	Fruit Fly in the Spotlight
Volume 53	Beware of Frost Damage to Citrus
	Harvest Picnic at Hanging Rock
Volume 54	New Cost Effective Methods to Increase Size of Navels for Export Markets
	A Juicy Tale of the Citrus Industry
Volume 55	Healthy Eating in Schools Encouraged
	Journey of an Orange
	Native Parasitic Wasps Released to Control Gall Wasp Incursion
Volume 56	The Farmer's Cup
	China Study Tour Report
Volume 57	Crop Forecast for the 2009 Season
	Citrus Greening
	Out and About with Promotions
Volume 58	Citrus Production Notes for Spring
	MVCB Partnership Expands its Promotions
Volume 59	The Business of Controlling Fruit Fly
	MVCB's Major Regional Promotion
	Asia Fruit Logistica Study Tour
	Sunraysia Show Promotions

Weekly Citnews (also printed in Sunraysia Daily newspaper)

The MVIDO compiles a weekly newsletter with harvest updates (domestic and export), seasonal on farm cultural practices, pest awareness notices and information, irrigation allocation updates for both NSW and Victoria along with other pertinent information for citrus growers in the Murray Valley.

Australia Citrus News National Monthly Publication

January 06	Pest Monitoring – Getting Started
July 06	Frost Damage in Citrus Fruit – Understand the Characteristics of Damage
September 08	Citrus Ladies Morning Teas
August 09	Citrus Gall Wasp

AUFFVA – yearly national horticulture publication

April 2006	Citrus in the Murray Valley
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The Weekly Times

July 06	Provided information about Citrus Varieties day at CSIRO
	Update on Valencia forecast and frost damage
April 08	Crop Forecast Information
April 09	Crop Forecast Information

Riverlink Newsletter

November 06	Provided article covering the events of the FRW project.
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Other Publications

- Contributions made to the Factsheet “Managing Citrus Orchards with Less Water” under the research and industry banner.
- Contributions made to the Factsheet “Windbreaks for Citrus” under the CITTgroup banner.
- Website restructures to include more information about Board activities and growers requirements to remain viable in citrus industry.

Television

WIN TV

February 06	China Workplan Protocol
April 06	Crop Forecast release
May 06	Crop forecast update and frost damage potential
August 06	Crop forecast update and frost damage
October 06	Brazilian delegation to MVCB – interview about the purpose of their visit and what benefit this is for MVCB citrus growers
May 06	Crop forecast update and frost damage potential
February 08	NSW Water Allocation
November 08	Citrus Gall Wasp Incursion
April 08	Crop Forecast
May 08	Murray River Perspective
July 09	Sunrise Morning show in conjunction with Nangiloc School
July 09	Japanese Ministry of Agriculture Fisheries and Forestry Export Protocol

Radio

ABC Radio

April 06	Chemical Risk Management
August 06	Provided information on potential farm gate value from frost damage in MVCB
April 06	Chemical Risk Management
May 05	Exotic Pest and Disease regional inspections
February 08	Citrus Ladies Morning Teas
March 08	Citrus Gall Wasp
April 08	Crop Forecast
October 08	Heavy Flowers – how to maximize fruit size
November 08	China Study Tour
April 09	Crop Forecast
October 09	Light Flowering translates to low crop

Promotions

The MVIDO has been proactive in promotion citrus in the Murray Valley region and in wider Victoria at shows and festivals. Fresh cut citrus and freshly squeezed juice for tastings were promoted for all major citrus categories and some minor varieties, eg Blood Oranges, Red Grapefruit. Information sheets on these minor varieties were also prepared and handed out to the general public. These shows and festivals have

been an important component of educating the general public on the regreening of late season Valencias.

Best practice citrus production was promoted at the Mildura Field and Gadget Days. This included the involvement of citrus pest researchers to educate growers on the status and results of their projects. The citrus growing manual, good bug book, drip irrigation management for citrus along with various other citrus publication and citrus variety information sheets were made available to growers.

July 05, 06, 07, 08	Golden Rivers Festival – Barham
August 05, 06, 07, 08, 09	Wentworth Agricultural Show
October 05, 06, 07, 08, 09	Mildura Show
October 06. 07, 08, 09	Mildura Field and Gadget Day
February 06, 08, 09	The Age Harvest Picnic – Hanging Rock
November 07, 08, 09	The Age Harvest Picnic Werribee
November 09	RACV Energy Challenge

Social Responsibility

Impact on Citrus – Leading Industries

The MVIDO was instrumental in facilitating the Impact on Citrus Leadership Course. The 2006 and 2007 Impact on Citrus program resulted in the next generation of leaders being positioned to make a more effective contribution to industry both now and in the future. The MVCB initiated the program having recognised the need for succession planning within industry organisations and gained support funding from Horticultural Australia Ltd.

The intensive three month training program included two skill development sessions, industry dinners and panel sessions, together with participants undertaking an industry project with the support of a mentor. More specifically, the program enabled the participants to increase their confidence, expand their networks, increase their industry knowledge and develop their skills to become more effective at a personal, enterprise and industry level.

OH&S MVCB project

The OH&S Manual, *A Practical Safety Guide for the Horticulture Industry in the Murray Valley*, is now available to all registered growers. The focus of the Manual is to be proactive and adopt best practice when dealing with all issues related to workers and OH&S issues.

The Manual was comprehensively reviewed by all commodity groups including the citrus industry prior to its completion, with two citrus producer workshops undertaken during the development phase of the Manual to ensure practical application on-farm.

Networking and Development

Study Tours and Conferences

The MVIDO attended a variety of conference and study tours throughout the duration of the project. These conferences provided an excellent learning environment and an opportunity to network with other horticulture and citrus industry stakeholders.

ACG Conference - Perth

ACG Conference – Renmark, 15 -19 April, 2007

AGC Conference – Griffith, 13 -15 October, 2008

CAL Conference – Mildura, 9-11 November 2009

Irrigation Australia Limited Conference – 18-20 October, 2009

MFC Spanish Study Tour

The MVIDO accepted an invitation by Mildura Fruit Co. to participate on tour in March 2006, which included networking with leading citrus growers from the MVCB area and researchers from NSW DPI.

11th International Citrus Conference and study tour of citrus in China

The 11th International Citrus Congress was held in Wuhan, China October 26 to 30, 2008. The MVCB Board felt that this was an appropriate conference for the MVIDO to attend to learn further about international citrus research and researchers.

It was recommended she submit an abstract to the Conference Committee for a poster presentation at the Congress. The submitted abstract was accepted by the organising committee with the topic being the ‘Sunraysia Pest Free Area’. There were numerous enquiries during her poster presentation.

An MVCB supported VC funding application to Horticulture Australia was granted and funding obtained to attend the congress. Mike Arnold, Chairman of Auscitrus coordinated a post conference study tour that incorporated visits to supermarkets, wholesale markets, citrus orchards and research centers. A comprehensive report was written and presented to the Murray Valley Citrus Board. The MVIDO also helped to compile the Australian report to HAL on behalf of the Australian representatives that attended the congress.

Asia Fruit Logistica

MVIDO and five citrus producers attended the Asia Fruit Congress and Fruit Logistica in Hong Kong from 2nd to 4th September 2009. The Congress provided an insight into Asian retail trends from a global sourcing perspective, the significant growth in the middle class in China and changes in purchasing trends. Speakers at the Congress spoke about China’s role as a consumer market and global supplier and the key challenges to China’s future growth.

Fruit Logistica provided a venue for over 200 exhibitors from 33 countries and Australian produce was very well represented. While in Hong Kong the group visited a small privately owned fruit and vegetable market as well as the larger government owned wholesale markets where Murray Valley oranges from a range of Sunraysia packers were examined.

The group also visited Guangzhou, China to tour the largest fruit and vegetable market in Southern China and met with Austrade official, Kathy Chen and the head fruit and vegetable buyer from the largest supermarket chain in China. Buyers are keen to purchase and sell our citrus fruit and are impressed with the quality and taste, however, they are constrained by the unworkable China protocol in respect to Fuller's rose weevil. A relaxing of these protocols would certainly open up a very lucrative market for Sunraysia citrus producers.

Citrus Canker and Huanglongbing Study Tour to California and Florida

MVIDO participating in a HAL funded study tour led by Dr Patricia Barkley. The group, consisting of citrus growers, extension personnel, citrus nurserymen, citrus pathologists, Queensland Biosecurity surveillance personnel and private IPM specialists, visited orchards, research centres and citrus nurseries in California and Florida to study the impact and management of the devastating citrus greening disease or Huanglongbing (HLB) and its vector, the Asiatic Citrus Psyllid (ACP), which is making the incursion of Citrus Canker look like a case of pimples.

California has ACP present and has implemented a spray program of broad spectrum insecticides to reduce numbers. As yet they have not detected any trees infected with HLB. While the group was there Arizona, which also has a small citrus growing region, announced the detection of ACP in their orchards.

Florida has HLB and citrus canker and it was devastating to see the effects of HLB on what was once a healthy productive industry. Many orchards the group visited had numerous trees removed from production and had also implemented a costly spray program of broad spectrum insecticides to try and reduce the spread of HLB.

Both ACP and HLB are endemic to the islands of the Indonesian Archipelago and East Timor and both have now been found in north-eastern Papua New Guinea. The proximity of Australia to these areas poses a very serious biosecurity threat to the Australian citrus industry.

Training and Personal Development

- Impact on Citrus Leadership Course Participant
- Business Writing Course
- Project Management Course
- Irrigation Management Workshop – NSW DPI
- Advanced Drip Irrigation – NSW DPI
- Soil Solution Workshop by NSW DPI – developing a better understanding of soil nutrition and its movement through the soil and the various methods to measure them.
- Australia Women in Agriculture Leading the Way Course
- Monitoring, Evaluating and Reporting Course
- Crop Protection Officer
- Citrus Nutrition Technical Workshop
- Soil Solution Workshop
- Leaf Analysis Workshop
- MVIDO stepped into the Chief Executive Role on a number of occasions during absences for leave and illness and while the CEO role was vacant.

Industry and Related Meetings

To keep abreast of the latest research information and other citrus industry requirements, the MVIDO attend a number of industry meeting, including:

- Citrus Industry Researchers and Extension Officers Liaison Day 2005 to 2008
- Horticulture Australia Ltd IDO/IDM Conference 2005
- MVCB Board meetings 2005 to 2009
- MVCB Budget meetings 2008,2009
- MVCB Grower Consultative Meetings 2005 to 2009
- Riverlink Research Meetings 2006 to 2009
- Dry Inflow Meetings 2007 to 2009
- Murray Valley Industry Development Officer Network, 2005 to 2009
- Horticultural Industry Network Victoria, 2008 to 2009

Appendix One

Evaluation

Executive Summary

The evaluation of the Murray Valley Citrus Industry Development (IDO) Project examined the effectiveness of the project in addressing regionally specific challenges, the overall effectiveness of the role over the last four years, and strategic directions for the next three years.

The evaluation was conducted through an examination of existing data, and the development of new information through a focus group and semi-structured interviews with citrus growers.

It was found that the IDO project has been highly effective in addressing regionally specific issues for Murray Valley Citrus growers. The strongest examples were specific pest and disease issues and responding to low water availability.

Based on the information examined in this evaluation it appears that the overall IDO role has been effective in meeting project objectives. Citrus growers spoke highly of the networking and communication outputs of the project. There was a high level of satisfaction with the organised events, for example, 96.1 percent of survey respondents at IDO organised events were either satisfied or highly satisfied. Discussions with growers who were less satisfied with the role indicated that they had expectations that were outside the scope of the project.

For the next three years pest and disease management, growing fruit for market specifications and keeping pace with new production techniques will continue to be important issues. Increasingly important are the issues of dealing with changes in the industry structure, local climate, water availability and the federal Government's Carbon Emissions Trading Scheme.

In order to deal with these current and emerging issues the ongoing communication and networking outputs of the IDO role will continue to be of vital importance to Murray Valley Citrus growers. The information transfer role needs to continue, however there may be enhanced outcomes from a reduced emphasis on specific issues and a new focus on enhancing citrus growers' long term decision making skills and assisting growers to plan with confidence in an uncertain future.

Evaluation Scope

1. An evaluation of the outcomes and outputs of the current project to determine its effectiveness, particularly in addressing regionally specific challenges for MV citrus growers and utilising data and information from a range of sources to substantiate as far as possible the evaluation findings. Any limiting factors should be included in the consultants' report.
2. The effectiveness of the Industry Development Officer's role, and
3. Strategic directions, encompassing regional specific issues that should be addressed by the IDO project for the next three years.

Methods

The data to answer the key evaluation questions was sourced using the following three methods:

Document review

Approved project application
Participants' evaluation of CITTgroups
Project milestone reports
Relevant industry statistics.

A focus group

The focus group participants were seven citrus growers, representing six orchards ranging in size from 14 hectares to 70 hectares. All of the participants were based in New South Wales and were active CITTgroup participants.

Interviews

Semi structured phone interviews were conducted with two citrus growers to further explore and confirm the findings from the focus group. These growers were not regular CITTgroup participants. The sampling for the semi structured interviews was purposive, and designed to explore viewpoints from growers who had a different pattern of accessing the services of the IDO role than the focus group participants.

Findings

Document Review

The milestone reports for the MVIDO program provide concise documentation of the activities conducted by the MVIDO program. The project application provides a thorough outline of the intent of the MVIDO project, which was outlined in the introduction to this evaluation report. The CITTgroup evaluations provide a valuable assessment from citrus growers of the effectiveness of a major component of the MVIDO project information transfer strategy. To investigate the effectiveness of this component of the MVIDO program, a meta evaluation of the CITTgroup evaluation reports was conducted.

CITTgroup Meta Evaluation

A comprehensive record of participant assessments of each CITTgroup event have been collated and maintained by the IDO. This record provides a snapshot of citrus growers' reactions to the events that have been organised for them over the last four years. A summary of results for each event were provided by the IDO for this evaluation.

Feedback sheets were collected from 52% of attendees at events over the last four years.

Individual comments on the feedback sheets provided valuable information for the IDO in planning future events and providing "evaluation on the run".

Participants indicate whether or not they are likely to change any practices due to what they have seen or heard at each CITTgroup event. For nearly all events there was a very high ratio of participants indicating that they intended to make changes after a CITTgroup event.

Participants also provided a satisfaction rating for each event. Variations in the satisfaction rating were analysed to determine the topics that received the highest satisfaction ratings. The events were grouped into themes so that statistical analysis could be applied (refer to Appendix 1).

The vast majority (96.1 +/- 1 percent) of participants who filled in the feedback sheets were either satisfied or highly satisfied with the event(s) they attended. Due to this statistic, comparative analysis between the themes was conducted using only the satisfied and very satisfied variables.

Table 1: Participants satisfaction rating of CITTgroup events

Topic theme	Very Satisfied	Satisfied	Percent Very Satisfied
Pest & Disease	64	23	73.56% *
Agronomy	57	31	64.77% *
New Varieties	31	19	62.00%
AQIS	15	10	60.00%
Drought	58	43	57.43%
water workshop	45	45	50.00%
Misc	12	27	30.77% *

* = Statistically higher than the Water workshop

* = Statistically lower than the Water workshop

Note 1: the individual events that have been combined to form the themes are outlined in appendix 1.

The themes receiving the highest ratio of very satisfied participants were Pest and Disease and Agronomy. The ratio of very satisfied to satisfied responses was statistically higher ($\chi^2 < .05$) than 50:50 for these two themes.

The water availability seminar “Murray River Perspective for Irrigators” which was jointly organised by Sunraysia IDO network scored an equal ratio of very satisfied and satisfied participants. However 10% of participants were unsatisfied with the event. This is the only event organised by the IDO project that received any unsatisfactory responses. Although 10 % indicated they were unsatisfied, over 90 percent indicated that they had learned something new and almost 90 percent indicated that they would either trial or make changes to their management based on the seminar.

The drought theme received a mixed response, with an overall small majority of very satisfied participants. The 2007 event “Maintaining a Citrus Business when the River Dries Up” received the highest ratio of very satisfied to satisfied (15:2) of all the IDO events, however it also received the only 2 very unsatisfied responses. The dissatisfaction recorded at the water and drought events may have been due to the dire

circumstances at the time, or maybe were due to the particular information delivery approach utilised at these events. I recommend that the feedback sheets are modified to capture explanations from dissatisfied participants to ascertain the cause of dissatisfaction.

Overall these results indicate a very high level of satisfaction with the events that the IDO project facilitated. This was confirmed in the focus group (see below).

Focus group

The focus group consisted of two components:

- A review of what made CITTgroup and other MVIDO events and activities effective for Murray Valley Citrus growers.
- The underlying aspects that led to highly effective MVIDO organised events were timeliness and relevance.

This aspect was particularly relevant to responses to pest and diseases issues, and water availability. It was also an underlying component of the agronomic theme of events.

The support in pest and disease was twofold; firstly through the timely provision and sharing of information at CITTgroup events, and secondly having someone on the ground keeping an eye out, and keeping growers aware and focused on pest and disease threats.

“I would not have known there was Gall wasp on my block if it wasn’t for the IDO”

The focus group participants spoke highly of the response to low water allocations. There was acknowledgement that they were all in “unchartered waters” and the MVIDO project response was put together with very short notice and enabled growers to learn from other growers who had been through low (or zero) water allocations. The response provided a “clear and strong message” as well as an information pack for growers to review.

“The response to the low water allocations was quick and effective, we heard from the right people in time to do something”

It was also noted that the MVIDO project provided a great way for new entrants to the industry to gain knowledge and skills quickly.

Social component

This was a particularly important outcome for the IDO project as the majority of Murray Valley growers have been struggling through tough conditions over the last few years. The IDO project provided opportunities for growers to get off their block and talk to other growers. This resulted in growers benefiting from realising they were not the only ones struggling, and gave an opportunity for growers to keep each other in the know and respond effectively to quickly changing circumstances. The focus group participants commented that this social interaction and information transfer may have contributed to an incidence of mental health issues that was below anticipated levels.

“Not much good news lately, it’s important to know you are not alone.”

The peer support that developed through IDO project events assisted growers to make changes that had a high degree of emotional impact, such as severely pruning trees for survival through low water allocation seasons.

The aspects of the events that made them most enjoyable for growers were the down to earth and focussed delivery of information. The events gave growers a chance to laugh and enjoy social interaction with other growers. Some participants said that they have formed strong networks with other growers that they met through IDO project activities.

“A chance to laugh and get to know other growers”

Other aspects

The clarity of information was an important aspect of effective activities. This was highlighted by one focus group participant who noted that the citrus cost of production project was very useful at the beginning, and gave quite a few growers a wake-up call. However they felt it became too complicated when additional analysis was incorporated in later iterations and the complexity reduced the value for some growers.

The value of the industry statistics collated through the IDO project was highlighted when the industry and relevant government departments needed to make a quick response to low water availability. The ability to quickly provide industry statistics specific to the Murray Valley enabled authorities and industry representatives to develop appropriate responses.

An exploration of the regionally specific issues that should be addressed by the MVIDO project over the next three years.

Table 2: Summary of the issues that arose in the focus group

Issues facing the Murray Valley Citrus industry over the next three years. Generational change (who are the new growers?) Production techniques (Change to production technology) Water availability Climate change Emissions (ETS) Varieties for the future (growing for the market) DPI role change (regional person {wholesale v's retail information delivery})	
Suggested IDO project responses	Explanation
Continue the information transfer role.	
Assisting growers to develop decision making skills.	Making decisions that are based on long term production, when under pressure from short term crisis.
Assisting growers to plan with confidence when future variables such as climate and water availability are uncertain.	Lessons from other industries facing change, programs to enhance abilities to deal with future uncertainty such as scenario planning or futures workshops.

There was an exploratory discussion around the issue of some citrus growers apparently making reactionary decisions to immediate problems, which may have detrimental long term effects on their orchard. It was felt that there may be value in a program to enhance decision making skills. For example, be able to consider the long term physiological response of the tree when making an agronomic decision. A suggested response was for the IDO to facilitate a group of growers that travel to various orchards with different problems over a season or two. At each orchard long term solutions would be developed by the group using a problem solving approach.

Adoption of a more strategic approach to decision making may assist in the widespread adoption of available technology. This may have significant impacts on economically sensitive outcomes such as fruit size.

Another important strategic issue that was discussed was climate change and the impact it may have on the future of the Murray Valley citrus growers. A program to assist growers to work through the issues that will impact on them and make preparatory changes was seen as providing benefit to the industry. A novel approach that will help growers to plan and operate with confidence when there is a higher level of uncertainty about future climatic, regulatory and market conditions. One such approach that has been recently used across industries facing uncertainty has been scenario planning. Another option is the Agri-futures workshops currently being trialed by DPI Victoria.

Interviews

Through the semi structured phone interviews conducted with citrus growers who were not regular CITTgroup participants it was found that these growers tended to utilise commercial sources and networks for technical and agronomic information. This is not to say that the CITTgroup active growers did not utilise other sources of information, rather the growers interviewed tended to be more reliant on their packing shed and private agronomic consultants.

One of the interviewed growers met with a consultant every fortnight to keep track of the orchard and plan future agronomic activities. However he still did attend the occasional CITTgroup activity, and found the events to be of value: *“I love the CITTgroups - listening at the groups is good value”*

This grower also found the other communication activities of the IDO project to be useful: *“The Newsletter is very good – I use it all the time. Timing of sprays and what people are spraying.”*

The other interviewee did not utilise the IDO project products, commenting that his other information sources (consultants, packers and direct from NSW DPI) provided a fast and effective transfer of information that satisfied his needs. He was an experienced grower who required a relatively sophisticated level of technical information, and did not demonstrate the need for peer support that was described by the focus group participants.

Common to both interviews was the strong view that Agripolitical effort to open new international markets was more valuable than information transfer for existing market opportunities.

“Open the market and we’ll be able to grow the fruit” was the sentiment expressed.

This service is beyond the scope of the IDO project, but these comments provide an interesting insight into the expectations of these citrus growers.

Both interviewees indicated that the low water allocations had left them feeling fatigued and uncertain about their future in the citrus industry. This was a contrast to a number of the focus group participants who had found that the challenging conditions of recent seasons had focussed their efforts, and made citrus growing more enjoyable than ever before. One interviewee commented that most citrus growers would be very uncertain about what they would be doing in ten years time, whereas five years ago most would be quite certain of their futures. I have interpreted this as an indication that some growers are finding it very difficult to plan with confidence. This lack of confidence has developed from uncertainty of future water allocations, climatic conditions and government policy.

Programs to assist with strategic decision making and planning with confidence in an uncertain future (as suggested by the focus group participants), may be of enormous value for growers in this planning dilemma.

Conclusions/ recommendations

The effectiveness of the IDO project, particularly in addressing regionally specific challenges for MV citrus growers.

Based on the evidence collated and examined for this evaluation it is apparent that the IDO project has effectively addressed regionally specific challenges. Two specific challenges that were regularly mentioned by growers were: pest and disease incursions, and water availability.

The effectiveness of the Industry Development Officer's role

The Industry Development Officers' role has provided effective communication, peer support and networking opportunities for citrus growers. Citrus growers commented that the MVIDO project had provided timely, down to earth and relevant responses to the issues they have faced over the last four years.

The social responsibility objective of the project received praise from the focus group participants.

The MVIDO project activities provided valuable networking opportunities for citrus growers grappling with highly emotive decisions that required more than just technical knowledge to make.

The networking and consistent communication between the citrus industry and government agencies proved to be of immense value.

A particular example was the ability to supply local industry statistics immediately to agencies facing urgent resource allocation decisions when water allocations were reduced.

The IDO role provided information to growers through a range of methodologies. The level of satisfaction that growers reported with these various approaches was generally high.

Two new regionally specific issues were identified for inclusion in the MVIDO project for the next three years. These new issues are:

Decision making skills – enhancing growers’ ability to make decision for long term outcomes.

Managing in uncertainty – assisting growers to plan with confidence in a context of uncertainty

The specific issues addressed by the current IDO project are still relevant to the Murray Valley citrus industry. These include:

- Growing quality fruit.
- Pest and Disease Management.
- Market Access Requirements.
- Planting and Production Data.

The time devoted to addressing these specific issues will need to be prioritized against the time required to address the two new issues.

The networking, communication and social responsibility roles of the IDO project have been valuable to industry, and it is likely that they will continue to be of value over the next three years.

Appendix two – steering committee meetings

Minutes of the Murray Valley Citrus Industry Development Officer
and CITTgroup Co-ordinator Steering Committee
Conducted Tuesday 3.30 pm
Murray Valley Citrus Board office, 58 Pine Avenue Mildura

Present

Paula Gordon, Robert Mansell, Colin Nankivell, Keith Leamon, Ken Bevington, Jeff Milne, Tony Filippi

Apologies

Greg Chislett, Ian Thornton, John Tesoriero Michael Keenan, Andrew Hollingworth

Welcome

Meeting opened at 3.30 pm by Chairman Robert Mansell, who welcomed committee

Business/Actions from previous meeting

No business arising from previous meeting and were taken as accepted.

CITTgroup

Crop-forecasting

Currently gathering biometrician report from SA project in 2000. In process of dissecting and evaluating present sites and whether they fit the criteria.

Decided that only a small 10-15% change is the maximum allowed to keep previous season data relevant.

OH&S Project

Project nearing completion of draft stage. Ready now in late September to run trial with selected growers, it was decided at the last meeting that growers with both citrus and winegrape enterprises be included to enhance proof screening of the manual.

Photos and final editing for presentation to workcover by Jan/Feb 2006.

IDO mentioned that OH&S is a different issue to Food Safety compliance, and the adoption of the manual is a minimizing of risk from possible prosecution.

PG asked who the education provider will be once launched and if it is available to landcare groups.

Citrus Drip Irrigation – Book Launch

Presentations and property visits extremely well attended, RM noted the positive aspect of the day from a growers perspective and that format should be encouraged.

A side issue raised about grower property visits was about indemnity insurance and which party was liable, even though MVCB is covered growers are still liable so they must be insured this could discourage grower involvement for CITTgroups.

Suggested for IDO to investigate insurance from HAL and MVCB perspective and other industry with extension work.

Pest Awareness – Media and Activity

Conducting an early season pest awareness workshops at the end of September based on hands on in the field and 6 –8 people participation aimed at attracting new people to these types of activities and greater introduction to them.

Although this topic may seem overdone it is the reinforcement aspect at the specific time of year which is important.

Committee accepted the activity favourably and mentioned to also ask these growers as to what other issues they want the CITTgroup to conduct.

Form this activity PG brought up the issue of maintaining a working relationship between the organizations capable of providing them, so projects and information is not being repeated and or presented simultaneously. Suggesteset a yearly meeting with DPI, MVCB & ACG

Pruning Workshop

IDO attended a partially MVCB sponsored activity at Dareton run by Steve Falivene, where topics such as the aims and benefits of canopy management and growth habit of citrus also the different methods of pruning were delivered. Then an actual demonstration by SF was follow by participants working on trees by themselves.

18 participated in the activity with well over half of those employed by growers and sent to the course.

Committee felt that pruning courses are now not giving anything new, IDO explained that these courses are assisting to upskill the general farm employee and that pruning now is focusing more on young tree management rather than old tree rejuvenation.

SQF

IDO attended workshop in Adelaide Produce Market on 2/9/05, Paul Ryan was the presenter, SQF are now making a huge push worldwide to be the Number one service provider including Europe. Benefits that were given, improved and updated information on their website, their aim is to develop trust in their system therefore auditors must have suitable industry experience, audits must be conducted thoroughly to remain creditable as cutting corners based on price undermines this creditability. SQF charges to auditors are based on inspected company turnover.

CN and RM generally very skeptical of these organizations and question their true worth.

Citrus Breeding and Evaluation

Meeting held at Dareton in late August with both researchers and extension people in Australia wide. Topics discussed were the National Planting Database; updates on the latest breeding programs and long term experiences with the Breeding and Evaluation programs.

Varieties to propagate in spring/summer 2005

Golden Nugget mandarin; Nour clemintine & Or tangor (*most level of interest especially from large corporate blocks*)

Autumn 2006

Shatsa Gold; Tahoe Gold & Yosemite Gold, all mandarins

Varieties in quarantine system

Early Gold (juice); 3 other juicing varieties from China; a seedless mandarin and 3 Blood oranges from Italy

Failed to establish in quarantine

2 seedless mandarin and 1 blood orange with a further 2 blood orange varieties removed altogether.

Graeme Sanderson stated the Afourer mandarin has had the highest budwood sales in last 2 years.

Problems with program:

Mutation takes about 10 years to reach industry

Continuity of work can be broken through changes in staff; system does not lend itself to long-term commitment

Comment by Sandra Hardy on should we be placing greater emphasis and resources into the varieties that we have now and improve on them rather than search for the out season “more popular” so called varieties.

Action Still Required

Young Rural Leaders Course

Finally approved, contacted Cheryl Phillips of Leading Industries, will now proceed to organize Farmbis (*aware of NSW not able to source funding but claims there are ways to claim*). We need to organize a time of the year to deliver the training - 3month block.

Practice for Profit

Has already commenced, a mail out to growers with greater than 5 hectares Claire Kelliher has started to interview some growers as well as the growers who have applied via the mail out. Will seek to select further growers after the school holiday period.

Horticulture for Tomorrow

PG asked to find out about the status of the project and to contact Charles Thompson

Blood Orange Group

No contact has been made by IDO at this stage. Suggested by committee to make at least preliminary contact prior to next meeting.

Media

“On the Grapevine” – pest awareness

Citrep – ensure topical articles are included with all issues

Planning

Ammonium Nitrate replacement

Due to the dangerous goods handling coming into force post January, RM suggested it would assist growers if they had a workshop to understand the different fertilizers to use as a replacement to AN.

Evaluating Projects

PG suggested that we improve the way we evaluate projects, rather than wait till the end and try to decide how to provide proof and worthiness of the project, we should commence at the start to think how we can provide evidence throughout the project, which should lead to improved milestone reports.

Challenges to the position

IDO views – will take time to settle in, and understand the requirements of the position from the various bodies involved.

PG suggested as JT is unavailable then to use KL & KB as best qualified to explain the strategic plan in detail.

Report on the project milestones required by next meeting.

There being no further business, the meeting was adjourned at 5.25 pm

Next meeting to be arranged for Dec/Jan

Murray Valley Citrus Industry Development Officer and CITTgroup Co-ordinator Steering Committee Committee Meeting

Tuesday 9th May 4.00pm

MVCB Boardroom

Present:

Tony Filippi; Colin Nankivell; Ken Bevington; Paula Gordon; Keith Leamon; Rob Mansell and Lee Byrne ACG invited guest

Apology:

Ian Thornton and Jeff Milne

Notice of resignation from Jeff Milne accepted, agreed not to be replaced at this stage.

Minutes PG noted date should be on initial page

KB question on insurance; LB looked at Landcare national group.

Growers are only covered by property owner's liability insurance, is it high enough?

Use Vic DPI OH&S in-house field visit policy

TF to provide a copy by next meeting in next quarter.

Accepted as read from last meeting.

Evaluation of projects:

Look at the beginning to construct sufficient evidence to provide convincing reports.

LB CITTgroup explained the workings of evaluations

Strategic report from HAL has it

KL & PG to assist with evaluation of projects

Workplan with activities and timeline

RM distribute to all board members actioned

Minutes passed

RM activities of topics and the outcomes, issues to seek feedback from board group.

LB CITTgroup and IDO are separate roles

KB & PG keep CITTgroup activities together and put into the report evaluation

follow up with phone call to see if adoption has been made. Impact is then measured, if not adopted identify why?

KB annual citrus field days should be held again, opportunities for boards to fly their flags.

RM need to look at the topics and relate it to the timing of the year to conduct the field days

KB good for industry relations to different regions
Make it part of CITTgroup co-ordinators

PG, RM, KL media look at timing follow up with extra backup, Citnews Board newsletter

KB Nigel Steele report about IDO contract; HAL recommendations
PG industry needs to review project - needs to respond with a good well developed argument

LB citrus IDO have more contact with the national body
PG make sure HAL knows about the positives about our industry
Before taking action need to find direction from National CITTgroup and Hal implementation plan

PG report does not value the contribution of IDO to citrus

LB data from reviews of evaluation over IDO project to construct the argument

KL 2003 survey. Find out where growers find their information from
Use Kym T. as Vitor group example
Use packers to have growers come together align it with packer issues with growers

RM contact group in next month to organize meeting for August

PG report using email from group to remain and maintain contact

Action plan for HAL – timeframe.

Next meeting – to be confirmed

Minutes of the Murray Valley Citrus Industry Development Officer
and CITTgroup Co-ordinator Steering Committee
Conducted Friday 22 September 3.30 pm
Murray Valley Citrus Board office, 58 Pine Avenue Mildura

Present

Paula Gordon, John Tesoriero, Colin Nankivell, Ken Bevington, Ian Thornton, Craig Thornton, Greg Chislett.

Apologies

Keith Leamon

Absentees

Mick Hollingworth, Rob Mansell

Welcome

Meeting opened at 3.30 pm by Chairman John Tesoriero, who welcomed committee.

Business/Actions from previous meeting

Business arising from previous meeting

Insurance for field visits involving growers visiting properties.

No insurance can be taken out by MVCB to cover grower and visitors it is the responsibility of the hostgrower i.e. \$10M public liability.

IDO has adopted a risk safety assessment pre visit inspection to minimize risk safety to visitors.

CITTgroup

Milestone Reports

Have submitted milestones 2 (December 05) & 3 (June 06)

Continue using the format used in these reports and still include the criteria stated in the project milestones but also include any further activity conducted during this period to include at the end of the project in 2008

Milestone 4 due December 06

Investigate HAL policy on EMS and QA systems to satisfy criteria 2 in this milestone.

Look at Euro-gap and Food Safety programs generated at of market access protocols.

First define the different levels of systems available to citrus growers and the minimum of what citrus requires for marketplace – investigate the 12 principles of Codex.

Packing shed requirements and growers motivation to adopt it.

Take the minimalist approach is the focus so all growers can meet standards and satisfy market protocols.

Our role is that growers are aware of what is required for farming practices.

Activity Reports

Activity reports were taken as read.

CITTgroup attendance has been extremely pleasing for this half of the year with no other comments being made.

Planning

Oct 06	Pest Awareness workshops
	24DP session chemical fruit enhancement
	Spray day Research to practice using vine industry type presentation as model to use. Do a one to one explanation about getting the most out of the unit they have using a researcher i.e. Geoff Furness
Late November	End of season review of USA export program
	FRW Orchard Management Protocol
Early December	Benchmarking workshop (stage 1 of project delivering finding to industry)
Mid December	GA application
March 07	Degreening workshop, suggested by committee to survey packers to see if it is required, this issue is not totally focused to the grower

CITTgroup Co-ordinators meeting

The last co-ordinators meeting was held in Griffiths on 6/7 June 2006.

Main topics discussed:

How to better facilitate grower's reasons to embrace practice change

Utilizing regional and national budgets – possible to use on an international speaker on crop regulation for navels and valencias.

National evaluation of CITTgroups project

Discussion on strategic review of IDO in horticulture

Dealing with consultants in a balanced way to avoid biased pedaling of products

Revisit the possibility of Tristate Field Days in the future.

IDO Activities

Leadership project – Impact on Citrus

Another application on funding still awaiting HAL to clear, 15 applicants waiting, have an open call for people to register if they wish to be part of the course. Will commence as soon as HAL gives the green light and Leading Industries can provide the course.

OH&S Horticultural Manual Guide

Entering the final stages of the project, expected timeline as follows

To printer for layout and design

September 26,

2006

Proof for final proof-reading by editorial team

October 26, 2006

To print

October 31, 2006

Finished product

November 24,

2006

Launch

December/January

Chemical Risk Management Project – Vic DPI

Jo Robinson Vic DPI collecting almost the entire last of the samples

Last few are still to be harvested will collect in next few weeks

Grower interviews will now be conducted to investigate chemical use on farm

Results of the project will be released in 2007 and is strictly confidential with residue results only published in industry format.

IDO Extension Meetings

Only for the Murray Valley region, valuable meetings held every month to inform each other of happenings and to avoid doubling up of workshops being conducted in the area.

Media

The 'On the Grapevine' articles have been continuing for the Sunraysia Daily on a monthly basis.

Regular articles have been published in the Citrep magazine over the past year with at least 3 articles contributed by the IDO

Citnews continues to receive encouraging feedback being included in the Sunraysia Daily each week and mailed out with the weekly Market report.

Other Business

a. Meeting dates for 2007

To assist with committee members being able to plan for meetings it was agreed to conduct meetings on a Friday afternoon during the months of January, April, July and October for 2007.

Steering Committee Positions

With the resignation of Jeff Milne, corporate grower representative, Craig Thornton was invited by IDO to be on the Steering Committee to have the same representation, which he has accepted

Invite Michael Crisera, Fruit Doctors on the IDO Steering Committee to provide input from a P&D scout view.

General business

Need to define the specific roles to all members of the IDO Steering and Best Practice Committees so as the focus is not interfering with each other's purpose.

Should consider in future having more grower representation on these committees to provide clear direction on projects growers are really seeking answers to.

Invite Justin McPhee, Wingara, to be on the MVCB Best Practice Committee as he is a member of the Riverlink Board

There being no further business, the meeting was adjourned at 5.15 pm.

**Minutes of the Murray Valley Citrus Industry Development
Officer and CITTgroup Co-ordinator Steering Committee**

Conducted Friday 16 March 9.15 am

Murray Valley Citrus Board office, 58 Pine Avenue Mildura

Present

Keith Leamon Ken Bevington, Ian Thornton, Craig Thornton, Michael Crisera,
Tony Filippi

Apologies

Paula Gordon, Colin Nankivell, John Tesoriero, Greg Chislett, Rob Mansell.

Absentees

Mick Hollingworth

Welcome

Meeting opened at 9.15 am by Acting Chairman Tony Filippi, who welcomed committee and newly appointed member Michael Crisera..

Business/Actions from previous meeting

Insurance for field visits involving growers visiting properties.

KL asked how many growers had actually \$10M public liability insurance cover

CT commented if IDO was using the adopted risk safety assessment pre visit inspection procedure

TF replied he only knew of growers where field sessions were held and the grower willing to reveal their level of cover, and that the check sheet for risk assessment had worked quite well so far.

Decision; It was recommended to continue the current regime as it was the only risk based management system available.

IDO Reports

Milestone Reports

IDO advised milestone reports have been submitted Milestone 4 December 06)

Content of reports as required by HAL was noted. Maintaining adequate records for our own planning purposes was also discussed

Points discussed included

IDO gave a brief overview of all the activities carried out during the July 06 to December 06, see attached milestone report.

Interest was expressed at the level of Citrus Gall Wasp and an update on this issue was given by the IDO and the trial of Confidor Guard® as possible measure of control.

Activity reports were taken as read.

CITTgroup attendance has been extremely pleasing for this half of the year for most sessions especially water restriction workshops

Planning

Plan submitted to ACG for the CITTgroup project milestone a number of options are presented

Month	Activity	Area	Industry Priority
March	Field walks- results of Corasil trials across 3 regions Export market protocols Snail accreditations	Nangiloc, Dareton & Barham	Production Market development, Production and Supply and demand
April	Copper applications / Harvest preparation Crop forecast release and Pre season Export market meetings South African technical visitors	Nangiloc, Dareton & Barham	Production Supply and demand Production
May	Chemical Residue – Risk management VPMP release DPI Vic 'Citrus growers looking to convert to drip irrigation' Coping with the water restrictions	Nangiloc, Dareton & Barham Dareton DPI & Irymple DPI All	Quality Assurance Production
June	Food safety Program updates Interpreting Packhouse return notices Citrus Phenology and Pruning	Nangiloc, Dareton & Barham All	Quality and Safety Market Development Production
July	Ralex for flower manipulation Farmbis training program 'educating producers about the supply chain'	Nangiloc, Dareton & Barham	Production Supply and demand
August	Pest control options – how do they work and when should you apply them? Nutrition and Fertigation	Nangiloc, Dareton & Barham	Production
Month	Activity	Area	Industry Priority
September	Varietal research, top-working, budding demonstration	Nangiloc, Dareton & Barham	Production
October	Pest Awareness Coping with the water restrictions	All	Production and Quality
November	Pest Awareness Crop Regulation	All	Production and Communication
December	DNE end of season review	MVCB Boardroom	Supply and demand
January 08	Benchmark project Tissue testing & Interpretation	MVCB room Nangiloc,	Production

		Dareton	
February 08	'Grower requirements when registering citrus for export'	Nangiloc, Dareton & Barham	Market development

Decision: It was agreed that
the plan was quite detailed and extensive but it was stated that it does not take priority over

IDO Activities

Leadership project – Impact on Citrus

The second project has commenced and is due to be finalized in May when participants' projects are to be presented. The time of the year needs to be explored as there were many participants willing to take part but were restricted by other commitments during vine harvest.

IDO made the comment that this program has stimulated interest back into the MVCB and has been a very much worthwhile investment.

Crop forecasting

Have successfully introduced the use of PDA's to collect data in the field and to download efficiently. A program has also been developed to include blemish based on the Riversun protocol. It will be presented to the Board on the 21st of March and following their decision released to industry.

OH&S Horticultural Manual Guide

IDO advised that the manual has reached the printing stage, but now there is a dispute between Workcover and University of Ballarat (project co-ordinator) as to who owns the copyright.

Farmbis TII project - "Developing a training package for growers about the supply chain"

Brief overview of this project was given as to the aim of how to improve grower knowledge post farm gate so they are more likely to change practices over what they control in the orchard to improve their bottom line.

Draft report of project attached.

Chemical Risk Management Project – Vic DPI

. Draft report will be released to MVCB by mid next week.

The report has highlighted some potential violations for export markets and the follow up in packing sheds has revealed Controlled Droplet Application (CDA) for applying products of decay control, although the chemical is registered the method of application is not

IDO noted that Vic DPI will forward to MVCB and ACG a letter to APVMA which in turn will provide pressure on the chemical companies concerned to apply for registration of this method.

IDO Extension Meetings

IDO advised that these meetings were held monthly for the Murray Valley region, to inform people working in extension from a number of agencies of planned events and to avoid doubling up of workshops being conducted in the area. Participants

include MV Wine grapes, NSW DPI, Vic DPI and ADFA. The meetings with this group has been the basis for water workshops being co-ordinated on the Victorian side of the Murray.

Water workshops are planned for April in Irymple, Nangiloc and Tooleybuc on the 17th and 18th of April

FRW project

Project submitted to HAL late last year to enable citrus to meet phytosanitary requirements for market access into China. HAL do not look like funding it. Will be meeting with Minister McGauran on Monday 19th to seek direct Government assistance for this project. Construction of an up to date supporting brief currently being put together.

Media

The 'On the Grapevine' articles have been continuing for the Sunraysia Daily on a monthly basis.

Regular articles have been published in the Citrep magazine over the past year with at least 3 articles contributed by the IDO

Have provided articles for the National magazine CAN about frost, water and FRW

Citnews continues to be included in the Sunraysia Daily each week and mailed out with either the weekly Market report or by itself during out of season.

The basis of these articles are on current issues that are or should gain the attention of growers

Other Business

a. Meeting dates for 2007

Decision: due to no appointed successor for the IDO position it was agreed by all present it was best to wait until the new IDO had time to settle in and conduct the meeting post July 2007

IDO to set proposed dates for 2007 and advise members for their diaries

Steering Committee Positions

With the imminent retirement of Ian Thornton from MFC, he felt it was appropriate to resign from the steering committee at this meeting to provide sufficient time to seek a replacement before the next meeting later in the year.

IDO Tony Filippi also announced he was resigning from the MFCB to take up a position with the MFC within the Growers services role.

Comment: All present thanked Ian for his strong contribution whilst serving on this committee and wished him good fortune in his retirement.

TF thanked committee for their support and looked forward to maintaining the relationships in some manner into the future. Members present also thanked TF for his commitment and service and stated he would be missed.

Decision: Keith Leamon raised the question as to a likely replacement and TF replied that the position has been advertised and there have been CV's submitted and that nothing was going to occur until John Tesoriero returned from his operation at the end of the month.

8. General business

8.1 Snail Accreditation for USA market

IDO has been active in pursuing refresher accreditation for assessors as standards may have fallen over recent seasons and given the importance of the market vital something be done.

Have referred this onto Riversun who are currently meeting for quality assessments to the USA and will pass on a decision in the near future

8.2 IDO Evaluation

The IDO project evaluation

No further action has been taken at this stage, but TF has offered to become a member on this committee from industry perspective

There being no further business, the meeting was adjourned at 11.15 am.

NEXT MEETING: TBA

**MURRAY VALLEY CITRUS INDUSTRY DEVELOPMENT OFFICER
AND CITTGROUP CO-ORDINATOR STEERING COMMITTEE MEETING**

**Minutes of Meeting held on Thursday, 12 July, 2007 at MVCB, 58 Pine Avenue,
Mildura at 3.30 pm**

1. PRESENT

J. Tesoriero, K. Leamon, C. Nankivell, K. Bevington, P. Gordon, M. Cannard,
R. Mansell

In attendance: M. Tobin

APOLOGIES: M. Hollingworth, G. Chislett. C. Thornton on leave.

2. COMMITTEE MEMBERSHIP

It was proposed that Committee membership for the future be looked at carefully.

Discussion followed about membership and establishment of a role description, noting that a skills base also should be considered.

ACTION J. TESORIERO: Pursue Committee membership

3. INTRODUCTION OF NEW INDUSTRY DEVELOPMENT OFFICER

John Tesoriero introduced Mary Cannard to the meeting. Mary outlined her educational and employment background. She indicated that she had been very well occupied in her first four days with the Board and was meeting with the previous IDO, Tony Filippi, next day.

4. MINUTES OF PREVIOUS MEETING

Further to clarification of the decision in item 4, the Minutes of the previous meeting held on Friday, 16 March 2007 were (taken as) read and accepted.

MOVED: K. Bevington

SECONDED: K. Leamon

MOTION CARRIED.

5. BUSINESS ARISING FROM THE MINUTES

IDO/CITTgroup Evaluation (item 4)

The importance of collating information was noted, this for our own planning as well as satisfying HAL (who funded the program) that it is in fact delivering what we say that it is.

7. MILESTONE REPORT NO. 5

A draft report had been prepared for Committee endorsement.

John addressed the draft Milestone Report No. 5. The following minor changes were proposed:

Take out first paragraph

Second paragraph – nominate a date for delivery

Note discussion with irrigation authorities and put date in.

At the back of the report include anything that may have impacted on the milestone report, eg change of staff, water storage, drought, frost.

A question was asked whether the delay in this milestone would impact on future milestones and it was proposed to refer this to HAL.

Keith Leamon noted that DPI Victoria used a template which only included the questions which needed to be asked. Ken Bevington also noted DPI NSW template.

ACTION K. LEAMON: Email copy of template used by DPI.

It was noted that an irrigation record keeping template for growers was under development and would include a date.

6. IDO AND CITTGROUP ACTIVITY

6.1 John noted that the OH&S Manuals were now available. Discussion followed about how they would be distributed.

ACTION J. TESORIERO: Discuss with John Hawtin distribution of OH&S manual.

Mary suggested that a couple of A4 sheets be left with growers to noted what problems they encounter.

It was agreed that we could help our growers by having a CITTgroup meeting on a property with the manual available for dissemination and a hands-on demonstration of the content.

ACTION M. CANNARD: Arrange a CITTgroup meeting on-farm to introduce the OH&S manual with hands-on demonstrations.

It was noted that attendances had been very good at the last three CITTgroups, the issue of water being popular, as were new citrus varieties.

6.2 Drought Management Plan

It was noted that a drought management plan meeting for early August had been planned via Steven Falivene.

7. INTRODUCTION PROGRAM FOR NEW IDO

P. Gordon proposed that an introduction program for Mary Cannard include:

- Business cards
- Letters of introduction
- Introduction to media
- Etc.

It was noted that Mary's work plan would be developed around the MVCB strategic plan and milestones as well as those of CITTgroups.

8. WATER ISSUES

It was further proposed that Mary meet Jeremy Giddings, DPI NSW and Stuart Putland, DPI Victoria at Irymple with regard water issues.

John advised that in NSW critical water needs had been met including citrus production and packing sheds and nurseries. The basis for allocating this water was determined on advice from DPI NSW depending on irrigation type and bearing and non bearing hectares. No water was allocated to furrow irrigation during July.

It was suggested that the Board be careful about making judgements about furrow irrigation, however, when all was considered, drip irrigation was a better way to go. Drippers had disadvantages in some instances, however.

In response to a query as to how the Board had addressed the water situation financially, the meeting was advised that it was “business as usual”. If, however, the industry went “pear-shaped”, the operational plan would be revisited. There were contingency plans in place, as well, reserves would keep the Board buoyant for 12 months.

Keith Leamon advised that contingency plans had been developed by relevant departments and water authorities to address worst case scenarios, and proposed that it may be worthwhile for the Board to be briefed by key agencies as to what their contingency plans were.

ACTION J. TESORIERO: Discuss their contingency plans with Owen Russell (Lower Murray Water), Stuart Putland (DPI Victoria).

Following discussion, it was recommended that consideration be given by MVCB to a suitable speaker/s addressing the Board on water issues.

Confusion between relevant departments regarding water was noted, with a recent ministerial announcement yet to filter down to departments.

9. NEXT MEETING

Early December 2007

10. MEETING CLOSURE

MURRAY VALLEY BEST PRACTICE COMMITTEE MEETING

Minutes of Meeting held on Friday, 10 October, 2008 at MVCB, 58 Pine Avenue, Mildura at 9:00 am

1. PRESENT

J. Tesoriero, J. Denham, J. Giddings, T. Radloff, P. Gordon, M. Cannard,

In attendance: Ross Skinner

APOLOGIES: Nil

2. HAL RESEACH OVERVIEW AND PRIORITIES

John Tesoriero introduced Ross Skinner and he proceeded to give the committee an overview of HAL operations, HAL Program Planning Calendar and research priorities.

A general discussion on research funding followed.

3. IDO STEERING COMMITTEE MEMBERSHIP

John Tesoriero noted that Keith Learmon has been approached to be on the IDO steering committee and has accepted.

He also suggested that Michael Treeby be approached as an external committee member. All agreed.

4. COMBINING PEST PRACTICE COMMITTEE AND IDO COMMITTEE

John Tesoriero suggested combining the Best Practice Committee and the IDO Steering Committee.

Paula Gordon and Tony Filippi noted that it may be a requirement of the IDO project to have IDO Steering Committee

John Tesoriero noted that external IDO committee members would bring technical expertise to the Best Practice Committee.

General discussion followed on terms of reference for both committees.

Jan Denham suggested that technical expertise is needed on both committees, therefore, they could act as one.

All agreed.

5. IDO/CITTGROUP EVALUATION

The importance of collecting collating information on changing farm practices was noted by Jeremy Giddings, ie Monitor, Evaluate and Report

John Tesoriero noted that the previous evaluation could be used as a model

General discussion on evaluation process for HAL reporting.

Paula Gordon and Tony Filippi noted that work had been done previously on quantifying and demonstration change for our own planning as well as satisfying HAL (who funded the program) that it is in fact delivering what we say it is.

Tony Filippi to find the previous work and distribute.

6. MEETING CLOSURE

The meeting closed at 11.15 am.

Murray Valley Citrus Industry Development Officer and Cittgroup Co-ordinator Steering Committee/Best Practice Committee

**Minutes of the Committee Meeting held Thursday, 12 February 2009
in the MVCB Boardroom at 8.30 am**

PRESENT: Jeremy Giddings, Tony Filippi, Jan Denham, Trevor Radloff (in the Chair), Paula Gordon, Michael Treeby, John Tesoriero, Mary Cannard and Sam Chesson.

IN ATTENDANCE: Marian Tobin, Minute Taker.

APOLOGIES: Keith Leamon, Gina Petrascu

WELCOME

Trevor Radloff opened the meeting at 8.40 am and welcomed all present with particular mention of Michael Treeby attending his first meeting.

MINUTES OF THE PREVIOUS MEETING

The Minutes of the Previous Meeting of 10 December 2008 were (taken as) read and confirmed. P. Gordon/J. Denham

GENERAL BUSINESS

4.1 Evaluation of IDO role

Tony Filippi spoke to the background of the evaluation process which had been commenced in 2007 noting that it was important that methods of evaluating projects as well as the IDO role were undertaken.

Paula Gordon also commented on trying to be ahead of HAL's requirements, how we evaluate against given outcomes and how to measure against the last submission.

John Tesoriero commented on his discussion with Jenny Treeby, DPI and their involvement with the ADFA evaluation with the almond industry being next on their list.

The following were noted:

Concerns that IDOs in some industries were also acting as secretary and undertaking other duties outside their IDO role.

MVCB had made a commitment to continue their IDO role.

MVCB had not been asked to contribute to the Industry Development Review at this stage.

Richard de Vos had been engaged by ADFA to undertake their review.

Each of the peak bodies was undertaking an Industry Development needs assessment.

The last evaluation review of industry would be a good reference.

May well not effect our IDO but may effect who she reports to.

Measurements were required to demonstrate performance against each of the milestones.

It was proposed that the evaluation group of Paula, Tony, Mary, Michael and Keith develop a framework for the evaluation noting that \$10,000 was available to engage an independent person to undertake the evaluation and prepare an application for the next three years.

Recommendation: The evaluation sub committee convene, develop the information presently available and appoint a consultant to undertake the evaluation and build an application for the next three years.

Means of evaluation were discussed, noting:

Intent only was available for measurement, not uptake of proposed practices.
The possibility of questions on annual grower surveys about practices, eg irrigation etc.
Targetting of specific, categorized growers, eg from CITTgroup attendances.
The majority of the communication undertaken would be via CITTgroups.

The previous evaluation process was discussed, it was reiterated that it was not practical to go around approx. 500 individual growers.

It was noted that the above “means of evaluation” could be incorporated into the MVCB Strategic Plan.

Recommendations:

With the \$10,000 available and following preparation of a brief by the sub committee, engage a consultant, after getting two quotes, to develop an IDO evaluation and application for submission to HAL.

The Sub committee to convene and prepare a brief for the consultant.

Mary Cannard to convene the working group.

Michael Treeby expressed concerns about using the present document to “fit” a new scenario; as the outcomes are already set, the measurement of how these are achieved is more complicated. Areas which cannot be measured should be deleted.

4.2 Advanced Leadership Course Content

John Tesoriero advised that at the last Board meeting it was agreed that an advanced Leadership Course be explored as DPI had undertaken a recent Leadership Course across the horticulture industry and MVCB had already conducted two such courses over the past three years. With that in mind, there had been discussion with Cheryl Phillips of Leading Industries about an advanced, add-on course to hone the skills of those who had already undertaken such a course. Content could include meeting with HAL in Sydney, meeting with Ministers in Canberra and meeting with high level industry people and organizing an industry delegation. He noted that funding had already been approved for the next three years and that Ross Skinner of HAL had advised that content could be changed under present funding arrangements. The viability of such an advanced course was being investigated.

The need for a screening process for inclusion in an advanced leadership course was discussed.

Tony Filippi suggested that the course content challenge participants aimed at improving their personal development.

Jan Denham noted a letter from Lin Baddock, Focus Consulting about courses for women with grants of up to \$50,000 from DAFF.

Recommendation: John Tesoriero to continue to investigate the need for an advanced leadership course.

4.3 Development of Variety Releases Project

The briefing paper developed by Tony Filippi was distributed.

Tony noted that he was constantly asked by growers what they should be planting. He proposed a complete supply chain evaluation of any new variety rather than a once a year day with growers; wholesalers and retailers had to be sold on the new product in the first instance.

It was noted that Graeme Sanderson from DPI NSW continuously sent cases of fruit to the market for evaluation. Jeremy advised that Graeme would be happy to make a presentation to the Board.

Recommendation: Graeme Sanderson be invited to the next Board meeting to advise about development, evaluation and marketing of new varieties.

Michael Treeby noted that evaluation could sometimes take years and there were many fruits being developed that Graeme was not at liberty to even discuss publicly. There was, however, a lot more happening than people realized.

Discussion followed on what were the tools to help make a decision about what varieties to plant, and developing basic advice to growers on what not to do in order to ensure that growers were not taking all the risks.

Recommendation: a varieties information day be developed via CITTgroups.

4.4 Consideration of Victorian Producer on the Best Practice/IDO Committee

Trevor put the question as to whether a Victorian producer would be helpful on the Committee to which there was agreement. It was noted that this could be done by either calling for expressions of interest via newsletter, or by personal contact.

Names suggested included Craig Thornton or Justin McPhee from Wingara; Robert Mansell; Glen Goldup.

Recommendation: That Glen Goldup be approached initially by Mary to join the Best Practice/IDO Sub Committee.

4.5 Fuller's Rose Weevil (FRW) Project Update

Trevor noted that a FRW Project Researchers meeting was held on Tuesday, February 10. P. Crisp from SARDI chaired the meeting and representatives from all three southern regional Boards were in attendance.

FRW preventative measures being undertaken were discussed including numbers and persistence of trunk sprays; suggestion of using an air blaster; banding which should start in August and be addressed every three weeks.

In this second year of the research project, it was felt that some viable practices, eg timing of banding, trunk spraying according to cycle should be introduced together with a recommendation for field practices.

It was noted:

Mildura Fruit Company was not attempting to send any fruit to China this year because of the risk.

An option for growers could be to target one part of their orchard only and this fruit be marketed to China, rather than treating the whole orchard, fruit from which would not all be marketed to China anyway.

It had been suggested to Peter Crisp that some trials be conducted in Sunraysia as well as in SA.

4.6 Overview of research proposal for drought tolerant citrus

Michael Treeby advised that peak flowering had advanced 19 hours every year since 1992 – whether this was due to climate change or not was debatable - however the future could well be a lot hotter and a lot dryer. It was found that the difference in the incidence of peak burn is from nil to 60%; and the ability of fruit to stand those temperatures bears no relation to how the leaves stand up.

Research was being undertaken on genotypes and what makes the difference to thermotolerance. Many areas of the world grow citrus in much hotter conditions, eg Pakistan, and there are genotypes that we don't know about.

Jeremy Giddings commented on Mark Skews model of what people have done during the drought and utilizing his modeling for citrus - period under stress,

period for flush, essentially how much water was lost but how much carbon was gained. This had never been applied to citrus. There was a need to identify more water efficient genotypes.

It was noted that:

There was strong competition for research and a need for industry support (for use of DAFF money).

As the climate changes we may not have the answers unless urgent research is undertaken.

The remaining research centres were Loxton, Dareton and Irymple (which had good analytical capability but not a lot of citrus experience), important to maintain critical mass, the government could shut any down at any time.

Money was tight and getting tighter.

Recommendation: That the Board write a letter of support for citrus research of evaluation of more water efficient genotypes to DAFF noting that timing is critical.

4.7 Closure of CSIRO Merbein update

John Tesoriero advised that a meeting was held on 16 January with horticulture commodity groups and other interested parties. CSIRO is providing \$20,000 towards a Feasibility Study with many of the parties present agreeing to provide \$5,000 each.

It was hopeful that options would come from the Feasibility Study but this may not necessarily be the case. HAL would be the body which undertakes the tendering process. It is expected that an approach to consultants to develop the Feasibility Study would be made in the next couple of weeks.

John advised that CSIRO are pulling out staff gradually over the next 20 months. Although wine research work will continue in Adelaide, citrus, vine and other horticultural research will cease. This is inconsistent with the Productivity Commission's recommendation that there needed to be more investment in research and development.

Commodity groups were being asked by CSIRO to fund the shortfall in operating expenses of \$1.8 million per annum. This was unacceptable.

The possibility of establishing a Horticulture Centre of Excellence in addition to a research facility could provide economies of scale.

4.8 Strategic Planning for Project Direction

Trevor recommended that members keep in mind any project matter that could feed into the MVCB strategic plan.

5. ANY OTHER BUSINESS.

6.

NEXT MEETING

Best Practice/IDO Steering Committee - Monday, 27 April at 8.30 am.
Evaluation Sub Committee - 4 March at 4 pm.

Murray Valley Citrus Industry Development Officer and Cittgroup Co-ordinator Steering Committee/Best Practice Committee

**Minutes of the Committee Meeting held Thursday, 27 April 2009
in the MVCB Boardroom at 4:00 pm**

PRESENT: Jeremy Giddings, Tony Filippi, Jan Denham, Trevor Radloff (in the Chair), Michael Treeby, John Tesoriero, Mary Cannard, Glen Goldup and Sam Chesson.

APOLOGIES: Keith Leamon, Gina Petrascu, Paula Gordon

WELCOME

Trevor Radloff opened the meeting at 4:05pm and welcomed all present with particular mention of Glen Goldup attending his first meeting.

MINUTES OF THE PREVIOUS MEETING

The Minutes of the Previous Meeting of 12 February 2009 were (taken as) read and confirmed.

BUSINESS ARISING FROM THE LAST MEETING

4.1 IDO Evaluation

Stephen Kelly appointed as consultant to conduct the IDO Evaluation. IDO Project has been extended to 30th September 2009, therefore, the evaluation process has also been extended.

4.2 Industry Development Needs Assessment

Richard DeVos advises that the Riverina meeting will be 28th April, he will then contact individual growers and other stakeholder for their input. He will also distribute a survey to citrus producers Australia wide. He will make the draft report available to MVCB before the final report goes to HAL.

4.3 Variety Releases Project

Graeme Sanderson presented information at the last board meeting and Mary has run a CITTgroup at Barham on new varieties. Graeme will also be talking about new varieties at the Citrus Field Day on 2nd June.

4.4 Fullers Rose Weevil Project

Tony Filippi spoke about encouraging Peter Crisp to undertake trials in the Sunraysia area.

4.5 Michael Treeby's Climate Change Project

Michael advised that his proposal was rejected in this round. Trevor Radloff asked could he select a small component of the research and apply for other funding. Michael indicated that he is seeking other funding for the whole project and may be able to find funding for a small component.

GENERAL BUSINESS

5.1 Evaluation of IDO role

Stephen Kelly appointed as consultant to conduct the IDO Evaluation. IDO Project has been extended to 30th September 2009, therefore, the evaluation process has also been extended.

5.2 Grower Field Day

A research field walk and BBQ breakfast has been organized for 2 June 2009 to showcase current citrus research. Field walk will include:

- Latest results from Chinese rootstock evaluation trials
- C35 and C32 citrange rootstock viewing
- Navel variety trial - walk through and discussion
- New public access citrus varieties – Sidi Aissa and Orogrande clementines, Primosole mandarin, Bintangcheng processing orange
- Site redevelopment to establish long-term fertigation trial
- Pulse versus continuous and conventional drip irrigation management

IDO Extension Milestones

The IDO project has been extended to 30 September, 2009 to allow for the Industry Needs assessment to be finalized. New milestones have been identified and sent to HAL.

Project Proposal – Steven Falivene

A project proposal was submitted by Steven Falivene. The project proposed to assess the performance of key production enhancing products and techniques by conducting numerous replicated on-farm trials throughout the district managed by a project officer. Products would include potassium nitrate fruit size spray, winter urea and phosphonate spray, Twin N, kaolin clay spray, Brotomax etc. Most of these techniques and products are from overseas and little is known of their performance and cost effectiveness under local conditions.

Michael Treeby advised that it may be difficult to assess what would be the industry norm to act as a control as local growers used different fertilizer regimes in their production. As this trial would produce regionally relevant data and cost effectiveness of the products it was agreed that MVCB would fund the project.

Advanced Leadership Course

Mary Cannard advised that two consultants had been approached to develop a proposal for an advanced leadership course.

6. Next Meeting – to be advised.

Murray Valley Citrus Industry Development Officer and CITTgroup Co-ordinator Steering Committee/Best Practice Committee

Minutes of the Committee Meeting held Thursday, 22 September 2009
in the MVCB Boardroom at 3:00 pm

PRESENT: Jeremy Giddings, Jan Denham, Hugh Flett, Trevor Radloff (in the Chair),
Michael Treeby, John Tesoriero, Mary Cannard, Glen Goldup, Gina Petrascu and
Sam Chesson

APOLOGIES: Keith Leamon, Gina Petrascu, Paula Gordon

WELCOME

Trevor Radloff opened the meeting at 3:05pm and welcomed new Chief
Executive Hugh Flett to his first meeting.

MINUTES OF THE PREVIOUS MEETING

The Minutes of the Previous Meeting of 27 April 2009 were (taken as) read
and confirmed.

BUSINESS ARISING FROM THE LAST MEETING

4.1 IDO Evaluation

Stephen Kelly presented his draft report (attached) for the Evaluation of the IDO role.
The draft report took into consideration the findings from a focus group of 7 growers
that regularly attend CITTgroup meetings as well as interviews with 4 growers who
do not regularly attend CITTgroup meetings. Information for his draft report was also
gleaned from the IDO project Milestone reports, CITTgroup evaluation reports and
relevant statistics. A copy of his report has been sent to all Steering Committee
members.

Action: Mary to find out the timing for a new project application to Horticulture
Australia.

4.2 Questionnaire for Potential Citrus Growers

Due to the downturn in the winegrape industry Trevor Radloff suggested that the
Board develop a simple questionnaire for potential new growers to ensure they have
done their research before planting citrus. General discussion on what to include
followed. Possible topics to include:

- Soil depth and suitability
- Water requirements and availability
- Variety research – public and private
- Market research
- Labour requirements
- Tree availability
- Access to citrus benchmarking data
- Access to Capital

Financial/Banker support

Action: Trevor and Mary to develop questionnaire to circulate to Steering Committee members for comment.

4.3 Greeneye Farm Ready Application

MVCB had been approached by Greeneye to be a partner in an application for funding from Farm Ready to run Water Trading courses for horticultural producers in the Murray Valley. The course has been developed by the Greeneye people but they need an industry organisation to obtain the funding from Farm Ready.

General discussion on the course content and objectives followed. All members agreed that the information was already offered by industry through the water outlook session being run by the IDO/Extension network.

Action: Mary to contact Brad Georges from Greeneye to decline their invitation to be a partner in their Farm Ready application.

4.4 IDO Extension and new application

The IDO project has been extended twice (to September 30) while waiting for the report from IDO needs assessment being undertaken by Richard De Vos. His report will be recommending a new model for IDO projects. The Murray Valley IDO will remain with the Board under a VC/HAL funded project. Further extensions are likely to occur.

Action: Trevor and Jan to talk to CAL in regards to the timing of a new application for HAL/VC funding for the IDO position.

Update: Richard Stevens, Industry Development Manager for Horticulture Australia, has advised that the MV IDO project has been extended until 31 December 2009. A milestone report up until September 30 will be sent to him. The final report is now due on 31 December 2009. Stephen Kelly has been advised of the extension.

4.5 Advanced Leadership Course

Cheryl Phillips has declined to submit a proposal for the advanced leadership course, therefore, Diane Morgan has been approached to submit a proposal for the advanced leadership course.

UPDATE: Carol Clarke a consultant from Melbourne who also runs leadership courses has also been asked to submit a proposal. Both proposals will be distributed to steering committee members when received.

4.6 Irrigation Australia Conference

General discussion in regards to the attendance of the IDO at the Irrigation Australia Conference in Swan Hill. It was agreed that the IDO review the conference agenda and pick one day to attend.

UPDATE: IDO will be attending the Irrigation Australia Conference on Tuesday 20th October.

4.7 Fullers Rose Weevil project update

Due to the presence of Chile in the USA market this year's returns to growers have decreased. Opening up the Korean and China market would help this situation, but the unworkable protocol in regards to Fullers Rose Weevil (FRW) keeps these markets closed to our fruit. The FRW project is looking at ways to enable growers to comply with the orchard freedom from FRW protocol. Project Leader Peter Crisp has supplied an update on progress of butt sprays and a copy of a poster produced for orchard management of FRW.

General discussion on other methods of managing FRW to gain market access, ie
Irradiation – not preferred by Australia due to the Premium price paid for our fruit
Fumigation – Weakens fruit and decreases shelf life.
Packing Shed Freedom – postharvest treatment

4.8 RMCG Project Proposal – Quantifying the impact of low water allocations on the citrus industry

This project was discussed at the last board meeting.

4.9 Food Safety Conference

The IDO's attendance at the Food Safety Conference is required under the IDO project, however, the Annual Australian Citrus conference is on at the same time. Discussion on which Board/Steering Committee member will go to the Food Conference in place of the IDO.

ACTION: Trevor to check with Tony Filippi if he will be attending. If not Trevor may be available to attend.

5. OTHER BUSINESS

No other business.

Next Meeting – to be advised.

Meeting closed at 5.15pm