

Final Report

Facilitating the development of the Australian Strawberry Industry – subtropical regional delivery

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Delivery partner:

Queensland Strawberry Industry Promotions Council (QSIPC)

Project code:

BS15003

Project:

Facilitating the development of the Australian Strawberry Industry – subtropical regional delivery BS15003

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Content

Content	3
Summary	4
Keywords	5
Introduction	5
Methodology	5
Outputs	6
Outcomes	19
Monitoring and evaluation	21
Recommendations	24
Intellectual property, commercialisation and confidentiality	26
Appendices	27

Summary

During development of the current Strawberry Strategic Investment Plan 2017 – 2020, it was noted that a critical issue for industry was industry adoption, characterised by concerns about effective communication. The strategic plan together with identification of research and development needs provided strong justification for a nationally focused development program, with the design and delivery based on the information needs and preferences of growers.

In 2016, a development program was introduced, geared towards improving the knowledge and skills of Australian strawberry growers, facilitating the adoption of innovation and R&D, and supporting practice change to ensure the profitability and sustainability of the industry.

Three investments make up this industry development program:

- *Facilitating the development of the Australian strawberry industry – national oversight and communications* (BS15002)
- *Facilitating the development of the Australian strawberry industry – sub-tropical regional delivery* (BS15003)
- *Facilitating the development of the Australian strawberry industry – temperate regional delivery* (BS15004)

National project BS15002 produces and maintains key industry communication channels, including:

- [The Strawberry Innovation website](#) for industry news and R&D communications
- The quarterly national industry newsletter *Simply Red*
- The monthly national e-newsletter *The Punnet*

The regional delivery projects (BS15003 and BS15004) each feed into this national program and deliver additional activities such as workshops, grower groups, farm walks, field days, study tours, case studies and industry analysis.

The objective of project BS15003 is to enhance the adoption of innovation and technology by growers in the sub-tropical growing regions of Australia, which include Queensland, New South Wales, and the northern growing regions of Western Australia. This objective has been achieved by building and maintaining industry partnerships and networks and delivering regionally specific industry development activities to extend R&D outcomes and facilitate capacity building within the industry.

The sub-tropical region Industry Development Officer (IDO), Jennifer Rowling, delivered a wide variety of activities throughout the course of the three year project. These include:

- Needs analysis
- Development of regional demonstration sites/case studies
- Establishment of grower's groups
- Industry analysis – runner data collection and collation
- Planning and delivering workshops
- Participation in and coordination of field walks/field days
- Organisation of regional study tours
- Industry networking
- Contribution to production of communication material

These activities have resulted in the increased productivity and business capacity of strawberry producers in sub-tropical growing regions of Australia through improvements in business practices and increased awareness of production, R&D and business management information.

Enhanced industry collaboration with a strategic approach based on genuine industry need and engagement has also been achieved as a direct result of this project.

Keywords

Strawberries; Strawberry Industry; Industry Development; IDO; communication; extension; capacity building.

Introduction

An Industry Development project has been in place in Queensland since April 2004, implemented in accordance with the outcomes of an Industry Development Needs Assessment process. Originally funded by the Growcom Strawberry Committee with matching funds from Horticulture Australia Ltd (HAL), the Industry Development Officer (IDO) was funded by Industry Voluntary Contributions (VC) since October 2005, with funds matched by HAL (HAL-BS05007 / BS06009 / BS09004 / BS12015). Similar Industry Development projects were also being undertaken in Victoria and Western Australia.

Through the development of the current strategic investment plan, together with identification of research and development needs of the industry, proposals for a nationally focused program were called for by HIA. In 2016, a national industry development program was introduced, combining three investments to cover national oversight and communications, and regional delivery in sub-tropical and temperate strawberry growing regions across the country. Key research providers for the national industry development project include RMCG, an environmental and agricultural consultancy based in Melbourne - National oversight and communications (BS15002), Queensland Strawberry Industry Promotions Council (QSIPC) – Sub-tropical regional delivery (BS15003), and Victorian Strawberry Industry Development Committee (VSIDC) – Temperate regional delivery.

This combination of three components of the strawberry industry development program, titled “Facilitating the development of the Australian Strawberry Industry”, has significantly contributed towards the improvement of knowledge and skills of Australian strawberry growers, the facilitation of adoption of R&D, technology and innovation, and has supported practice change to enhance the profitability and sustainability of the industry. It has also had a positive influence on bringing the industry together as a national entity, to share information and communicate across state borders for the benefit of all strawberry producers and businesses associated with the industry.

Methodology

With project BS15003 in place, the first six months were focused predominantly on identifying the needs of growers in sub-tropical growing regions, providing input to RMCG for the development of the BS15002 program plan and developing a regional delivery work plan for BS15003 based on the program work plan of BS15002.

An example of the Annual Workplan for Year 3 is contained in Appendix 1.

The first Project Reference Group (PRG) meeting was also held in that time, with participation of the IDO. The PRG is a principal group responsible for providing guidance and information on project direction, plans, outputs and activities. The Group brings together key people with expertise and experience in the strawberry industry.

The scope of the PRG was able to provide input into planning and implementation of the project, including but not limited to:

- Strategic direction for the projects
- Ensuring that the projects meet the needs of the strawberry industry; this includes growers, runner growers, advisors and extension providers and other stakeholders
- Making sure that sound science is used
- Ensuring the projects stay focussed on required outcomes throughout the life of the projects.

The Annual Workplans were fluid but detailed, and covered a wide range of strategies and activities, based on the key SIP strategies:

SIP Strategy 1 – By 2021, per capita domestic consumption of fresh Australian strawberries will increase by 10%, underpinned by consistent supply of premium quality fruit that matches consumer desires.

Activities:

- Prepare regular updates on national issues, runner production, variety trials and industry profiles.

SIP Strategy 2 – By 2021, increase exports of Australian strawberries from 4% to at least 8% of national production by volume, in selected markets with a capacity and willingness to pay a premium for quality fruit.

Activities:

- Facilitate learning from leading growers through ‘stories of success’
- Conduct networking events, regional tours and e-learning.

SIP Strategy 3 – By 2012, the industry will increase farm productivity (marketable yield per hectare) by an average 10%.

Activities:

- Develop and maintain online resource (website) providing information on R&D outcomes.
- Develop information products on innovation and best practice within the strawberry industry
- Prepare regular updates on national issues, runner production, variety trials and industry profiles.
- Facilitate learning from leading growers through stories of success.
- Develop and deliver online resources such as webinars or videos.
- Conduct workshops and field days to increase understanding of new practices and regulatory requirements.
- Conduct networking events and regional tours.
- Establish and facilitate grower groups to encourage learning and practice change.
- Facilitate a community of practice to share ideas, lead change and provide feedback on the efficacy of the program.

SIP Strategy 4 – By 2021, at least 90% of national production and 90% of growers and other firms involved in the strawberry value chain will be directly engaged with and value national industry services.

Activities:

- Prepare regular updates on national issues, runner production, variety trials and industry profiles.
- Undertake industry analysis to enable better planning and development of the Australian strawberry industry.

Outputs

Outputs for this project were developed in conjunction with the national oversight and communications project and the temperate regional delivery project, with input from the Project Reference Group.

Activities

2016 (21st March to 31st December 2016)

2016 Annual Dinner and Awards – Friday, 13th May 2016 - Caloundra Events Centre.

Coordinated and facilitated the annual networking event, which also acknowledges contributions to industry by growers and associates through the Industry Awards.

- ❖ Guests: 253 (56% growers / 44% industry associates)

Information Workshop – 12th July 2016 – DAF Research Station, Applethorpe.

Coordinated, promoted and facilitated workshop covering a range of topics, including soil health, disease and pest management and export. Target audience strawberry growers and industry associates operating in the region. Included networking BBQ post-workshop.

- ❖ Approx. 20 growers and industry associates in attendance

Guest speakers as follows:

- Sam Dunlop (Bugs for Bugs)
Update on growing conditions in the region / current status of season in South East Queensland. Promotion of aerial bug dispersal and how this can benefit growers.
- Michelle Green (Bioactive Soil Solutions)
Functions of certain Bacillus - benefits in Strawberries and all of agriculture.
- Robert Annetts (Dow)
New permit for Transform for the control for aphids.
- Jodie Neal (DAF Breeding program)
Breeding activities for summer production.
- Jason Vella (OCP)
Products and services available to growers, inc. a bee foraging enhancer developed to attract and enhance honey bee pollination.
- Clinton McGrath (DAF)
Export opportunities into UAE, based on recent study tour for the broccoli industry.
- Ron Bollard (Barmac)
Products and services available to growers.
- Jen Rowling (QSGA)
Update on current strawberry industry issues and events.

Local labour hire forums – Various dates/locations

A series of four forums coordinated as part of The Sweetest Job campaign, a collaborative project with Sunshine Coast and Moreton Bay Regional Councils to encourage local employment into the strawberry industry. Significant media coverage received.

- ❖ 500 local job seekers, growers and project collaborators in attendance over the four events.

Plastic Waste Challenge Farm Walk – 31st October, 2016 – Sunray Strawberries, Wamuran.

Farm walk coordinated as a component of Plastic Waste Challenge workshop to view the process involved in lifting and disposing of plastic mulch and trickle tape. Attendees included growers, suppliers, policy makers, machinery manufacturers, waste management service providers and researchers.

- ❖ 30 attendees.
- Refer Appendix 2 – Plastic Waste Challenge Report

2017

QSGA AGM – 6th February 2017 – Caboolture Sports Club

Promotion and organisation of guest speakers for QSGA AGM.

❖ 40 in attendance.

Guest speakers included:

- Brett Jackson, Biosecurity Queensland / Brendan Missenden, DAF
Update on Queensland Fruit Fly incursions in southern States plus overview of current situation. Discussion on control measures and area wide management.
- John Chapman, ASRAA Chairman (presented by Roger Broadley in John's absence)
Update on ASRAA Committee activity and the importance of the work being done.
- Clinton McGrath/Bronwyn Ford, DAF
Update on outcomes to date of export project to Jakarta, plus information about proposal submitted for future export project to include Hong Kong and UAE.
- Jodi Neal / Mark Herrington, DAF
Update on current status of National breeding program and work to date.

Women's Wellness Weekend - 10th/11th February 2017 – Surfair, Marcoola

Two day event for Women of Industry group to get together, network and learn more about the potential for diversification of agribusinesses, and also the importance of stress management and looking after mental health during difficult times. Guest speakers included Tina McPherson, strawberry/passionfruit producer from Bundaberg with international farm tour business for women, and Emma Dunstan, SuperFriend.



❖ 30 attendees.

I had been thinking about starting a small side business to complement our strawberry farm so Tina's presentation really helped me to be brave and move forward with getting it off the ground.

Mandy S, Wamuran

So many of us women are the crux of our businesses. We look after the business side of things, organise the workers and still get out into the paddock too. We also have families to look after at the same time so managing our time and stress levels is so important. I took away a number of great ideas that have helped with time management and also tools to help calm myself down during our peak season when everything is so hectic.

Anne K, Elimbah

The opportunity to spend time with other women of the industry is worth its weight in gold! So much support and a chance to share ideas and build an invaluable support network.

No name

Victorian Strawberry Industry Study Tour – May 2017 – Yarra Valley, Victoria

Promoted, coordinated and led a small group of Queensland growers to attend the Victorian Strawberry Industry Forum. The IDO travelled with three Qld growers to the event, with another three attending separately. A valuable opportunity for Qld growers to meet and discuss methods of production etc with Victorian producers.

❖ Participants: 6 Queensland growers.



This was a great opportunity to meet growers from Victoria and hear about their challenges. We haven't had anything to do with them in the past so it was good to meet and make new connections and share some of our practices. Considering we were in the early stages of moving into substrate production, the suggestions I received from the Victorian growers were a fantastic help.

Dave F, Stothart Family Farms

Great trip, and really interesting to visit Strawberry Springs and see what Luci is doing with IPM and biosecurity on farm. I came back with some really good ideas on what we can try at home.

Ben D, Berry Patch Marketing

2017 Annual Dinner and Awards – Friday, 12th May 2017 - Caloundra Events Centre.

Coordinated and facilitated the annual networking event, which also acknowledges contributions to industry by growers and associates through the Industry Awards.

- ❖ Guests: 249 (54% growers / 46% industry associates)

Biannual Field Day – Wednesday, 5th July 2017 – Sunray Strawberries

Coordinated and ran Industry Field Day with 24 exhibitors in attendance and a range of presentations, farm tours and demonstrations held throughout the day. As the Field Day is held on farm over the course of a full day, it is difficult to establish how many growers were in attendance, but it is estimated that over 100 people attended throughout the day.

- ❖ 60+ growers in attendance throughout the course of the day.
- Refer Appendix 3 – Field Day Program.
- Refer Appendix 4 – Field Day Evaluation 2017.



Strawberry Festival – Saturday, 20th August 2017 – Sandstone Point Hotel

Assisted with the communication and coordination of growers for display and sale of strawberries. Also coordinated a research stall for taste testing of new Queensland bred varieties of strawberries.

- ❖ Participants: 6 grower stalls plus consumer research stall.

International Strawberry Symposium – 13th to 17th August 2017 – Quebec, Canada

Professional development opportunity. Attendance at International Strawberry Symposium. Components of program communicated with growers through various articles in Simply Red etc (refer communication activities).

Technology workshop – 18th October 2017 – Ashbern Farms, Beerwah

Organisation and promotion, in collaboration with Growcom, of a workshop for strawberry producers to showcase new full-lifecycle horticulture farm management system and the use of LiDAR, NDVI and EM Mapping technology as management tools.

- ❖ Participation: 18 growers.

Speakers included:

- Richard Ward, Apunga
- Rowena Beveridge, Growcom
- Jade King, Green Valley Agriculture
- Jen Rowling, Strawberry Industry Development Officer

The workshop was a good introduction into farm mapping technology. Not sure yet if we will use it on our farm but its great to see the advances in farming technology and knowing what's available if we do need it in future.

Pieter and Laura H

Women in Industry Bus Tour – 27th October 2017 - Brisbane Markets/Health & Food Sciences Precinct.

Coordinated and led a group study tour for the women of the industry to visit the Brisbane Markets at Rocklea, plus a tour of the Health and Food Sciences Precinct at Coopers Plains.

❖ Participants: 14.

Speakers included:

- Vanessa Kennedy, Communication Executive, Brisbane Markets Ltd
Guided tour plus overview of Brisbane Markets Ltd and update on progress/future of the markets.
- Paul Burt, Pilot Plant Manager
Tour of food grade pilot plant and food technology, sensory and consumer science facilities.
- Dr Michael Netzel and Dr Tim O'Hare, QAAFI
Tour of lab facilities and overview of work being done on Naturally Nutritious project.

A visit to the Brisbane Markets is always good to do to get an update on what's happening and catch up with our agents. Vanessa gave us a great update on how the markets have been performing and where they are heading. There have been so many changes in the sale of fruit over the years and we need to keep in touch with how that's affecting our central market system and the flow on affect.

Sue M, Sonnchein Fruit

Wow! I had no idea that this level of technology in food processing and manufacturing exists and is a resource that we could possibly tap into if we have an idea for our fruit. I've got ideas for waste strawberries so I'll definitely be following up on this.

Mandy S, Luvaberry

The visit to the Health and Food Sciences Precinct got me really excited about having a facility that we can utilise to get our processed strawberry products off the ground. Since the visit, I have tried to make this happen but it seems to be harder than we thought. It's a shame but the visit did reignite my enthusiasm to get my product ideas happening and I will continue to follow through with that.

Laura W, TSL Family Farms

DuPont IPM Workshops – 27th/28th October 2017 – Glasshouse Mountains / Nambour

Promotion and collaboration with DuPont on IPM Workshops for strawberry growers, presented by Paul Horne.

❖ Participation: 10 growers over two days.

Jakarta Export Study Tour – 29th Oct to 4th Nov 2017 – Jakarta Indonesia

Assisted with coordination and participated in Jakarta Export Study Tour as component of project funded by Package Assisting Small Enterprise (PASE) grant. Findings of initial tour shared with growers at AGM in February 2018, and export workshop on 24th April 2018 which discuss outcomes of project including consumer research etc. Fact sheets also produced and distributed (refer resources).

❖ Participants: 4 growers, 2 DAF staff, 1 Griffith University representative plus IDO.



2018

Qld Fruit Fly webinar – 1st February 2018

Refer <https://www.youtube.com/watch?v=iwy0WEnECy0> for recording.

Assisted with organization and promotion, and participated in Qld Fruit Fly Webinar facilitated by RMCg.

- ❖ Participation: 31 registrations, 21 participants.

Presenters included:

- Dan Papacek, Bugs for Bugs
- Paul Jones, Bugs for Bugs
- Update on current fruit fly status provided by Brett Jackson, Biosecurity Qld.

LiDAR Map Workshop – 2nd February 2018 – Beerwah

Promotion and participation in workshop facilitated by Growcom to provide growers with LiDAR map interpretations for individual farms and instructions for using Google Earth for further property information. Presented by Jade King, Green Valley Agriculture.

- ❖ Participation: 4 strawberry growers (plus growers from other industries).

BerryQuest International 2018 – 12th to 15th February 2018 – Launceston, Tasmania

The sub-tropical IDO, together with the temperate IDO and members of the other Australian berry industries, were responsible for the coordination of this international berry event. Over 400 delegates, from Australia and overseas, attended the two-day conference and farm tours, with speakers from US, Europe, NZ and Australia presenting on a broad range of topics such as breeding, innovative production systems, biosecurity, export, marketing and pest and disease control.

The conference offered a unique networking experience for growers, researchers and the wider industry and growers from all production areas of Australia attended as delegates.

Refer Appendix 5 for full program details.

- ❖ Participants: 400+ Australian and international delegates from across the berry category.



Stanthorpe Runner Farm visit – 28th/29th March 2018 – Red Jewel/Sweets Strawberry Runners.

Coordinated study tour for growers to visit runner producers in the Stanthorpe region. The impetus behind the visit was for growers to see first-hand the very different runner harvesting and packing methods of each farm. It was also an opportunity to see plug plant production facilities of both growers, and learn more about the potential benefits of plug plants vs bare root plants.

- ❖ Participants: 5 growers.



Visiting the runner farms was a real eye opener. I recommend all growers do it to see how they are harvesting the plants. Since the visit, I've also changed my mind about plug plants. I had thought that they are too expensive (and they are) but after talking to the runner growers, I can now see the benefit and the need for plugs going forward. I've agreed to trial some for now and see how they go.

Jared A, Beerburrum

The tour of the plug plant nurseries was a highlight. I even brought some home with me to try. I grow organic strawberries so I'm hoping they go well.

Pim M, Elimbah

Export workshop – 23rd April 2018 – Caboolture Hub

Coordinated and facilitated workshop to cover current and future export opportunities for Queensland strawberries.

- ❖ Participants: 12.
- Refer Appendix 6 – Export Workshop Evaluation 2018

Speakers and topics:

- Bronwyn Ford and Clinton McGrath, DAF
Outcomes of export project to Jakarta / next stages.
- Karl McIntosh, Senior Consultant, RMCG
A cooperative approach to export.
- Robin Roberts, Griffith University
Consumer research outcomes from Jakarta and from across Asia.
- Ben Reilly, Steritech
Update on irradiation as a treatment option for export.

2018 Annual Dinner and Awards night – 11th May 2018 – Eatons Hill Hotel, Brisbane

Coordinated and facilitated the annual networking event, which also acknowledges contributions to industry by growers and associates through the Industry Awards.

- ❖ Number of attendees – 239 (53% growers/47% Industry Associates).

GQFE Funded Export Study Tour to Hong Kong/Jakarta - 31st May to 9th June 2018 – Hong Kong/Jakarta

Assisted with the coordination and participated in Hong Kong and Jakarta Export Study Tour project funded by Growing Queensland's Food Exports (GQFE) grant through Queensland Government.

- ❖ Participants: 4 growers, 2 DAF staff, 1 Griffith University representative (Jakarta component only) plus IDO.
- Appendix 7 – Export Tour Participant Evaluation June 2018



Red Jewel Farm Walk – 29th August 2018

Assisted Red Jewel (runner grower) with promotion of a farm walk at the Red Jewel Research Farm to allow growers the opportunity to have a look at new trial varieties of strawberries.

- ❖ At least 20 growers visited the farm throughout the course of the day.

Leadership Fund workshop series – July to October 2018 – Canberra/Brisbane

Liaison with Tropical Hort Group/Australian Melon Industry on Leadership Fund workshop and event development, and identification of Queensland growers to participate. First series of workshops held in Canberra/Brisbane with one grower from the Queensland Strawberry Industry participating (Brendon Hoyle, Ashbern Farms).

Strawberry Festival – 18th August 2018 – Sandstone Point Hotel

Coordinated strawberry growers to participate in annual Strawberry Festival at Sandstone Point Hotel. Four growers took part in the event which saw more than 5,000 people attending throughout the day to promote strawberry production in the region.

- ❖ Participants: 4 grower stalls.

Needle crisis meetings/teleconferences

Participated in and coordinated a large number of meetings and teleconferences as a result of the needle crisis in September 2018 with the view to gaining up-to-date information from all stakeholders, and be able to communicate this info back to growers efficiently and accurately. Events included:

- **Qld Health led teleconferences**

Participation in a series of teleconferences were rolled out by Qld Health in the days/weeks immediately following the initial needle crisis event. These teleconferences brought together industry with representatives from Qld Health, DAF, Growcom, Food Safety, Brisbane Markets, Sean Dignum (crisis manager) etc.

- **QSGA Crisis Meeting – 17th September 2018 - Beerwah Golf Club**

Organised a crisis meeting for growers in the immediate wake of the crisis including sourcing speakers from State Government to attend and speak directly with growers.

❖ Attendees: Over 50 growers plus industry associates.

Speakers included:

- Minister for Agriculture, Mark Furner
- Chief Health Officer, Dr Jeanette Young, Queensland Health
- Superintendent Peter Brewer, Qld Police Service
- Rachel Mackenzie, Growcom



- **FSANZ Meeting – 9th October 2018 – Brisbane Airport**

Attended FSANZ initiated meeting regarding needle crisis which brought together representatives from all major retail chains and markets. The meeting was an initial update to hear about the response from all the relevant outlets and initiate discussions around how best the Federal Government can assist the strawberry industry and retailers moving forward.

- **Back to Market Working Group meetings/teleconferences**

Assisted with the establishment of a Back to Market Working Group by recruiting growers and participating in the regular meetings/teleconferences.

The purpose of the Queensland Strawberry Industry Back to Market Working Group is to provide a forum for discussion between the Queensland strawberry industry and the Queensland Government. The group progressed issues relating to the contamination of fresh strawberries including:

- Immediate steps be taken to restore consumer confidence and support the industry in getting back to market
- Intermediate to long-term measures that may be necessary to improve supply chain integrity and secure market access and confidence

- Providing a mechanism to feed information back into the broader government investigation into the contamination, and response in relation to food safety processes.

The working group provides the framework for a partnership approach to determine the allocation of support funding provided by the Queensland Government.

Meetings began in September 2018 and were initially held weekly, then stretched out to fortnightly and monthly.

- **#berryloved Planning Committee**

With funds received from community support, the IDO coordinated a team to work together on rolling out workshops and information sessions, networking opportunities etc for Queensland strawberry growers.

The team met regularly and developed a Save the Date calendar to ensure that growers are aware in advance of upcoming events. The team has also worked on other opportunities to help growers build resilience and improve business practices, such as identifying funding opportunities, financial assistance, strategic business planning tools and resources etc. The team is comprised of the IDO, an Admin Support Officer and Industry Liaison Officer (both positions funded by State Government funding as a result of needle crisis), and our Marketing Coordinator (also funded with State Government funds).

- **Regional Grower Crisis Updates – Bundaberg 12th October / Stanthorpe 17th October 2018**

Coordinated and facilitated information sessions for growers in regional areas of production to update them personally on the current situation with the needle crisis. Powerpoint produced and guest speakers from Qld Health participated particularly in response to Qld Health on-farm audits which had been taking place.



- ❖ Participants: Bundaberg – 5 growers, Stanthorpe – Approx. 10 growers.

- **Grower lunch with Sean Dignum – 4th December 2018 – Caboolture Sports Club**

Organised and promoted an informal lunch meeting for growers to hear directly from Sean Dignum, Crisis Manager about the needle crisis, an overview of what happened and why, and what to do in regards to media enquiries.

- ❖ Participants: 25 growers.

Strawberry Charcoal Rot Project Team Meeting – 17th October 2018 - Stanthorpe

Participated in the 2018 annual project team meeting of the strawberry charcoal rot project, providing input into opportunities to engage growers and distribute information and outcomes of the project. The meeting was held at Applethorpe Research Station in Stanthorpe.

Spotted Wing Drosophila Workshop – 29th October 2018 - Melbourne

Participated in SWD workshop held in Melbourne. The event was run by Plant Health Australia and **cesar** as part of a Hort Innovation funded project, and sought input from various industry groups as to how well Australian industries and governments are prepared for a possible incursion of spotted wing drosophila. The first half of the workshop included talks from the invited experts, details of the project, and updates on pest control practices. During the second half, participants were asked to consider a number of scenarios, including response to a suspected incursion of SWD, provide thought to implementing management tools and managing market access.

Spotted Wing Drosophila Workshop (regional - Victoria) – 30th October 2018 – Wandin North, Vic

Attended the regional SWD workshop in Wandin for growers, extension professionals, researchers and government representatives with Prof Rufus Isaacs of Michigan State University.

Spotted Wing Drosophila Workshop (regional - Queensland) – 2nd November 2018 – Caboolture

Promotion of the regional SWD workshop in Caboolture.

- ❖ Participants: Approx. 6.

Webinar – Transitioning from soil to substrate – 1st November 2018.

Refer <https://www.youtube.com/watch?v=rdT5SXUhRul> for recording.

Support and promotion of webinar provided, including organising grower speaker, Laura Wells from Taste n See.

- ❖ Participants: Approx. 20.

2019 (to 30th June 2019)

Women in Industry lunch – 8th February 2019 – Surfair, Sunshine Coast

Luncheon for the Women of the Industry (funded by community support funding from needle crisis) with a focus on mental health and resilience within difficult business environments.

- ❖ Participants: 25 growers.



When we get together as women of the industry, its great because we're all basically experiencing the same challenges. We get a chance to compare notes and learn from each other. You can't put a price on that.

No name

QSGA AGM – 26th February 2019 – Beerwah Golf Club

Promoted meeting and organised a range of guest speakers including the following:

- Rachel Mackenzie, Berries Australia
Update on Berries Australia, and what this means for the strawberry industry.
- Jane Richter, Restoring Consumer Confidence Marketing campaign
Update on status of marketing campaign, funded by State Government.
- John Chapman, ASRAA Chairman
Update on ASRAA Committee activity.
- Michelle Paynter / Joanna Kristoffersen, DAF
Information about Red leaf research project.
- Jodi Neal, DAF
Update on current status of National breeding program.
- Clinton McGrath, DAF
Update on export project and where to from here.

- ❖ Participants: 35 growers plus industry associates.

Leadership Fund workshop – 4th/5th/6th March 2019 – Canberra/Brisbane

A second round of LEAD workshops began in Canberra in October 2018, with one grower from the Queensland industry participating in the three day event (Adrian Schultz). The successive 3 day workshop in Brisbane in early March was held and attended by both Adrian Schultz and the IDO. A series of webinars have also been coordinated as part of the Leadership Fund project.

IR Workshop – 8th March 2019 - Caboolture

Organised and promoted an information session for growers about current Industrial Relations issues such as the new Labour Hire legislation. A representative from IR gave a detailed overview of the legislation and the implications for growers. In attendance and providing updates in each of their jurisdictions were representatives from the following departments:

- Workcover
- Qld Fire and Emergency Services
- Australian Border Force
- Australian Tax Office
- Workplace Health and Safety Qld Agricultural Unit.

❖ Participants: 28

I think we need something like this once a year to make sure we're all up to date on all of this. It's so important because if we get anything wrong, we can get in so much trouble. It's also a good opportunity to ask questions and get answers directly from the horses mouth. I had a list of questions for them and came away with the answers I needed.

Angela C, Wamuran

Stanthorpe Runner Farm visit – 21st March 2019

Coordinated day study tour for growers to visit runner producers in the Stanthorpe region. The impetus behind the visit was for growers to see first-hand the current difficulties being experienced by the runner growers as a result of the drought in the Granite Belt region.

❖ Participants: 5 growers.

2019 Annual Dinner and Awards – Friday, 10th May 2019 – Maroochy RSL

Coordinated and facilitated the annual networking event, which also acknowledges contributions to industry by growers and associates through the Industry Awards.

❖ Guests: 228 (55% growers / 45% industry associates)

Agritourism Study Tour – 22nd May 2019 – Cooloolool Region (Gympie)

Facilitated the coordination of a business diversification study tour to the Cooloolool Region, Qld. Growers were invited to participate in the road trip, which featured a visit to a number of agritourism businesses in the region. Further workshops to be held on this subject later this year.

❖ Participants: 12

Had a great day exploring the Cooloolool Region and it's fantastic to see what others are doing in agritourism. Its so hard to make a good living by simply farming these days – what these people have done means they can continue farming but offer something else to support their business and educate the public about farming at the same time. It's something that I think a lot of us are going to have to think about for the sustainability of our businesses.

No name

Grower groups and communities of practice

- Expansion of Women in Industry Network through liaison and regular meetings, and Women's Wellness Weekend held in February 2017, Women in Industry Bus Tour to Brisbane Produce Markets / Health and Food Sciences Precinct in October 2017, and Women in Industry Lunch held February 2019.
- Plastic waste, edible waste and local labour hire communities of practice established to address these issues within the industry. These COPs involve ongoing collaboration with local councils and

Regional Development Australia, various state government departments, growers and private enterprise.

Industry resources produced

- Runner reports – An annual report (2017/2018/2019) was produced on the quality of runners in Stanthorpe, Qld pre-harvest for the sub-tropical growing regions. The report incorporates the climatic challenges faced by runner growers and how these conditions have affected runner quality, expected harvest dates and if plant numbers have been adversely affected requiring fruit growers to consider alternative variety options. It also assists growers with advice on how best to manage plants during planting and in the lead up to harvest given any damage caused by excessive heat etc. See Appendix 8 for the 2017 Runner report.
- Participation in regular teleconferences and support provided for the development of Australian Good Practice Guide for the Strawberry Industry being developed by RMCG in project BS15002.
- Compiled and presented a submission to University of Queensland for the development of an IPM/Pest and Disease Identification smartphone application. Liaised with students during the design and build phase of the apps development, and coordinated trials with a small group of growers with positive feedback. Sourced and engaged graduate to continue work on the functionality of the app. The app has been completed and is now available for download on both Apple and Android devices. For further information, refer Strawberry Innovation website at <http://strawberryinnovation.com/production/2019/7/15/app-to-identify-major-strawberry-pests-and-beneficials>
- Export fact sheets produced for distribution at export workshop on 24th April 2018 and at a subsequent grower meeting on 15th May 2018. Refer Appendix 9.
- Worked with the Australian Strawberry Breeding program to develop varietal information sheets, highlighting the key characteristics of current strawberry varieties. These information sheets will be used both domestically and for export opportunities. A rough draft was produced for Red Rhapsody which was distributed to importers/buyers etc in Hong Kong. Refer Appendix 10.

Communications activities

- Grower survey/needs assessment distributed to Qld strawberry growers by email on 29th April 2016 and in person at QSGA meeting on 3rd May 2016. 16 responses received. Data collated and provided to RMCG to assist with program logic/design.
- A Scope of Work was developed on the collection and collation of runner data to address challenges and identify strategies to ensure that the required data is collected and collated accordingly.
- Periodic submission of content for Strawberry Innovation website and The Punnet eNewsletter, including:
 - Article – Resources for Greenhouse Strawberry Production – The Punnet eNewsletter, October 2016
 - Article – Sub-tropical Runner Report – The Punnet March 2017
- Content development and sourcing for Simply Red newsletter, together with coordination of advertising and editorial content. All Simply Red issues produced during the course of this project can be found at <http://strawberryinnovation.com/newsletters/>. Contributions include:
 - Article – South Korean Strawberry Imports Update – Simply Red Issue # 42, June 2016
 - Update – Qld Strawberry Industry Annual Dinner and Awards Night – Simply Red #42, June 2016
 - Update – 2nd Annual Strawberry Festival – Simply Red # 43, September 2016

- Article – International Strawberry Symposium brings together world leaders in research, technology and information – Simply Red Issue #43, September 2016
- Article – Campaign launched to source local workforce – Simply Red Issue #43, September 2016
- Article – Challenge set to find solution to plastic waste in the strawberry industry – Simply Red Issue #44, December 2016.
- Update – Awards and Field Day promotion – Simply Red #45 March 2017
- Article – QSGA Awards Commercialisation Licence of Sub-Tropical Strawberry Varieties – Simply Red #46 July 2017
- Update – Qld Strawberry Industry Annual Dinner and Awards Night – Simply Red #46 July 2017
- Update – Field Day promotion – Simply Red #46 July 2017
- Article – Organic Strawberries: A Small Slice of Australia’s Billion Dollar Organics Industry – Simply Red #47 September 2017
- Update – Queensland Strawberry Industry Field Day 2017 – Simply Red #47 September 2017
- Update – Strawberry Festival – Simply Red #47 September 2017
- Update – Beneficial Insects an Important Pest Control Option for Strawberries – Simply Red #48 December 2017
- Update – Strawberry Women’s Bus Tour – Simply Red #48 December 2017
- Article – BerryQuest International 2018 – Simply Red #49 March 2018
- Update – 2018 Queensland Strawberry Industry Annual Dinner and Awards night – Simply Red #49 March 2018
- Update – Queensland Strawberry Industry Annual Dinner and Awards night – Simply Red #50 July 2018
- Article – The evolution of sub-tropical runner production in Queensland – Simply Red # 51
- Article – The role of social media in the strawberry tampering crisis – Simply Red # 52
- Update – Sub-tropical region – Simply Red #51 September 2018 / # 52 January 2019 / #53 April 2019
- As a result of the needle crisis, the IDO was involved in a significantly large number of media interviews inc. radio, print and television. She also participated in a Landline feature for the ABC which covered a range of topics and issues within the strawberry industry. This was aired on 18th November 2018.

Outcomes

The aim of the project has been to enhance the adoption of innovation and technology through brokering research and development and facilitating capacity building. The focus has been to improve knowledge and skills, and support practice change for long-term sustainability and profitability of Australian strawberry businesses.

Delivery of the project's aims and objectives has been achieved through a range of activities that can be broadly grouped into three areas:

1. Industry coordination – activities that provide a framework for improving coordination and cohesiveness within the Australian Strawberry Industry.
2. Knowledge transfer – delivery of topic specific activities and events that address the particular needs of the industry.
3. Communications – activities focused on informing industry on events, issues and the latest R&D.

Each of these areas have been utilized to support the key outcomes of the Strawberry Strategic Investment plan as follows:

Outcome 1: By 2021, per capita domestic consumption of fresh Australian strawberries will increase by 10%, underpinned by consistent supply of premium quality fruit that matches consumer desires.

The preparation of regular updates on regional, state and national issues, together with supply of information regarding the status of sub-tropical runner production, new varieties and international industry activity in regards to varieties and new production methods has supported the objective of increasing the growers' capacity to provide a consistent, premium quality product.

As an added bonus, the funding of a Consumer Confidence marketing campaign by the Queensland State Government as a result of the 2018 needle crisis has provided an opportunity for industry to gather critical consumer data for presentation to growers, highlighting the current status of household consumption of strawberries and what needs to be achieved to increase this consumption. This information has been particularly well received by growers, who can now clearly see what is required to encourage consumers to buy more strawberries, and the importance of providing a quality product to achieve this.

Outcome 2 – By 2021, increase exports of Australian strawberries from 4% to at least 8% of national production by volume, in selected markets with a capacity and willingness to pay a premium for quality fruit.

In Queensland, grower interest in export has been significantly increased through the distribution of information gained via two externally funded export projects to Jakarta and Hong Kong. The outcomes from these projects, which focused on the export of Queensland grown produce to these markets, provided a clearer view of the supply chain, costs, quality expectations and requirements for international export of strawberries. These findings were delivered via newsletter articles, a grower workshop, fact sheets and updates on current export market opportunities at grower meetings. As the IDO participated in both of these study tours, she was able to also talk confidently about potential opportunities for Queensland strawberries into international markets to growers during farm visits and other one-on-one discussions.

Outcome 3 – By 2021, the industry will increase farm productivity (marketable yield per hectare) by an average 10%.

A broad range of activities and events, tools and resources have been utilized throughout the course of the project to provide growers with access to information to assist with increased farm productivity/marketable yield per hectare.

These include the development of online resources and information products on innovation, best practice and R&D outcomes, regular updates on national issues, runner production and variety trials, and the delivery of online resources such as webinars. Workshops, field days, networking events and regional tours, all relevant to current identified industry issues and topics, have continued to provide growers with a broad range of opportunities to access the latest information on innovation and technology in farming and business practices. Grower groups and communities of practice have also been established and/or expanded to encourage the sharing of ideas, leading change and provision of ideas and feedback for the benefit of the project.

Outcome 4 – By 2021, at least 90% of national production and 90% of growers and other firms involved in the strawberry value chain will be directly engaged with and value national industry services.

Support for this outcome has been achieved through the preparation of numerous communication tools for distribution through a range of communication methods. These include Simply Red newsletter, The Punnet e-newsletter, the production of industry reports such as the annual sub-tropical runner updates, regular email updates to growers and industry associates on key issues and information, fact sheets and technical guides, and the provision of opportunities for growers and associates to network and build relationships which encourage the sharing of information and knowledge.

The utilization of a range of media and forums has ensured the effective communication of relevant industry information/ messages to a range of industry stakeholders including levy payers, service providers, supply chain businesses, government and the community.

The Australian Strawberry Industry has wide local, national and international support that have provided information and assistance in a wide variety of topics including pest and disease management, export, marketing and capacity building. These networks are vital and need to continually be nurtured and broadened to ensure the future sustainability of the industry.

Monitoring and evaluation

The first 6 months of BS15003 were focused on identifying the needs of growers in sub-tropical growing regions, providing input to RMCG for the development of the BS15002 program plan and developing a regional delivery work plan for BS15003 based on the program work plan of BS15002.

Following are the findings from a needs analysis survey distributed to Queensland Strawberry Producers in May 2019, as an example of the responses received and how these were factored into the program logic:

Review of information received from survey of Queensland Strawberry Producers for the Australian Strawberry Industry Development Program

Number of completed surveys received:

8 + one collaborative survey (Exec. Committee) representing 8 growers = 16 growers in total responded.

Industry Survey with responses in order of priority

What are the aspects (in diagram above) you would like the development program to focus on:

1. Markets (43%)
2. Genotypes (37%)
3. Business (10%)
4. Environment (7%)
5. Production (3%)
6. People (0%)

Markets

What activities within each focus area do you think would provide value to the industry?

1. Working with growers to improve opportunities to export fruit (60%)
2. Developing methods for value-adding to fruit (22%)
3. Investigating ways to use 'second grade' fruit (18%)

Any other activities/issues you would like addressed within this focus area?

- **Marketing strawberries (Qld) – full campaign during our season.**

Business

1. Improving people/HR management skills (41%)
2. Improving collection of industry data (41%)
3. Economic analysis of costs of production (13%)
4. Benchmarking of businesses (5%)

People

1. Study tours to other production regions (38%)
2. Providing national networking and recognition opportunities (i.e. conferences, awards) (33%)
3. Leadership training (19%)
4. Initiating a Young Growers Group (10%)

Breeding

1. Working with industry to improve runner quality, timeliness and systems (73%)
2. Developing agronomic packages/resources to aid production of new varieties (27%)

Any other activities/issues you would like addressed within this focus area?

- **Transferring info out of breeding program.**

Environment

1. Improving pest and disease management (including development of an Australian IPM manual for the strawberry industry) (34%)
2. Improving soil health management practices (26%)
3. Update of the biosecurity plan for the Australian strawberry industry (16%)
4. Looking at options for managing plastic waste (15%)
5. Developing an Environmental Management Scheme (9%)

Any other activities/issues you would like addressed within this focus area?

- ***New chemical registration***
- ***Soft chemicals for IPM***

Production

1. Investigating the ability to use precision agriculture technology in the strawberry industry (65%)
2. Investigating options for mechanisation of harvesting (19%)
3. Investigating and providing economic information on alternative production methods (such as high tunnels, table-tops, robotics) (16%)

Would you still like to receive the quarterly hard copy newsletter 'Simply Red'?

100% answered Yes

Would you like any changes made to it?

- ***Email version possible?***

Would you like to receive a monthly newsletter via email which provides a quick update on new resources, events and issues occurring in the Australian Strawberry industry?

- **100% answered Yes**

Key evaluation questions (KEQs) for the project were developed by RMCG and arranged by five key themes in accordance with best practice evaluation (DAFF and DSEWPac 2011):

1. Impact: What has changed or is different as a result of the industry development undertaken, either positive or negative? e.g. extent of change to knowledge, skills, attitudes, management practices or businesses/organisations (operational or economic)
2. Effectiveness: To what extent were the planned industry development activities achieved?
3. Appropriateness: To what extent did the activities and the way they were undertaken align with stakeholder needs and expectations? To what extent has the innovation being tested contributed useful information to address the objectives? Which innovation practices or technology employed did not contribute to / deliver on outcomes? And why?
4. Efficiency: To what extent did the project achieve the desired result within budget and timeframes?
5. Legacy and sustainability: To what extent will the project have a lasting impact on the capacity of the Australian strawberry industry? What, if any, lessons have been learned that could improve the success of future projects?

Evaluation of the overall program has been conducted by RMCG as part of the national oversight project BS15002, however the IDO was able to maintain the relevance and efficacy of the project through various forms of consultation with industry utilizing the KEQs as listed above:

- Individual grower input during farm visits and group meetings regarding issues of importance to their business and/or the broader industry, input into the Strategic Planning process and feedback on events and activities.
- Review of events/activities were conducted during grower meetings scheduled quarterly for members of the Queensland Strawberry Growers Association. This provided a forum for open discussion about what worked and what didn't, relevance to current issues and suggestions for future activities.
- No hard copy/electronic grower survey specifically reviewing the IDO sub-tropical delivery project was undertaken, and grower surveys following various events such as workshops were conducted but the majority did not generate a sufficient response to provide informative data. Comments received have been compiled and included in relevant activities above. A new form of evaluation of events needs to be developed and encouraged from the early stages of a future project.
- A full Participant Evaluation report was prepared following the Hong Kong/Jakarta export study tour conducted in June 2018. This is attached as Appendix 7.
- An evaluation of the 2017 Field Day was conducted and is attached as Appendix 4.
- The Industry Development Officer communicated regularly with the Chair and members of the QSIPC Executive Committee, together with individual grower members of the QSGA. Also, as necessary, the Industry Development Officer has communicated with experts external to QSIPC Executive and QSGA membership.

Recommendations

The *Facilitating the development of the Australian strawberry industry* project continues to be a very important one for the Australian Strawberry Industry. Having a national oversight project (BS15002) brought focus into the past, current and future needs and activities of the Australian Strawberry Industry, and the regional delivery projects for sub-tropical and temperate growing regions (BS15003 and BS15004) were vital to the delivery of activities and resources specific to each of these regions.

The aim of the project has been to continue the development of the Australian Strawberry Industry to achieve increased profitability through a multi-faceted approach to industry capacity building.

While no specific evaluation was undertaken for BS15003, the following are recommendations received from members of the Queensland Strawberry Growers Executive Committee/Queensland Strawberry Industry Promotions Council during discussions regarding the potential format of future industry development projects for the strawberry industry:

- Sufficient resources are essential to coordinate and run professional industry events, ensuring maximum benefits for participants and stakeholders. A cross berry industry project may provide for an increase in resources and the opportunity for growers and stakeholders within the broader berry category to benefit from a diverse range of topics that will be useful to the entry level grower and small market supplier, through to the large, well established strawberry producer.
- A good understanding of the timings associated with each season eg. pre-season, planting, harvest, post-season, particularly so for a cross-berry industry project, and the effect of weather events is essential to coordinating and appropriately scheduling industry events to ensure there is interest and participation.
- While regional growing districts can be somewhat managed on an individual basis as they face challenges specific to their region, they also need to be kept informed on all current industry issues, and acknowledged within the greater strawberry community so as not to feel isolated in any way and share experiences and practice changes. This has been done much more effectively within this project as opposed to previous industry development projects, but further improvement is needed. For example, Western Australia needs additional services from a state-based IDO, funded as part of the future Industry Development Project and with access to the national communication network.
- Overcoming cultural and language barriers continues to be an important part of ensuring all strawberry producers have access to the information necessary to make informed production and business decisions.
- As a result of this project, strawberry producers have increased their skills with information technology (eg. Webinars, e-newsletters, website information etc). Further growth in this area should continue, as growers become increasingly time-poor/unable to leave the farm during busy times such as harvest, planting etc.
- Strawberry producers respond well to face-to-face requests for feedback (eg. on-farm, in meetings), however the collection and collation of data from growers has always been a struggle. Responses to surveys are minimal, as is the provision of data on production, plant numbers etc. It has been suggested that a specific and consistent survey/data collection method is established and utilized nationally to ensure growers are able to develop a level of trust around the provision of information. This information is necessary in achieving a sound base to work from for future activities and events which accurately represent the needs of the industry, and to achieve a new maturity within the industry.
- Data collection from runner growers has also been an ongoing challenge due to a number of reasons. A Scope of Works was developed within this project to address these challenges and work needs to continue on this. Refer Appendix 7 – Scope of Work.

- As a result of this project, a more solid, collaborative working relationship between Industry Development Officers in Queensland and Victoria has developed and has been extremely beneficial to the project and to the national strawberry industry. It is believed that a cross-berry industry team approach to a new project would further enhance a more collaborative style of knowledge transfer and information sharing.
- As a result of considerable change within the strawberry industry over the last few years, the industry requires substantial continuing development to support the sustainability of growers and the broader strawberry industry. The industry has received an immeasurable amount of support and technical information from the Industry Development Officer and the *Facilitating the development of the Australian strawberry industry* project. The linkage between this project BS15003, the temperate regional delivery project BS15004 and the national oversight project BS15002 has been an important and integral part of the development of the Australian Strawberry Industry.

The Queensland Strawberry Industry Promotions Council (QSIPC) recommends that:

- a) The position of Industry Development Officer be continued, building on past programs/projects to continue the support required for a sustainable and profitable national strawberry industry;
- b) A new approach to grower surveys be implemented and all endeavours are made to achieve at least a 75% grower response;
- c) All endeavours are made to maintain and further strengthen the strawberry industry biosecurity, research and development and chemical portfolios and continue the collection of data, preparation of reports and distribution of information to the growers.

Intellectual property, commercialisation and confidentiality

No project IP, project outputs, commercialisation or confidentiality issues to report

Appendices

- Appendix 1: Example of Annual Workplan for Year 3
- Appendix 2: Plastic Waste Challenge Report
- Appendix 3: Field Day program
- Appendix 4: Field Day Evaluation 2017
- Appendix 5: BerryQuest Program
- Appendix 6: Export Workshop Evaluation 2018
- Appendix 7: Export Tour Participant Evaluation 2018
- Appendix 8: 2017 Runner Report
- Appendix 9: Export fact sheet.
- Appendix 10: Varietal information sheet for export.

Annual Work Plan - Year 3 of the Industry Development Program for the Australian Strawberry Industry

MECHANISM	ACTIVITY	NATIONAL COORDINATION (BS15002)	JULY 2018	SUB-TROPICAL REGIONAL DELIVERY PARTNER (BS15003)	JULY 2018	TEMPERATE REGIONAL DELIVERY PARTNER (BS15004)	JULY 2018
Communication	Develop and maintain online resource (website) providing information on R&D outcomes	<ul style="list-style-type: none"> Maintain website content including news, resources and events on a minimum weekly basis 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Submit website content periodically 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Submit website content periodically 	<ul style="list-style-type: none">
	Develop information products on innovation and best practice within the strawberry industry	<ul style="list-style-type: none"> Communicate and share information products through communication platforms including website, SimplyRed and The Punnet e-News (ongoing) Develop and publish remaining chapters of national Good Practice Guide (ongoing) Develop and publish fact sheet on protected cropping structures for National Good Practice Guide (ongoing) Desktop publish and print revised Australian Pesticide Guide (April 2018) Desktop publish and print revised Australian IPM Poster for the Strawberry industry (May 2018) Support IPM App development with Uni of Qld (May 2018) Develop information resources on management of food and plastic waste – what are the options? What new technology is available to assist with this issue? (May 2018) Develop fact sheets on key pests within strawberry industry (May 2018) Develop and publish information resources for substrate production and protective cropping (June 2018) Develop decision support tool on transition from field to substrate/protected cropping. Tool to discuss COP and ROI (August 2018) Develop resources on business management (September 2018) Develop information resources on new technology within the horticulture industry such as super-charged plasma and robotics (November 2018) 	<ul style="list-style-type: none"> GPG Post Harvest Chapter developed by Aileen to progress to final draft GPG Nutrition Chapter to start Minor Use Chemical Fact Sheet - discuss with Angela edits to progress NC budget to pay for IPM App development. Kristen to draft email confirming payment details. 	<ul style="list-style-type: none"> Review and provide feedback on National Good Practice Guide, fact sheets and provide grower case study content as required (ongoing) Develop fact sheets on chemical management and waste management for National Good Practice Guide (ongoing) Develop information resource on Plug Plants – Grower experiences (April 2018) Finalise and publish IPM App with assistance from University of Queensland student (May, 2018) Develop information resources on management of food and plastic waste – what are the options? What new technology is available to assist with this issue? (May 2018) Develop information resources for substrate production and protective cropping (June 2018) 	<ul style="list-style-type: none"> Develop information resources on management of food and plastic waste – what are the options? What new technology is available to assist with this issue? (September 2018) IPM App to be finalised (August, 2018) Review and provide feedback on post-harvest management chapter to Aileen Variety info sheet to be developed (June 2018) Develop information resources for substrate production and protective cropping (June 2018) Develop information resource on Plug Plants – Grower experiences/varieties/runner production (June 2018) 	<ul style="list-style-type: none"> Review and provide feedback on National Good Practice Guide, fact sheets and provide grower case study content as required (ongoing) Develop fact sheets on nutrient management and biodiversity management for National Good Practice Guide (ongoing) Develop information resource on Plug Plants – Grower experiences (April 2018) Develop revised Australian IPM Poster for the Strawberry industry (May 2018) Develop information resources on management of food and plastic waste – what are the options? What new technology is available to assist with this issue? (May 2018) Develop information resources for substrate production and protective cropping (June 2018) Develop information resource on Native Vegetation Insectarium – Strawberry Springs (September 2018) 	<ul style="list-style-type: none"> Insectarium FS still to be completed – will be reviewed by Karen Thomas (July 2018) Develop revised Australian IPM Poster for the Strawberry industry (June 2018) Develop information resources on management of food and plastic waste – what are the options? What new technology is available to assist with this issue? (September 2018) Review and provide feedback on post-harvest management chapter to Aileen Develop information resources for substrate production and protective cropping (June 2018) Review and update pesticide guide. Provide updated version to Clinton for desktop publishing.
	Prepare regular updates on national issues, runner production, variety trials & industry profiles	<ul style="list-style-type: none"> Provide editorial oversight of quarterly print SimplyRed Newsletter. Publication schedule includes: <ul style="list-style-type: none"> #51 – September 2018 #52 – December 2018 #53 - March 2019 	<ul style="list-style-type: none"> July edition of Simply Red at printers and will then be distributed Proposed articles for September issue to include: <ul style="list-style-type: none"> Breeding program article Berry market strategy Chris Menzels article on charcoal rot management 	<ul style="list-style-type: none"> Develop and source relevant content for quarterly Simply Red Newsletter 	<ul style="list-style-type: none"> Develop article on management of food and plastic waste – what are the options? What new technology is available to assist with this issue? (September, 2018) Variety breeding program and relationship with runner production – key challenges and shared lessons from Chad Finn (September edition) 	<ul style="list-style-type: none"> Develop and source relevant content for quarterly Simply Red Newsletter 	<ul style="list-style-type: none"> Article on Vic Strawberry Forum included in July edition Insectarium article - update on field trial (for September edition)

MECHANISM	ACTIVITY	NATIONAL COORDINATION (BS15002)	JULY 2018	SUB-TROPICAL REGIONAL DELIVERY PARTNER (BS15003)	JULY 2018	TEMPERATE REGIONAL DELIVERY PARTNER (BS15004)	JULY 2018
		<ul style="list-style-type: none"> Develop and distribute The Punnet on the 3rd Wednesday of the month. Schedule includes: <ul style="list-style-type: none"> July – 18 July 2018 August – 15 August 2018 September – 19 September 2018 October – 17 October 2018 November – 21 November 2018 December – 19 December 2018 January – 16 January 2019 February – 20 February, 2019 	<ul style="list-style-type: none"> July edition of the Punnet to include: HCCC Webinar to share AUSVEG SA HCCC Fact Sheet in Vietnamese Link to Angela's QFF article Berry export strategy? 	<ul style="list-style-type: none"> Update email contact lists Submit content for The Punnet as appropriate Targeted email updates to regional growers as required 	<ul style="list-style-type: none"> Article on exporting trip to HK and Indonesia, QDAF project and grower's experiences 	<ul style="list-style-type: none"> Update email contact lists Submit content for The Punnet as appropriate Targeted email updates to regional growers as required 	<ul style="list-style-type: none"> Freshcare & HARPS training in September (Brendan May)
	Facilitate learning from leading growers through 'stories of success'	<ul style="list-style-type: none"> Edit and populate case studies into project template Distribute case studies through communication channels including The Punnet e-News Publish case studies, as appropriate, in SimplyRed magazine Upload case studies to strawberry innovation website 		Develop substrate/protected cropping grower case study series: <ul style="list-style-type: none"> Pinata Farms (September 2018) Protected cropping in Australia – combined grower experiences (December 2018) Grower Profiles to be developed: <ul style="list-style-type: none"> Jemma & Grace (Bundaberg) – Female growers (June 2018) Ray Daniels - Robotic Harvesting / Heat seal packaging (September 2018) 	<ul style="list-style-type: none"> Develop grower profile on Jemma & Grace (Bundaberg) – Female growers (June 2018) Supply chain management through export market access (Exporting Grower) - to align to GPG Post Harvest Chapter 	Develop substrate/protected cropping grower case study series: <ul style="list-style-type: none"> Tasmanian growers (June 2018) Anthony Yewers WA (September 2018) Protected cropping in Australia – combined grower experiences (December 2018) Grower Profiles to be developed: <ul style="list-style-type: none"> Luciano Corrallo – Agribusiness / Tourism (June 2018) Westerway Farms (Tasmania) - Value Addition/Frozen berries (September 2018) Westerway Farms (Tasmania) - Robotics (December 2018) 	<ul style="list-style-type: none"> Develop Grower profile on Luciano Corrallo Insectarium with GPG (July 2018) Nutrition management - PRIVA Nutri Jet / Sunny Ridge - to align to GPG Nutrition Chapter
Knowledge Transfer	Develop and deliver on-line resources such as webinars or videos	<ul style="list-style-type: none"> Host webinars and post on website Advertise and communicate videos and webinars through communication platforms including website, SimplyRed and The Punnet e-News Organise webinar on transition from field cropping to substrate/protected cropping (featuring Klaas Walveren) (May 2018) Organise webinar on WFT and management of other key pests (featuring Biological Services) (October 2018) Scope potential for video on grower experiences with protected cropping/substrate production. Potential interviewees: (December 2018): <ul style="list-style-type: none"> Shiffke/Taste N see Anthony Yewers Simon Dornauf/Roly 	<ul style="list-style-type: none"> Webinar with Klaas - 20 September, 2018 - timing late afternoon Existing webinars (HARPS, Hort Code of Conduct) shared as resources in July Punnet e-News 	<ul style="list-style-type: none"> Interview growers within region on protected cropping/substrate production experiences for video (December 2018) Assist in advertising, sourcing speakers and participate in webinars as required (ongoing) 	<ul style="list-style-type: none"> Interview growers within region on protected cropping/substrate production experiences for video (December 2018) Assist in advertising, sourcing speakers and participate in webinars as required (ongoing) 		
	Conduct workshops and field days to increase understanding of new	<ul style="list-style-type: none"> Advertise and communicate outcomes of field walks and field days through communication platforms including 		<ul style="list-style-type: none"> Stanthorpe runner grower harvest inspection (March 2018) 		<ul style="list-style-type: none"> Organise workshop on Hort Code of Conduct for WA (March 2018) 	<ul style="list-style-type: none"> Strawberry Academy workshop 3 (Irrigation) to be held on 22nd August

MECHANISM	ACTIVITY	NATIONAL COORDINATION (BS15002)	JULY 2018	SUB-TROPICAL REGIONAL DELIVERY PARTNER (BS15003)	JULY 2018	TEMPERATE REGIONAL DELIVERY PARTNER (BS15004)	JULY 2018
	practices and regulatory requirements	website, SimplyRed and The Punnet e-News		<ul style="list-style-type: none"> Organise workshop on labour management, labour hire company licensing and Hort Code of Conduct (March 2018) Organise workshop on food safety (April 2018) Organise workshop for Stanthorpe production region - topics TBC (June 2018) Organise workshop for Bundaberg production region - topics TBC (June 2018) Organise farm walk at Red Jewel (Sept 2018) Plug plan production in table tops – grower visit in September 2018 Bundaberg Innovation Tour including export, value addition and automation (November 2018) Organise workshop on biosecurity (featuring speakers such as Jess Lye from Ausveg) (November 2018) 		<ul style="list-style-type: none"> Organise workshop on Hort Code of Conduct and Fair Farms Initiative for Vic growers (April 2018) Organise Strawberry Academy training (in conjunction with VSIDC) March 2018 and ongoing Organise farm walk at Blue Hills (protected cropping) (March 2018) Organise workshop on HARPS (April 2018) Organise workshop on food safety (April 2018) Organise Strawberry Forum (May, 2018) Organise workshop on biosecurity (featuring speakers such as Jess Lye from Ausveg) (July 2018) VSGA AGM and farm walk (October 2018) Wandin Silvan Field Day (12-13 October 2018) 	<ul style="list-style-type: none"> Plans to run event for women on financial and succession planning (September).
	Conduct networking events and regional tours.	<ul style="list-style-type: none"> Advertise and communicate industry networking events through communication platforms including website, SimplyRed and The Punnet e-News Advertise and communicate regional and international study tours through communication platforms including website, SimplyRed and The Punnet e-News Organise and chair Program Reference Group meetings (August 2018 and February 2019) 	<ul style="list-style-type: none"> Organise Program Reference Group Meeting (August) Provide co-ordinators update at PRG meeting 	<ul style="list-style-type: none"> Facilitate Sub-Tropical grower participation in Temperate Autumn Strawberry Forum (May, 2018) QSGA Annual Dinner and Awards (May 2018) Sandstone Point Hotel Strawberry Festival (August 2018) Organise Ladies Event (October 2018) Participate in Program Reference Group Meetings (August 2018 and February 2019) 	<ul style="list-style-type: none"> Women in industry event - ? (October) Provide regional update at PRG meeting in August 	<ul style="list-style-type: none"> Horticulture Industry Innovation Network (HIIN) Meetings Ongoing beginning 5-7 March 2018) Women in Horticulture International Women's Day Dinner (8 March 2018) VSGA Women in Industry Dinner - speaker Rachel McKenzie, Growcom (April 2018) VSGA Ladies tour to Agribio (May 2018) Hydroponic Farmers Federation 11th Biennial Conference 25-27 June 2018 Victorian Strawberry Ball and Industry Awards (July 2018) Participate in Program Reference Group Meetings (August 2018 and February 2019) 	<ul style="list-style-type: none"> Women in industry event - financial management (September) Provide regional update at PRG meeting in August
Industry coordination	Establish and facilitate grower groups to encourage learning and practice change	<ul style="list-style-type: none"> Promote thematic group areas and opportunities through communication platforms including website, SimplyRed and the Punnet e-News, with targeted engagement to Regional IDOs. 		<ul style="list-style-type: none"> Engagement and facilitation of Women's Network Sustained liaison with existing industry groups including Food and Agribusiness Network Sunshine Coast, Innovation Centre Continued scoping of opportunities for new grower groups 		<ul style="list-style-type: none"> Establish Innovative growers group Re-establish Women in Industry groups 	

MECHANISM	ACTIVITY	NATIONAL COORDINATION (BS15002)	JULY 2018	SUB-TROPICAL REGIONAL DELIVERY PARTNER (BS15003)	JULY 2018	TEMPERATE REGIONAL DELIVERY PARTNER (BS15004)	JULY 2018
	Facilitate a community of practice to share ideas, lead change and provide feedback on the efficacy of the program	<ul style="list-style-type: none"> Support and engagement of researcher community of practice group to enable structured sharing of research findings across industry through communication platforms including website, SimplyRed and the Punnet e-News 	•	<ul style="list-style-type: none"> Continue coordinated engagement of relationships in breeding program, runner growers and Sub-Tropical industry Identify and engage relevant industry stakeholders for protected cropping/soil-less media CoP 		<p>Ongoing:</p> <ul style="list-style-type: none"> Engagement of relationships in breeding program, runner growers, VSICA and temperate industry Biosecurity CoP - collaboration with AusVeg Biosecurity, Regional Fruit Fly coordinator, VegNet Gippsland and LGAs Yarra Valley QFF CoP - Biosecurity Centre of Excellence, DEDJTR, YV PFPF, Regional Fruit Fly Coordinator, soft fruit growers Regional solutions for waste management CoP - YV Agribusiness, Shire of Yarra Ranges, Recycling facilities <p>New:</p> <ul style="list-style-type: none"> Identify and engage relevant industry stakeholders for protected cropping/soil-less media CoP 	<ul style="list-style-type: none"> HIIN meeting to be held at SunnyRidge
Communications	Facilitate learning from leading growers through 'stories of success'	<ul style="list-style-type: none"> Develop resources on market development opportunities (October 2018) Edit and populate case studies into project template Distribute case studies through communication channels including The Punnet e-News Publish case studies, as appropriate, in SimplyRed magazine Upload case studies to strawberry innovation website 		<p>Export experience grower profiles to be developed:</p> <ul style="list-style-type: none"> Di West – Pacific and New Zealand (June 2018) Ray Daniels (September 2018) 		<p>Export experience grower profiles to be developed:</p> <ul style="list-style-type: none"> Jamie Michael (September 2018) 	
Knowledge Transfer	Conduct networking events, regional tours and e-learning.	<ul style="list-style-type: none"> Organise webinar on market development opportunities and outcomes of export strategy (featuring Karl McIntosh) (July 2018) Advertise and communicate industry networking events through communication platforms including website, SimplyRed and The Punnet e-News Advertise and communicate regional and international study tours through communication platforms including website, SimplyRed and The Punnet e-News 	•	<ul style="list-style-type: none"> Organise workshop on market development opportunities (featuring QDAF, Karl McIntosh, outcomes of export strategy) (April 2018) Assess interest in export orientated study tours 	<ul style="list-style-type: none"> Facilitate market access opportunities to Hong Kong market including consistent branding, grower expectations. Information to be shared with national industry 	<ul style="list-style-type: none"> Organise workshop on market development opportunities (featuring Karl McIntosh, outcomes of export strategy) (June 2018) Assess interest in export orientated study tours 	•
Communication	Prepare regular updates on national issues, runner production, variety trials and industry profiles	<ul style="list-style-type: none"> Maintain centralised database on strawberry growers and industry associations 	•	<ul style="list-style-type: none"> Update centralised database with new and revised grower and industry associate contacts 	•	<ul style="list-style-type: none"> Update centralised database with new and revised grower and industry associate contacts 	•
Industry Coordination	Undertake industry analysis to enable better planning and development of the Australian strawberry industry	<ul style="list-style-type: none"> Consult with PHA and SAI on the development of a proposal for updating the national biosecurity plan (collaborate with WA who are currently updating their biosecurity plan) (March 2018) 	•	<ul style="list-style-type: none"> Liaise with QSGA to extract industry data directly from fruit producers through membership base. Continue engagement with sub-tropical runner producers for improved data sharing. 	•	<ul style="list-style-type: none"> Continue engagement with Toolangi Coop for improved data sharing, as well as emerging nursery producers in Tasmania, SA and WA Consult with runner growers in temperate region on collation of 	•

MECHANISM	ACTIVITY	NATIONAL COORDINATION (BS15002)	JULY 2018	SUB-TROPICAL REGIONAL DELIVERY PARTNER (BS15003)	JULY 2018	TEMPERATE REGIONAL DELIVERY PARTNER (BS15004)	JULY 2018
		<ul style="list-style-type: none"> Develop proposal on benchmarking within industry if sufficient interest (May 2018) Support data analysis as appropriate Share analysed data and relevant information across national industry as appropriate through communication platforms including website, SimplyRed and The Punnet e-News 		<ul style="list-style-type: none"> Consult with industry members on interest in conducting benchmarking within strawberry industry (May 2018) 		<ul style="list-style-type: none"> runner data and ability to use it for industry analysis purposes Published findings of VSIDC charcoal rot project to be shared across temperate region. Consult with industry members on interest in conducting benchmarking within strawberry industry (May 2018) 	
Communications	Prepare regular updates on national issues, runner production, variety trials and industry profiles	<ul style="list-style-type: none"> Develop information sheets on strawberry varieties for use by industry members within both domestic and export markets (August 2018) Extension of consumer insight research and other health benefit information through hard and soft copy publications as available (including website) 		<ul style="list-style-type: none"> Develop pre-harvest runner inspection report on plant quality/issues for distribution to sub-tropical growers prior to planting (Feb/Mar 2018). Submit relevant consumer insight research and other health benefit information to publications as appropriate. Liaise with Australian breeding program and runner growers to collate information for variety fact sheets (August 2018). 	<ul style="list-style-type: none"> Produce variety fact sheets from the ASBP including Sub Tropical and Temperate Node varieties 	<ul style="list-style-type: none"> Submit relevant consumer insight research and other health benefit information to publications as appropriate. Liaise with Australian breeding program and runner growers to collate information for variety fact sheets (August 2018). Support VSIDC PR and marketing project, promoting Strawberry health benefits and the industry's sustainable practices 	



IMPACT INNOVATION

GROUP

Plastic Waste Challenge Report

How can we repurpose the plastic waste produced by farming? (reduce / reuse / recycle)

This challenge event was part of:



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Government**

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Contents

1 Workshop Agenda	3-4
2 Ideation: Ideas Captured on Post-it Notes	5
3 Opportunity Statements	6-8
3.1 Cleaning Plastic	
3.2 Technologies	
3.3 Industry Engagement and R&D	
3.4 Education, Alternatives and On-Farm Trials Pilot	
3.5 Investment and Stewardship – Whole Supply Chain	
4 Next Steps	9



Figure 1 Photo from Sunray Farm field trip

1 Workshop Agenda

7:15 Meet at Caboolture Hub

7:30 Bus leaves

8:00 On-farm Demonstration at Sunray Farm



Figures 2-4 Sunray Farm field trip

9:30 Bus returns

10:00 **Challenge Workshop Part One**

- Workshop overview
- Objectives
- Revisiting the briefing
- What solutions exist?
 - Stephen Richards
 - Georgina Davis



Figure 5 Overview and Briefing

10:30 Morning Tea

10:45 **Challenge Workshop Part Two**

- Real solutions on-farm
 - Ideas
 - Discussion
 - Voting
-

12:15 Lunch

12:30

Challenge Workshop Part Three

- Development of solutions
- Solution presentations
- Support and next steps
 - Regional Development Australia
 - Department of Environment and Heritage Protection
 - Department of Science, Information Technology and Innovation
 - Queensland Strawberries



Figure 6 Participants during Overview and Briefing

2 Ideation: Ideas Captured on Post-it Notes

Participants shared ideas related to the challenge by writing them on post-it notes. In group discussion, preliminary duplicates were combined and additional ideas were recorded. These were categorised into themes.

Over 97 ideas and idea fragments were presented within 13 themes. Participants were asked to vote on themes using stickers and 5 themes were developed further.

Theme	Votes
Decontamination and Cleaning	30
Technologies for Disposal	24
Plastic Industry Engagement and R&D	23
Education and R&D Trials	22
Alternatives to Plastics On-Farm	22
Investment/Stewardship (Whole of Supply Chain)	22
Regional Economics and Collection	18
Removal and Cleaning	10
Market	9
New Plastic or Biodegradable Products	9
Change	4
R&D LCA Cost/Benefit	3
Others	1



Figure 7 Ideation in progress

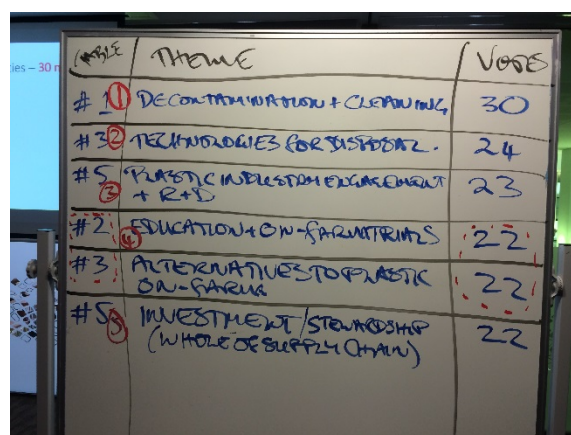


Figure 8 Top 5 themes selected

3 Opportunity Statements

Based on voting and further discussion with participants Opportunity Statements were developed for 5 themes. The below subsections are direct transcriptions from the Opportunity Statement posters created in groups.

Groups were asked to create statements with the following elements:

- Name
- What will it do?
- How will it work?

3.1 Cleaning Plastic

1. Clean on farm techniques
 2. Education and inventives
 3. Tools or machinery
 4. Storage and handling off farm
-

1. Proven technology
2. Cost effective
3. Quality control / material: re-use applicability

3.2 Technologies

What will it do?

- Reuse on farm
- Local production – jobs!
- Material eff.

How will it work?

- Funding
- R&D
- Techno economics analysis
- Life cycle analysis

Process to be remoulded to be put back into the local community

- Seats
- Rubbish bins
- Crates
- Strawberry picking carts
- Canapy shade
- Pedals and tanks

3.3 Industry Engagement and R&D

What will it do?

- Cohesive supply chain
- Reduce costs
- Learning from others -> realise opportunities
- Design for purpose and reprocess

How will it work?

- Link to #2 and #3
- Broad national issue / regional issue
- Community engagement
 - On-farm best management practice
 - Industry quality assurance
 - ISO
 - Green credentials



Figure 9 Opportunity statement presentation

3.4 Education, Alternatives and On-Farm Trials Pilot

What will it do?

- Identifying needs and benefits of plastic mulch
 - Clean fruit
 - Water conservation
 - Weed control
- Identify alternative products to meet needs
- Evaluate cost benefits and practicality
- Explore alternative farming processes

How it will work?

- Literature research
- Evaluate options and alternatives
- Engage with industry an viability
- Engage with other industries/groups (eg. Plastics)
- Research funding/grant opportunities
- Industry education of current practice shortfalls
- On-farm trials and field days/farm walks

3.5 Investment and Stewardship – Whole Supply Chain

Investment

Government - due to the health benefits of produce produced offset against cost of producing the products. Either subsidise a facility to process or assist with cost overseas processing.

If a levy was introduced ultimately the cost would be more expensive to produce.

Food security and ecology + environmental

Please note that the above opportunity statements were created as a part of the activity do not necessarily reflect the intention of government or any other organisation.



Figure 10 Film and tape collection on Sunray Farm



Figure 11 The collected waste



Figure 12 Explanation of the farm's custom machinery



Figure 13 The group discussing Ray's custom machinery

4 Next Steps

To maintain momentum it is recommended that the following steps be undertaken for the opportunities:

1. A leadership group is formed (already started on the day as instigated by Anthony Dow)
 - this is intended to consist of a diverse, motivated sub-set of the workshop participants
2. Leadership group to meet, review the ideas & outcomes from the day and identify viable project/s
3. Project champions to be selected from the leadership group or sourced externally by the group
4. Brief project plans to be developed for each of the projects that cover:
 - a. project objective,
 - b. activities to support/execute the project,
 - c. personnel and other resources,
 - d. timeline for activities.
5. Funding opportunities for the selected projects to be discussed with the Department of Environment and other suitable funding bodies

Once project plans are prepared then a series of monitoring and review activities will be required to make decisions as to if these opportunities should continue to be progressed.



Figure 14 Department of Environment and Heritage Protection



Figure 15 Regional Development Australia Moreton Bay

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QUEENSLAND STRAWBERRY
GROWERS' ASSOCIATION

Qld Strawberry Industry Field Day Program 2017

Horticulture
Innovation
Australia

This project has been funded by Horticulture Innovation Australia Limited using the strawberry levy and funds from the Australian Government

Welcome to the Queensland Strawberry Industry Field Day 2017

Held bi-annually, this event is an opportunity for the businesses from the local region and further afield that are associated with our industry to showcase their products and services. We hope that you enjoy your day and come away with some new ideas that will benefit your business.

A very special thanks to Ray Daniels and the team at Sunray Strawberries/Berry Yummy Marketing for allowing us to run this event at Sunray Strawberries, and for all the assistance provided to ensure that the event runs smoothly. Please ensure that you respect the hospitality by adhering to any signage around the farm as to areas you can and can't access.


And a huge thank you to The Pump House for your sponsorship of the Field Day. Your generosity is very much appreciated by all.


Tea and coffee, cold drinks and snacks will be available for sale throughout the day, and the Wamuran Mens Shed will be on site all day for hot food and drinks. And stick around as the raffle will be drawn at 3pm.




We hope you have a great day!

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EXHIBITORS

BUSINESS NAME AND CONTACT DETAILS

AIS Greenworks

Leading Australian owned and operated solutions provider for the protected cropping industry, providing design, manufacturing, installation and maintenance services.

Dirk Sprangers | Ph: 0447 661 544 | Email: dirk.sprangers@aisgreenworks.com

Australasia Scales

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Ph: 1800 SCALES | Email: sales@australasiascales.com.au

Austsafe Super

The industry super fund for rural and regional Australia.

Bruce Waltisbuhl | Ph: 0400 995 824 | Email: bwaltisbuhl@austsafe.com.au

Barmac Pty Ltd

Supplier of pest control, plant protection and nutrition products.

Renier Scheepers | Ph: 0419 504 716 | Email: rscheepers@barmac.com.au



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Tasmania	John Garwood	0475 832 401

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BASF

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Greg Haslam | Ph: 0437 413 449 | Email: gregory.haslam@basf.com

Berry Yummy Marketing

Distribution and marketing business for strawberries.

Rod Spackman | Ph: 0498 171 788 | Email: rod@berryyummy.com.au

Cravo

Retractable roof greenhouses to increase yields by optimising the growing environment and protecting crops.

Bede Miller | Ph: 0477 993 332 | Email: bedem@cravo.com

EXHIBITORS

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Expert365 Precision agriculture tools for farming. Niranjan Balikai Ph: 0433 537 600 Email: niran.balikai@expert365.com.au
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IN-FIELD DEMOS AND FARM TOURS

TIME	DEMO/TOUR	PRESENTED BY
9.30am	Seasonal update, current IPM strategies and aerial bug dispersal demonstration	Paul Jones, Bugs for Bugs and Nathan Roy, Aerobugs
10.00am	Farm tour of current / trial Plant Sciences Inc. varieties	Ray Daniels, Berry Yummy Marketing
10.30am	Silvan Air Boom Sprayer demo plus presentation of Silvan spray boom for tabletop production	David Evans Group
11.00am	Farm tour to Red Jewel Research Farm	Jodi Neal, DAF and Elise Pike, Red Jewel Nursery
11.30am	Kubota Mouldboard plough demo	David Evans Group



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BUSINESS NAME AND CONTACT DETAILS

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Michael Bevege | Ph: 5494 6166 | Email: mbevege@thepumphouse.com.au

Tractors Machinery Implements

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Shane Griffiths | Ph: 0488 722 867 | Email: shane@tractorshop.com.au

Tradecorp Australia

Experts in crop nutrition, particularly micronutrients and plant biostimulation. Manufacturers and distributors of specialty fertilizer and crop nutrition products.

Johnny Hojmark-Anderson | Ph: 0499 885 111 | Email: jhojmark@tradecorp.sapec.pt

Wamuran Produce & Hardware / Norco Rural

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Ross Schulz | Ph: 5496 6500 | Email: rschultz@suncoastrural.com.au

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Alexandra Gunn | Ph: 0418 468 427 | Email: alex.gunn@wfi.com.au

PRESENTATIONS – TECH TENT

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TIME	TOPIC	PRESENTED BY
10.45am	Update on new varieties out of the Australian Breeding Program (followed by farm tour to Red Jewel Research Farm)	Dr Jodi Neal, DAF
12.30pm	Biofumigant cover crops	Julie O'Halloran, DAF
1.00pm	Your invisible free army in the soil – how to cultivate a sustainable farming system	Heinz Gugga, Organica Australia
1.15pm	Fertigation – Methods and efficiencies	Michael Bevege, The Pump House
1.30pm	Transitioning from soil to growing media	Powerplants
2.00pm	Decision support moisture monitoring and irrigation automation.	Niran Balikai, Expert365
2.15pm	Selontra Soft Bait Rodenticide and Serifel, a new biological fungicide	Greg Haslam, BASF
2.30pm	Hort360 Technology program	Rowena Beveridge, Growcom
2.45pm	Barmac Strawberry Fertiliser Options	Chris Poletto, Barmac



PRESENTATIONS – BUSINESS TENT

Industry Relations and Business Information Session

TIME	TOPIC	PRESENTED BY
9.30am	General update on Workplace Health and Safety policies/issues	Dean Matthews, WH&S Qld
9.45am	Freshcare update	Anna Geddes, Growcom
10.00am	Understanding the new Hort Code.	Cynthia Tuppicoff, ACCC
10.15am	General policy update on IR and Biosecurity. Overview of Fair Farms initiative inc. info on ethical workers certification being developed by Growcom and Freshcare.	Rachel Mackenzie, Growcom
10.45am	Lawful remuneration, contracting and subcontracting responsibilities and clarification of standard week hours inc. question time.	Rebecca Wawiluk, Dept of Immigration and Border Protection
11.15am	General update on Fair Work Ombudsman news and grower obligations. Inc question time.	Robert Evans, Fair Work Ombudsman
12.30pm	Employment incentives – making sense of it.	Michelle Templin, Growcom
1.00pm	Update on the Sweetest Job campaign and labour hire options.	Kris McCue, The Job Show
1.15pm	AgriVeterans program - bridging the gap between deployment and employments of our ex-servicemen and women.	Peter Thatcher, Agrivets
1.30pm	Farm & Square – a free, alternative choice for businesses & workers to communicate on an internet platform.	Caleb Tan, Four & Square Pty Ltd

FIELD DAY EVALUATION – Wednesday, 5th July 2017

Priority areas	Performance measure	Evaluation measure	Achievement
Runner quality – new varieties	New varietal information shared with growers and access to the plant and fruit of new varieties regularly available for growers to evaluate first hand.	<p>Growers attendance at presentation on new varieties.</p> <p>Growers participation in farm walk to view new varieties in field for discussion and evaluation of taste / appearance / disease resistance etc.</p>	<p><u>Presentations:</u></p> <p>Dr Jodi Neal, DAF – Update on new varieties out of the Australian Breeding Program.</p> <ul style="list-style-type: none"> • 15 growers attended <p><u>Farm walks:</u></p> <p>Ray Daniels, Sunray Strawberries – Bus tour and farm walk of Sunray Strawberries trial plots showcasing current trial varieties being grown at the farm.</p> <ul style="list-style-type: none"> • 22 growers participated. <p>Dr Jodi Neal, DAF - Farm walk at Red Jewel Research Farm, featuring all current and trial varieties produced by Red Jewel Nursery.</p> <ul style="list-style-type: none"> • 18 growers participated.
Substrate production and protected cropping	Build capacity and support growers to transition to new production techniques by providing information on costs of production and production techniques	<p>Exhibitors on site to speak directly with growers to discuss individual needs and answer specific questions relating to substrate production and protected cropping.</p> <p>The latest R&D information available to growers in regards to substrate production and protected cropping.</p>	<p><u>Exhibitors on site:</u></p> <ul style="list-style-type: none"> • AIS Greenworks • Cravo • Powerplants Australia • Quedan Australia <p><u>Presentations:</u></p> <p>Powerplants Australia - Transitioning from soil to growing media</p> <ul style="list-style-type: none"> • 11 growers attended.
IPM	Provide growers with the latest information and strategies for IPM.	The latest R&D information and technology available to growers in regards to IPM.	<p><u>Demonstration:</u></p> <p>Nathan Roy, Aerobugs – Aerial bug dispersal demonstration.</p> <p><u>Presentations:</u></p> <p>Paul Jones, Bugs for Bugs – Seasonal update and current IPM strategies.</p> <ul style="list-style-type: none"> • 16 growers participated.

Key priority areas	Performance measure	Evaluation measure	Achievement
Irrigation management	Growers have access to the latest information and technology for irrigation techniques and equipment.	<p>Exhibitors on site to speak directly with growers to discuss individual needs and answer specific questions relating to irrigation management plans.</p> <p>The latest technology available to growers in regards to irrigation.</p>	<p><u>Exhibitors on site:</u></p> <ul style="list-style-type: none"> • Expert365 • Netafim • Rivulis • The Pump House <p><u>Presentations:</u></p> <p>Michael Bevege, The Pump House – Fertigation, methods and efficiencies.</p> <p>Niran Balakai, Expert365 – Decision support moisture monitoring and irrigation automation.</p> <p>Rowena Beveridge, Growcom – Hort360 Technology program.</p> <ul style="list-style-type: none"> • <i>Between 8 to 15 growers attended each presentation.</i>
Chemical and biological controls	Growers have access to the latest information about new chemistry and biological controls for strawberry production.	<p>Exhibitors on site to speak directly with growers to discuss individual needs and answer specific questions relating to chemical control measures and biological options.</p> <p>The latest R&D information available to growers in regards to chemistry and biological controls.</p>	<p><u>Exhibitors on site:</u></p> <ul style="list-style-type: none"> • Barmac • BASF • Elders Rural Services • Katek Fertilisers • Organica Australia • Tradecorp Australia • Norco Rural <p><u>Presentations:</u></p> <p>Julie O'Halloran, DAF – Biofumigant cover crops.</p> <p>Heinz Gugger, Organica Australia – Your invisible free army in the soil – how to cultivate a sustainable farming system.</p> <p>Greg Haslam, BASF – Selontra Soft Bait Rodenticide and Serifel, a new biological fungicide.</p> <p>Chris Poletto, Barmac – Barmac Strawberry Fertiliser options.</p> <ul style="list-style-type: none"> • <i>Between 8 to 15 growers attended each presentation.</i>

Key priority areas	Performance measure	Evaluation measure	Achievement
Machinery, implements and equipment	Access to the latest in machinery, farming implements and other equipment for strawberry production.	On site exhibitors showcasing machinery, farming implements and packing shed equipment, available to growers to discuss specific needs and answer specific queries. In field demonstrations of farming machinery and implements.	<p><u>Exhibitors on site:</u></p> <ul style="list-style-type: none"> • Australasia Scales • David Evans Group (DEG) • GDM Farm Equipment • North Pine Motors • Tractors Machinery Implements (TMI) <p><u>Demonstrations:</u></p> <p>DEG - Silvan Air Boom Sprayer demo inc. for tabletop production.</p> <p>DEG - Kubota Mouldboard plough demo</p> <ul style="list-style-type: none"> • <i>Up to 20 growers in attendance at each demonstration.</i>
Business and understanding regulatory requirements.	Access to a variety of businesses and key government departments/regulators.	Exhibitors on site to speak directly with growers to discuss individual needs and answer specific questions. The latest information available to growers in regards to business related aspects of strawberry production. All speakers available to meet with growers and discuss specific needs and issues directly.	<p><u>Exhibitors on site:</u></p> <ul style="list-style-type: none"> • AustSafe Super • Berry Yummy Marketing • Elders Rural Services • Growcom • WFI <p><u>Presentations:</u></p> <p>Dean Matthews, Workplace Health and Safety Qld – General update.</p> <p>Anna Geddes, Growcom – Freshcare update.</p> <p>Cynthia Tuppicoff, ACCC – Understanding the new Hort Code.</p> <p>Rachel Mackenzie, Growcom – Biosecurity, IR policy and Fair Farms.</p> <p>Rebecca Wawiluk, Dept of Immigration and Border Protection - Lawful remuneration, contracting and subcontracting responsibilities.</p> <p>Robert Evans, Fair Work Ombudsman - Fair Work Ombudsman news and grower obligations.</p> <p>Michelle Templin, Growcom - Employment incentives</p> <p>Kris McCue, The Job Show - Sweetest Job campaign -labour hire options.</p> <p>Peter Thatcher, Agrivets - AgriVeterans program</p> <p>Caleb Tan, Four & Square Pty Ltd - Alternative choice for businesses & workers to communicate on an internet platform.</p> <ul style="list-style-type: none"> • <i>Between 10 to 30 growers attended each presentation.</i>

Conference Program



Monday 12 th February 2018		Venue: Ballroom	
5.00 pm	Exhibition opens Country Club Tasmania		
6.00 pm – 8.00 pm Welcome Reception held in Exhibition Hall			
Proudly sponsored by Woolworths			
Tuesday 13 th February 2018		Venue: Mount Pleasant room	
Master of Ceremonies - Ashley Walmsley (Good Fruit and Vegetables)			
8.30 am – 9:00 am	Welcome - Simon Dornauf, Conference Chair		
9.00 am – 9:30 am	Insights into the Berry Industry in United Kingdom – Marion Regan (Hugh Lowe Farms)		
9.30 am – 10:00 am	An overview of the Australian berry industry – Simon Dornauf, Hillwood Berries		
10:00 am - 10:30 am Morning break in Exhibition Hall			
Proudly sponsored by Tasmanian Institute of Agriculture			
10.30 am – 11.00 am	How we breed berries in the USA Northwest and new breeding approaches – Dr Chad Finn (USDA Oregon)		
11.00 am – 12.30 pm	The changing retail landscape – Tristan Kitchener, followed by retailers panel: Warwick Hope (Woolworths), Simon Mandelbaum (Coles), Costco, Hello Fresh and others		
12:30 pm - 1:30 pm Lunch break in Exhibition Hall			
	TONIC ROOM	TERRACE ROOM	MOUNT PLEASANT ROOM
1:30 pm – 2:00 pm	Reducing biosecurity risk in planting material John McDonald (Nursery & Garden Industry Australia)	Latest developments in Berry IPM Lachlan Chilman (Biological Services)	Berry Industry emergency response to biosecurity incidences Susanna Direseen (Plant Health Australia)
2:00 pm – 2:30 pm	Strawberry certification and runner research Dr Frank Greenhalgh (VIC Strawberry Industry Certification Authority)	Beneficial micro-organisms for control of berry diseases Dean Metcalf (Metcalf Biocontrol Australia)	SWD What will it mean when it arrives? Paul Horne (IPM Technologies)
2:30 pm – 3:00 pm	Berry breeding and propagation for speed Karen Brock (Brocklands Nursery)	Red drupelet disorder in blackberries Max Edgley (Tasmania Institute of Agriculture)	Managing crises: One industry's experience Diane Fullelove & Associates (Aust Melon Association)
3.00 pm – 3.30 pm Afternoon break in Exhibition hall			
3:30 pm – 4:00 pm	Accessing international markets for Australian berries Luke Osborne (Australian Dept Agric & Water Resources)	Varietal trends in blueberries overseas and in Australia Ridley Bell (Mountain Blue Farms)	Moisture balance control in substrate Dirk Prins (Priva)
4:00 pm – 4:30 pm	Potential for Australian Blueberries in China Anthony Poiner (Australian Blueberry Growers' Association)	Australian strawberry breeding program update Jodie Neal (QLD Dept of Agriculture & Fisheries)	Getting the best out of substrate Jacco Hoogendoorn (Legro)
4:30 pm – 5:00 pm	Phytosanitary irradiation: Export opportunities and advantages Ben Reilly (Steritech)	New blackberries from North America Dr Chad Finn (US Dept of Agriculture)	Blueberry and strawberry production systems inside automatic greenhouses Luis Gaxiola (Cravo)
6.00 pm – 9.00pm ‘Taste of Tasmania’ Dinner Josef Chromy Winery			
Proudly sponsored by Steritech			

Wednesday 14th February 2018

Venue: Mount Pleasant room

Master of Ceremonies - Ashley Walmsley (Good Fruit and Vegetables)

8.30 am – 9:00 am	Using robotics in horticulture – Carla Brown (Field Robotics)
9.00 am – 9:30 am	Berry grower experiences: from soil to substrate – Alan Bissett (Wee Red Barn, NZ)
9.30 am – 10:00 am	Sharing experiences of growing in substrate – George Jessett (Costa Group), Simon Dornauf (Hilwood Berries), Dave Fairwaether (Taste n See), Ian Mungall (Red Jewel), Allan Bissett (Wee Red Barn, NZ)

10.00 am – 10:30 am Morning break in Exhibition Hall

10.30 am – 11:00 am	Can using Artificial Intelligence help us grow the perfect berry – Ros Harvey (The Yield Technology Solutions)
11.00 am – 11.20 am	Industry marketing and promotion – Elisa Tseng (Hort Innovation)
11.20 am – 11.40 am	Domestic blueberry marketing: lessons for all berries – Alex Smith (Australian Blueberry Growers Association)
11.40 am – 12.30 pm	The future of marketing berries – Jeff Matthews (YV Fresh), Lee Carnemolla (Perfection Fresh), Brendon Lai (Fresh Produce Group), Natalie Bell (Mountain Blue Farms), Elisa Tsing (Hort Innovation)

12:30 pm – 1:30 pm Lunch break in Exhibition Hall

	TONIC ROOM	TERRACE ROOM	MOUNT PLEASANT ROOM
1:30 pm – 2:00 pm	Supercharged Air – a potential postharvest technology for dry sanitisation of berries Dr Sukhvinder Pal Singh (NSW Dept of Primary Industries)	Charcoal rot in Strawberries David Oag (QLD Dept of Agriculture & Fisheries)	Hort Frontiers - Solving tomorrow's challenges today Stuart Burgess (Hort Innovation)
2:00 pm – 2:30 pm	Certification systems for market access Clare Hamilton-Bate (Freshcare)	What do we know about pollination in protected cropping? Dr Lisa Evans (NZ Plant & Food Research Institute)	Blueberry rust: what have we learnt from the NSW experience Rosalie Daniel (NSW Dept of Primary Industries)
2:30 pm – 3:00 pm	Seeking a social licence Gurmesh Singh (Australian Blueberry Growers' Association)	Impact of plastic on protected berry growing Tom De Smet (RKW HyPlast)	A systems-based approach to safeguard berry crops Prof Ioannis Tzanetakis (Univ of Arkansas)

3.00 pm – 3.30 pm Afternoon break in Exhibition hall

3.30 pm – 4:15 pm	Managing labour issues in the berry industry and updates on Horticultural Code of Conduct – Rachel Mackenzie (Growcom)
4.15 pm – 5:00 pm	Sourcing and managing labour – Andrew Bell (Mountain Blue Farms), Peter Angel (MADEC), Rachel Mackenzie (Growcom), Simon Dornauf (Hilwood Berries)

6.00 pm – 10.30 pm Conference dinner – Country Club

Proudly sponsored by Perfection Fresh

The presenters, topics and times are correct at the time of printing and, in the event of unforeseen circumstances, the Conference Committee reserves the right to alter or delete items from the program.



Export priority issue

An export specific forum was held on 23 April 2018 at the Caboolture Hub. 12 people attended the workshop. The workshop was aimed at sharing some key information from the Australian Government funded Package Assisting Small Exporters (PASE) project as well as learning about other export options.

Speakers and agenda items included:

- Outcomes from the PASE (Australian Government) Indonesia export project (Bron Ford and Clinton McGrath, DAF)
- A cooperative approach to exporting vegetables (Karl McIntosh, RMCG)
- Consumer research outcomes – PASE project (Dr Robin Roberts, Griffith University)
- Irradiation as a treatment option for Fruit fly (Ben Reilly, Steritech)

Key export related activities that followed this workshop included:

- Development and successful implementation of a second export project – focused on Hong Kong and Indonesia markets. The project utilised a collaborative model of project implementation, which had the following attributes:
 - Three strawberry businesses direct involvement and project collaborators
 - Four strawberry representatives from three businesses actively involved in the In-market visit to Hong Kong and Jakarta
 - Five trial shipments to four different companies in Hong Kong, Macau and Indonesia
 - Queensland Strawberry Growers Association and Queensland Strawberry Industry Promotions Council providing project management and implementation support
 - Extension and communication activities conducted with support from Queensland Strawberry Growers Association and Resource Management Consulting Group (RMCG)
 - Significant support from Clinton McGrath and Bronwyn Ford from the Department of Agriculture and Fisheries.
 - Development of export specifications for “Red Rhapsody” targeted at buyers and consumers
 - Significant media and industry communications activities conducted including 15 articles published in media or Simply Red.
 - Exports valued at \$121,000 conducted in 2019 as a direct result of this project.
 - Monitoring and evaluation was conducted following the development of a program logic based monitoring and evaluation plan – see attached.

Participant Evaluation

Hong Kong and Jakarta
June 2018

Clinton McGrath, Senior Extension Horticulturalist, DAF

Bron Ford, Senior Agribusiness Development Officer, DAF



Background

The Queensland strawberry industry has a farm gate value of \$207.66m and 41% of national production occurs in the state. Only 1.5% of Queensland produced fresh strawberries are currently exported (Australian Horticulture Statistics Handbook 2016/17).

An “in-market” tour of Hong Kong (China) and Jakarta (Indonesia) was coordinated as part of the project requirements for the project “Capitalising on market access to export Queensland strawberries to Hong Kong and Indonesia”. This project was funded by the Queensland Government through the Growing Queensland Food Exports Program and delivered by Queensland Strawberry Growers Association (QSGA) with support from Queensland Department of Agriculture and Fisheries (DAF).

The objective of the project is to:

1. Map and walk the supply chain to identify barriers, blockages, difficulties and other requirements in each of the two markets (Indonesia and Hong Kong)
2. Identify consumer purchasing and consumption habits in each of these markets
3. Undertake an assessment of the key Queensland strawberry competitors
4. Engage the whole Queensland strawberry industry (and the broader Australian strawberry industry) via a targeted and extensive extension program

5. Use a **collaborative model** of project implementation involving three influential Queensland strawberry growers, financial support from the Queensland Strawberry Growers Association, in-kind support from the Queensland Strawberry Industry Promotions Council, RMCG and DAF.

This report builds on the comprehensive “monitoring and evaluation” plan that was developed for this project in April 2018 and is focussed on evaluating participant feedback from the in-market visit. Other reports that will be developed and submitted as part of milestone requirements include:

1. Development of export specification – due October 2018
2. Map the supply chain (Australia to Hong Kong) – due October 2018
3. Key Consumer analysis – due March 2019
4. Key competitor analysis – due March 2019

The in-market visit was conducted June 2018 and involved a delegation of eight representatives:

- Luigi Coco (A&E Coco and Sons)
- Charmaine Davey (Berry Patch Marketing)
- Brendon and Ashleigh Hoyle (Ashbern Farms)
- Jennifer Rowling (QSGA)
- Robin Roberts (Griffith University) NB: Jakarta only

DAF

- Clinton McGrath (Senior Extension Horticulturalist)
- Bronwyn Ford (Senior Agribusiness Development Officer)



The activities

The comprehensive itinerary for the in-market visit included the following activities:

1. Meeting Government representatives from Austrade and TIQ

2. Strawberry competitor and price analysis at 17 different retail outlets and main wholesale market in Hong Kong
3. Meeting with various importers and fresh produce manager representatives from major supermarkets
4. Interviews conducted with strawberry consumers
5. Implementing four trial shipments of Queensland strawberries to Hong Kong and Jakarta including turnout assessments.

Figure 1 - Summarises the details associated with the formal meetings conducted during the in-market visit to Hong Kong and Indonesia.

Organisation	Name	Position	Type of business				
			Government	Importer	Retailer	Transport and fumigation	Food Service
Lindsay Transport	Mark Robinson	Business Development Manager				x	
Good View Development Group	KT Chiu	Chairman and Director		x			
Good View Development Group	Ha Yan Pui	Sales Manager		x			
Wellcome	Scarlett Luk	Senior Category Buyer – Fresh Food			X		
Wellcome	Shirley Lam	Category Manager – Fresh Food			X		
Trade and Investment Queensland (Hong Kong)	Julie-Anne Nichols	Trade Commissioner	X				
Trade and Investment Queensland (Hong Kong)	Bridget Ip	Senior Business Development Manager	X				
Austrade (Jakarta)	Timmy Lau	Business Development Manager	X				
WingKee	Cyril Leung	Owner/ Chairman		X			
WingKee	Nico Chan	Assitant purchasing and operations manager		x			
Great Food Hall	Timothy Broderick	Executive Chef			x		

CitySuper	Pinky Li	Assistant Buyer - Fruits			X		
Pullman Hotel Jakarta (Accor Hotels)	Natalie Bolt	Executive Sous Chef					X
Pullman Hotel Jakarta (Accor Hotels)	Cameron Gardiner	Executive Chef					x
Trade and Investment Queensland (Jakarta)	Afriyardi Harol	Business Development Officer	X				
Austrade (Jakarta)	Sonya Monica	Senior Business Development Officer	X				
Ranch Market	Harmon Siswanto	Owner/Chairman			X		
Ranch Market	Ali Widjaya	Merchandise Manager			X		
Trade and Investment Queensland (Brisbane)	Geoff Goh	Business Manager – Food and Agribusinesses	X				



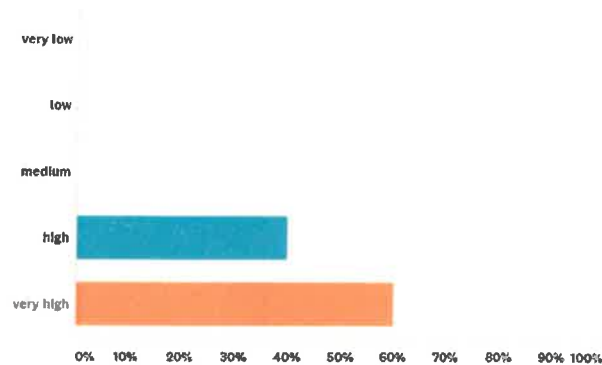
Summary of participant feedback

One of the major objectives of the project was to map and walk the strawberry supply chain in Jakarta and Hong Kong.

Prior to the in-market visit, 80% of participants had a “very low” understanding of the strawberry supply chain for Hong Kong. Following the visit, 100% of participants described their understanding of the Australia-Hong Kong supply chain as “high” or “very high” (refer to figure 2).

Figure 2:

Q2 Describe your understanding of the Australian-Hong Kong strawberry supply chain after your visit to Hong Kong



“A very organised and beneficial trip to Hong Kong with great support and good contacts initiated”.

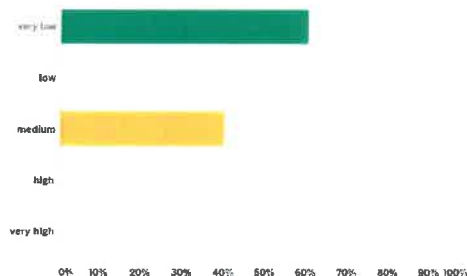
Unidentified participant

The Hong Kong market was specifically chosen for this project because Queensland strawberries have open market access. Furthermore, Hong Kong does not produce their own fresh produce, and the Australian produce is seen as very high quality, clean, green and safe. Hong Kong is a free trade port and there are currently no duties or tariffs imposed.

Figure 3 indicates that 60% of participants had a “very low” understanding of the market requirements for Hong Kong prior to the in-market visit. However, Hong Kong strawberry market understanding improved significantly following the visit with 60% of participants indicating their understanding was now “very high”.

Figure 3:

Q3 Describe your understanding of the Hong Kong market requirements prior to the trip to Hong Kong



"The various measures we took and the advanced level of the cold chain facilities resulted in the fruit arriving in really good condition. I was surprised at how sophisticated the importers facilities were. They were very technically innovative and included dedicated ripening rooms".

Luigi Coco – E&A Coco and Sons



In 2016 Australia was Hong Kong's 19th largest trading partner in 2016 and imported more than \$2.8 million (AUD) worth of goods from Australia including horticultural, dairy and egg products (TIQ, 2018). Consumers are becoming increasingly health and safety conscience and are prepared to pay a premium of 10-30% for products that can clearly identify as such. However, as Hong Kong is a Free trade Port, import business is extremely competitive and quality products are often competing on price.

"Exporting Queensland strawberries will be a transition and over the next few months and years will probably evolve in terms of packaging, supply and markets".

Dr Robin Roberts – Griffith University

This project is continuing on from a 2017/18 project which focussed on "Addressing market access for small strawberry exporters through innovative technology" funded by the Australian Department of Agriculture and Water Resources through the "Package Assisting Small Exporters" program. These projects are continuing to take the whole Queensland strawberry industry on a practical "export learning journey" with regard to understanding market opportunities, logistics, legal and/or preferred import business requirements, pest treatments, transport risk management strategies, costs and payment options and terms. The information and intelligence obtained in these projects is available to the whole Queensland and broader Australian strawberry industry, as well as other fruiting industries that could also benefit.

"A key message that was mentioned many times is the need for consistency of supply, packaging, labelling and quality. There is so much competition that if we can't commit to consistent supply the importers and retailers will find another supplier".

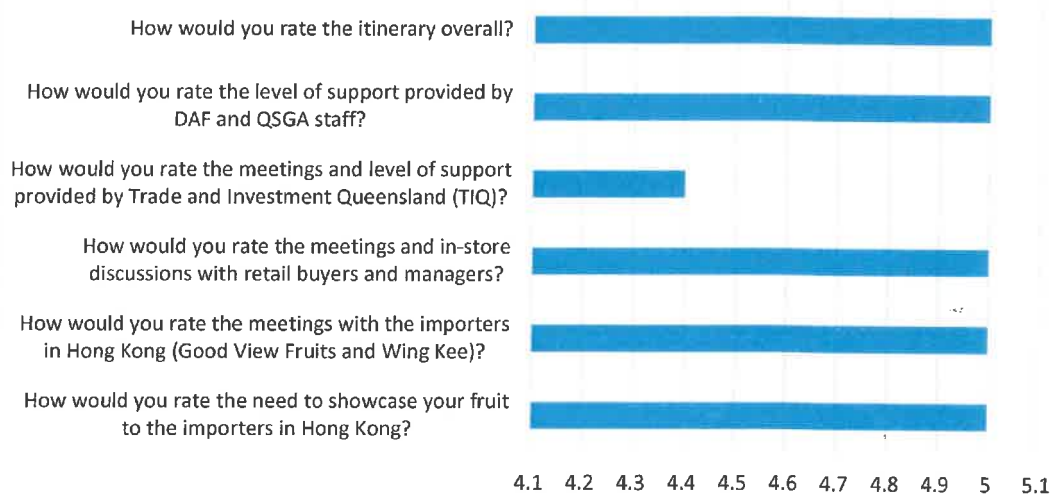
Charmain Davey – Berry Patch Marketing

Brendon and Ashleigh Hoyle – Ashbern Farms

Overall, the detailed itinerary allowed for comprehensive discussions with 18 different government, importer, retail and food service representatives in both Hong Kong and Jakarta. Figure 4 provides a summary of the rating participants gave for various aspects of the itinerary. Of note, is that five of the six questions were rated the highest possible rating (five out of five).

Figure 4: summary of participant rating of various aspects of the itinerary.

Participant rating (1 = lowest, 5 = highest)



Furthermore, 100% of participants indicated that they will take action as a result of this in-market activity (refer to figure 4).

"I will crunch the numbers and ask a few more questions"

Luigi Coco, A&E Coco and Sons

We will crunch the numbers and work out if we can do it. It has certainly opened our eyes to the market and the opportunities".

Brendon and Ashley Hoyle – Ashbern Farms

"We need to get better at managing the logistics with Indonesia and understanding all of the paperwork and other import requirements".

Charmaine Davey – Berry Patch Marketing

Q13 Will you take any action as a result of participating in this trip

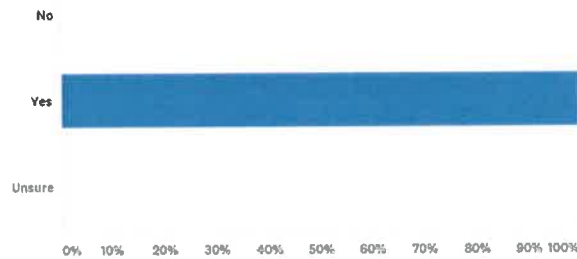


Figure 4: percentage of participants that will take action following the visit

"We would never have been able to have such a detailed itinerary ourselves. The meetings and the contacts we have made with importers and retailers have been brilliant. We really appreciate that Clinton, Bron and Jennifer made it all happen". .

Charmaine Davey – Berry Patch Marketing

Further comments from participants

Highlights

- The group dynamics was good and relaxing which helped with the learning process.
- We are very grateful to have had the opportunity to participate and have the opportunity to explore the possibilities of exporting to Hong Kong. Thank you for such a well organised and informative trip.
- Great trip very educational
- It was important to go in May/June so that we could showcase our fruit to the importers, but other times in-season are too busy
- It was great to identify the opportunity and see how berries fit in with the Hong Kong lifestyle and the competitors
- Massive opportunity to have an itinerary developed by others.
- The meetings with the Trade Commissioner was a highlight. It was great being able to ascertain finer details regarding the local culture and she was also able to ask poignant questions of us and/or the importers and retailers. She was very down to earth, knowledgeable, approachable and informative
- Having a group on the visit helped during the meetings because everyone had a different perspective and was able to ask different questions.

Improvements

- If going in-market during the season shorter trips (2-3 days) would be better
- The first in-market visit to Jakarta was a shock, however, because the itinerary followed a similar model in Hong Kong I was able to take more in and make comparisons – everything has fallen into place

Actions

- Potential for an “end of season” recap to discuss cooperative supply options including consistency in supply, packaging, pricing, labelling, marketing etc
- Eventually need to work towards “preferred supplier status” particularly with Ranch Market and the Hong Kong import businesses
- Korean strawberries will be difficult to compete with on price and quality, however, we could go counter-season to them during our winter months
- Importers are very good at thinking outside the square and addressing challenges and making suggestions on how things could happen
- Identify other packaging options
- Development of a simple “checklist” for both Hong Kong and Jakarta
- Comparative assessment between Red Rhapsody and the competitor strawberries (Driscolls) including appearance, taste, pack size etc)

Other

- We are interested in considering working cooperatively with other growers to make exporting to Hong Kong a success
- High-end retail stores still don’t move a large volume of fruit even though “berries” are their biggest fruit line
- Payment terms of 60 days with some retailers may be impractical for us





projects (HIA, Varietal Commercialisation, Strawberries Australia etc).	project linking activities	
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Project details	Performance measure	Evaluation measure	Achievement
Immediate Outcomes			
Development of Export Specifications	Variety of organisations involved in the development	List of organisations consulted	QSGA DAF RMCG
	Publication and distribution of the specifications	Number of specifications printed	TBC
		Names of organisations specifications distributed to	Good View Development Group Wing Kee Pty Ltd Ranch Market TIQ Jakarta
Three strawberry businesses working collaboratively	Strawberry punnets from each business exported to Hong Kong and/or Indonesia	Number of punnets from each participating business	220
	Representatives from each collaborative business involved in the in-market visit	Number of representatives participating	four
Implementation of in-market visit	Number of Government officials met with	List of names and organisation	Julie-Anne Nichols-TIQ Bridget Ip-TIQ Timmy Lau-Austrade Geoff Goh-TIQ Afriyardi Harol-TIQ

			Sonya Monica-Austrade
	Value of meeting with Government officials	Rating scale following in-market visit	4.4/5
	Number of wholesale/ importers met with	List of names and business	KT Chiu – Good View Development Group Ha Yan Pui – Good View Development Group Cyril Leung – Wing Kee Nico Chan – Wing Kee
	Value of meeting with wholesale/ importers	Rating scale following in-market visit	5/5
	Number of retailers met with (businesses and individuals)	List of names and business/ location	Scarlett Luk – Wellcome group Shirley Lam – Wellcome Group Timothy Broderick – Great Food Hall Pinky Li – City Super Harmon Siswanto – Ranch Market Ali Widjaya – Ranch Market Natalie Bolt – Accor Hotels Cameron Gardiner – Accor Hotels
	Value of meeting with retailers	Rating scale following in-market visit	5/5

Mapping the supply chain	Number of interviews and meetings held in Australia regarding exporting to HK/Indonesia	Names of people and organisations	Lindsay FreshLogistics
	Number of meetings/discussions with growers, logistics, transport, fumigation companies	List of names and organisations	DB schenker Lindsay Fresh logistics Keuhne &. Nagel Two road transport companies – Lindsay Fresh Logistics and Fruit Haul
	Turnout assessments conducted	Number of punnets assessed, location, results	Refer to trial shipment report
Understanding consumer preferences and habits	Queensland strawberry punnets available for sale	List of store	Ranch Market, Jakarta
	Identification of any specific marketing stimuli	List and copy of marketing stimuli (eg. Two for one, sale price etc)	None
	Number of consumer interviews conducted	List of store name, location,	Wellcome Group Great Food Hall Marketplace by Jasons Good View Development Group City Super Wing Kee
	Number of questionnaires	List of store name, location,	Marketplace by Jasons Great Food Hall

	completed by consumers		
Influencing Activities			
Industry communication and engagement	Number and distribution of the newsletter to growers	Published copies of the newsletter articles	Two articles distributed to all strawberry growers in Australia through Simply Red
	Number of growers attending local presentations	Feedback sheets at each seminar.	Average of 30 at each event. QSGA do not obtain feedback sheets
		Diary records	<p>23/4/18 QSGA Export Forum Caboolture</p> <p>16/5/18 Post season strawberry seminar Stanthorpe</p> <p>2/6/18 QSGA AGM Beerwah</p> <p>17/10/18 QSGA Grower Seminar Stanthorpe</p> <p>4/6/19 QSGA Grower Seminar and Committee meeting Beerwah</p> <p>10/7/19 QSGA Bi-annual field day Beerwah</p> <p>June TBC Strawberry</p>

			Innovation Webinar On-line webinar
	Number of articles published in local and regional media	Copies of media articles published	13
	number of farm walks/ seminars held	Feedback sheets	nil
	Publication of a fact sheet	Published fact sheet	1 distributed to growers at QSGA seminar
Project reports			
Monitoring and evaluation plan	Extent that DAF – GQFE Program are satisfied	Acceptance in writing of M&E plan	Achieved
Milestone reporting to DAF	Extent to which reports are completed to the required detail and quality	Acceptance in writing and milestone payment	Achieved
Final report	Extent to which reports are completed to the required detail and quality	Acceptance in writing and milestone payment	
Foundational activities			
Governance			
Link with other associated projects (HIA, Varietal Commercialisation, Strawberries Australia etc).	Number of time participating in project linking activities	Diary records	Numerous



RUNNER INSPECTIONS

Report based on notes taken by Jen Rowling, IDO and with additional comments from Paul Jones, Bugs for Bugs

Thursday, 23rd February 2017

****Please note harvest dates subject to change.**

Recent weather conditions in Stanthorpe

- High temperatures experienced over a prolonged period (record highs)
- Minimum temps have not been going down.
- If temps come down and there is consistently good weather between now and harvest, runner harvest should be only a few days late.
- Plants have been soft and need to toughen up over the coming weeks.
- Also shallow roots due to the amount of water used to cool temps in soil/plants.
- Concern with varieties such as Fortuna that they may be susceptible to crown rot at a later stage (Jun/Jul) because of all the water used early.

Red Jewel Nursery

- Runner production running behind due to the intense heat over an extended period of time.
- Need several weeks to the plants to toughen up.
- Soil temps have been 3 – 5 degrees higher than average.
- No chill.
- Need 3 weeks of cooler weather with minimums below 10 degrees.
- Harvest may be delayed by anywhere up to a week, depending on variety.
- Low mites – good control through use of beneficials. Good predator population.
- Good powdery control, which may be a result of the new spray program.
- Lethal yellow has been low to date.

Red Rhapsody (Red Jewel)

- Numbers OK for what has been forecast.
- Need 3 weeks to build roots
- With perfect conditions, numbers may increase.
- Harvest dates approx. 20th to 22nd March.



Red Rhapsody (Red Jewel)

Suncoast Delight (Red Jewel)

- Harvest to start approx. 15th March.
- Overplanted so all priority orders should be filled despite setback in development due to heat.
- Some heat damage to leaves.



Suncoast Delight (Red Jewel) – image above highlights the differences in development of roots due to heat. Approx. 10 days behind where they should be.

Fortuna (Red Jewel)

- Going as well as can be expected given the temperamental nature of the variety.
- Numbers should be OK.
- Harvest from 23rd to 25th March through to mid April.



Fortuna (Red Jewel)



Festival (Red Jewel)

- Growing well as always. Looking good with no obvious signs of any problems.
- There shouldn't be any problems with numbers.
- Expected harvest date late March/early April.



Festival (Red Jewel)

Sweets Strawberry Runners

- Small amount of powdery mildew present but not a problem this year.
- Minimal lethal yellow.
- Have recently had beneficials spread via Aerobugs.

Festival (Sweets)

- Plants toughening up well and no problems with numbers expected.
- Still about 4 weeks until ready for harvest.
- Approx harvest date 22nd to 25th March.



Festival (Sweets)

Fortuna (Sweets)

- Definitely needs more time.
- May be possible for late March harvest, depending on how they progress but likely early April.



Fortuna (Sweets)

Red Rhapsody (Sweets)

- Early planted blocks may be harvested around 20th March.
- Wide planting spread with this variety – late planted performs well.



Red Rhapsody (Sweets)

Aussie Gem (Sweets)

- Toughening up well and look like they will be good plants.
- Root systems need a bit more time (week).
- Good numbers – should be no order issues.
- Expected harvest approx. 7th to 12th March.



Aussie Gem (Sweets)

Suncoast Delight (Sweets)

- Could be ready 15th March.
- This may still be a bit early but if there is a demand for them this early, they should be OK.



Suncoast Delight (Sweets)

Ruby Gem (Sweets)

- Inspections done on later planted blocks.
- Harvest start for most will be 17th to 20th March.
- Some still have a way to go so may have to wait until around 25th March.



Ruby Gem (Sweets)

Planting tips for growers

- Hot weather is not ideal for planting so growers need to have a good look at when they want to plant and prepare for good watering regimes.
- Growers will need to have plenty of water. Last year, growers who had low water had problems.
- Growers need to follow general best practice methods once plants are in the ground ie. Keep plants cool, not sitting on plastic, ensure ideal planting depth etc.
- Plants need to go in the ground early morning (before 10am).
- Monitor soil temps if possible.
- Microbial dips may help, however there is the risk of spreading diseases with dipping large numbers of plants in the same dip. Possible option is to pour the product through boxes.

Additional notes from Paul Jones, Bugs for Bugs

Predatory mites

Both strawberry runner farms have used predatory mites this season using Aerobugs for dispersal services via the Drone. In the case of Red Jewel, continuous releasing of the Californicus predatory mite over the years has enabled good natural residual establishment in the blocks. A release of persimilis predators mites around the margins of the blocks are covered well for biological mite control.

Sweets runner farm released a combination of Californicus and Montdorensis for both mites and thrips. Montes are rapidly becoming a popular thrip predatory mite and production trends have increased significantly due to its ability to control thrips, especially Western flower thrips. Southern strawberry farms have achieved excellent wft control using the montdorensis predatory mites.

On account of the biological mite releases and the detection of predatory mites on runners, it is strongly advised that growers use soft insecticides to aid runner establishment from caterpillars. Avatar, Belt or Coragen would all be suitable. Though more expensive than old chemistry insecticides, relief from later mite pressure is a major cost saver for the grower.

Runner establishment

Be aware when planting runners early that up until the 2nd/3rd week of March, it is a high risk management decision, especially with the current weather patterns. The warm Stanthorpe runner growing season with early runner harvest may result in small fruit emerging from the planted farm runners. From all accounts, this year the plants look good, however like last year a mild Stanthorpe runner harvest together with a warm dry March planting could lead to production and fruit quality issues. This was the experience of the short day runners such as Suncoast Delight, Festival last year.

2017 at the moment is a mirror image to the 2016 season.

Make sure also that early plants receive lots of water for establishment. Early planted runners will need plenty of water especially if we have a warm dry March.

Don't be shy to plant a bit later if concerned. Please advise this to your runner grower.

Many thanks to Ian Mungall and Elise Pike, Wally Sweet and Paul Jones for your assistance with this report.



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Export supply chain

Queensland strawberries to Hong Kong

Business in Hong Kong

Hong Kong is an import-dependent market with 95% of food and beverage products imported from around the world with zero tariff charged on most imports. The Australian market penetration into Hong Kong is low with the whole Australian strawberry industry providing 4% of the Hong Kong fresh strawberry market which in total is approximately 7,689 tonnes.

Hong Kong has a relaxed regulatory environment for imported food and beverage products with transparent and efficient customs clearance procedures. The Hong Kong market for Queensland strawberries has open market access and is a free trade port which means there are currently no duties or tariffs imposed.

In Hong Kong, the wet markets are strong in fresh foods, while supermarkets are strong in processed, chilled, frozen, high-added value and canned food products. The competition between the wet markets and supermarkets has intensified in recent years. While both the wet market and supermarket sales are increasing, supermarkets particularly those from the Dairy Farm Group and AS Watson Group account for 75% of the supermarket turnover with greater than 580 stores between the two groups.



Transport Recommendations

Direct transport for fresh strawberries is always the best option because the more movements, the higher the risk of a change of temperature and therefore a potential reduction in fruit quality. Other strategies include:

- Pre-cool produce to desired temperature: 0-2° Celsius
- Use refrigerated transport to the airport
- Pack boxes of produce as densely as possible
- Protect produce from direct sun or other heat sources
- Use insulated aircraft pallets wherever possible or cover pallets with flexible insulating material
- Utilise data-loggers so that temperature maintenance can be viewed in real time.
- Use dry ice (solid CO₂ that at atmospheric pressure has a temperature of approx. -79° C. The evaporation is residue free, and it is also non toxic, non flammable, inert, tasteless and odourless).

Queensland strawberries to Hong Kong



From 1 March 2019, all fresh produce (including strawberries) being exported from Australia will undergo compulsory security screening via x-ray or metal detector. Exporters from Australia have two options:

1. Use an Australian Government approved and accredited air cargo agent who can examine their air cargo at piece-level
2. Be approved as a Known Consignor, so they can secure air cargo originating from their business. A Known Consignor is a business that:
 - Originates international air cargo
 - Meets approved security measures designed to prevent the introduction of an unauthorised explosive into cargo
 - Is approved by the government
 - Is responsible for securing air cargo that originates from their business until that air cargo is provided to another regulated business.



Consumer trends

Opportunities for Queensland fresh strawberries fall into the following categories:

1. Daily consumption of the fruit – increasing demand for foods that are time saving, yet healthy (driving forces are demographic changes, busy lifestyles and food safety incidents)
2. Fruit that is marketed as having additional health benefits - increasing trend towards the consumption of healthy, quality, functional and organic foods. The ageing population and a rise in health consciousness is creating a commercial environment for products that aid the maintenance of health and means consumers will pay 10-30% more for these products including those that are marketed as “organic”.
3. Premium fruit as a popular gift. Gift giving is all year round, however there are specific international events that are also highly celebrated in Hong Kong particularly between October and April including Christmas, Western New Year, Chinese New year, thanksgiving and Easter. To the Chinese, “red” is a happy and prosperous colour.
4. Food service: this includes for use in salad bars, decorative cakes (Maxim’s Catering), and hotel and catering industries both in Hong Kong and Macau.

The demand for various kinds of convenient food items is increasing and consumers are becoming more conscious about nutritional values, traceability and food safety. The result is an increasing trend towards naturally healthy, functional, quality and sustainable food choices.

There is a strong preference for strawberries in a single layer-flat punnet which protect the fruit and avoids bruising and also allows for the whole punnet of fruit to be easily viewed for imperfections.

The supply of strawberries is very competitive. As such, there is no brand or business loyalty from the wholesale or retail customer unless the supplier provides product consistency in terms of branding, fruit quality and size and supply.

There is enormous opportunity for Queensland strawberries to be provided in the Korean counter season from May through to November.