A New Collaborative Paradigm for Fresh Produce Safety

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Project Number: HG12020

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A NEW COLLABORATIVE PARADIGM FOR FRESH PRODUCE SAFETY

Research Providers: University of Sydney, Faculty of Agriculture and Environment and Produce Marketing Association – Australia and New Zealand

A New Collaborative Paradigm for Fresh Produce Safety

HAL Project Number

HG12020

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Statement of Purpose

The purpose of the this project was to draw together the key stakeholders of the Australian fresh produce industry to develop a model to identify research needs, conduct research, and implement appropriate solutions for the Australian horticultural. The aim was to build on the relationships already established between Produce Marketing Association Australia & New Zealand, University of Sydney, Faculty of Agriculture and Environment and the Center for Produce Safety at UC Davis in the United States, to scope out the feasibility for a dedicated body to identify research needs and provide appropriate fresh produce safety solutions for the Australian industry.







Funding of this Project

This project was funded by voluntary contributions from the University of Sydney Faculty of Agriculture and Environment (USyd FAE) and Produce Marketing Association Australia and New Zealand (PMA A-NZ) with matched funding from the Australian Government accessed through HAL.

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Media Summary

Fresh fruit and vegetables are perceived to be healthy and nutritious however, because many products are eaten raw the risk of illness to the consumer is high. Prevention of foodborne illness relies on local evidence-based research to underpin the quality assurance systems that make our fresh produce safe. Australia, Europe and the US have workable food safety systems, but the inadequacy of these systems was brought into sharp focus with several recent outbreaks of serious illness associated with the fresh produce industry. In the US in 2011, Listeria on cantaloupes killed 23 people and caused illness in over 100. In the same year, a serious food safety issue arose in Europe, with fresh sprouts eventually being identified as the likely culprit. Fortunately, these examples of large scale food safety issues occur periodically, rather than on an ongoing basis.

In 2008 in the US, after a major spinach contamination, the fresh produce industry, University of California, Davis (UC Davis) and the Produce Marketing Association (US) established the Center for Produce Safety (CPS) to provide a focus for industry-based research and extension. CPS combines expertise of industry stakeholders, government and the scientific and academic communities to focus on the provision of research needed to continually enhance produce safety. In its first three years of existence, the CPS has awarded \$9.2 million in funding for 54 one- to two-year food safety research projects at 18 universities and other organisations. Importantly the CPS translates the research outcomes to provide the produce industry with practical, on the ground strategies that are implemented at every level of the supply chain.

In Australia we have no similar body focusing specifically on fresh produce safety research. Awareness of food safety is currently promoted by the regulatory body, Food Standards Australia New Zealand (FZANZ), various Quality Assurance programs such as SQF, Freshcare, and HACCP and Horticulture Australia Limited (HAL)'s portfolio of Product Quality and Integrity. Despite these programs, there is a degree of complacency and food safety issues remain low on the list of priorities. Furthermore, there is very little research that specifically addresses food safety concerns that face horticultural and associated industries in an Australian context.

The purpose of this project was to build on the relationships already established between Produce Marketing Association Australia & New Zealand, University of Sydney, Faculty of Agriculture and Environment and the Center for Produce Safety at UC Davis in the United States, to scope out the feasibility for a dedicated body to identify research needs and provide appropriate fresh produce safety solutions for the Australian industry. Through industry workshops and outreach activities, a close working relationship has been developed to enable an open and collaborative dialogue on the desirability of establishing an industry driven Fresh Produce Safety Centre (FPSC) at the University of Sydney affiliated with the Center for Produce Safety (CPS) at UC Davis. Both anecdotal feedback and a formal survey, indicate that the industry has given strong support for the establishment of a centre with the goal of filling the knowledge gaps on produce food safety in Australia and New Zealand, and protecting and enhancing food quality.

The indu	stry identified the key roles of the FPSC to be:
	Managing food safety research projects to fill gaps in knowledge, Providing education, information and news on fresh produce safety, Assisting in crisis management training, incident response planning and monitoring with emphasis on effective outreach and training to growers and staff in remote areas.

Industry clearly indicated that there is a significant gap in food safety research and outreach, and that the newly established centre assist in ensuring that the roles of other organisation will not be duplicated.

Introduction

Fresh fruit and vegetables are perceived to be healthy and nutritious however, because many products are eaten raw the risk of illness to the consumer is high. Prevention of foodborne illness relies on local evidence-based research to underpin the quality assurance systems that make our fresh produce safe. Australia, Europe and the US have workable food safety systems, but the inadequacy of these systems was brought into sharp focus with several recent outbreaks of serious illness associated with the fresh produce industry. In the US in 2011, Listeria on cantaloupes killed 23 people and caused illness in over 100. In the same year, a serious food safety issue arose in Europe, with fresh sprouts eventually being identified as the likely culprit. Fortunately, these examples of large scale food safety issues occur periodically, rather than on an ongoing basis.

Fresh produce safety applies to all aspects of the supply chain in the fruit and vegetable industries (fresh produce). Therefore growers, packers, processors, wholesalers, fresh food retailers, packaging, transport and logistics all have a responsibility to supply consumers with food that is safe.

In 2008 in the US, after a major spinach contamination, the fresh produce industry, University of California, Davis (UC Davis) and the Produce Marketing Association (US) established the Center for Produce Safety (CPS) to provide a focus for industry-based research and extension. CPS leverages the combined expertise of industry stakeholders, government and the scientific and academic communities to focus on the provision of research needed to continually enhance produce safety. In its first three years of existence, the CPS has awarded \$9.2 million in funding for 54 one- to two-year food safety research projects at 18 universities and other organisations. Importantly the CPS translates the research outcomes to provide the produce industry with practical, on the ground strategies that are implemented at every level of the supply chain. In Australia we have no similar body focusing specifically on fresh produce safety research

Gap in Australian fresh produce safety research

In the Australian fresh produce sector, food safety awareness and compliance has historically been driven by the requirements of key customer groups. Awareness of food safety is currently promoted by the regulatory body, Food Standards Australia New Zealand (FZANZ), various Quality Assurance programs such as SQF, Freshcare, and HACCP and Horticulture Australia Limited (HAL)'s portfolio of Product Quality and Integrity. Freshcare and a number of other agencies currently deliver voluntary industry owned on-farm food safety and quality assurance program to producers and packers. Despite these programs, there is a degree of complacency and food safety issues remain low on the list of priorities. Furthermore, there is very little research that specifically addresses food safety concerns that face horticultural and associated industries in an Australian context.

Food safety regulation at both a State and Federal level is currently only directly applicable post farm gate. Food Standards Australia New Zealand (FSANZ) reviewed the need for Primary Production Standards in Horticulture and after cost/benefit analysis recommended that a similar concept to "SafeMeat", to be named "SafeHort" needs to be initiated and driven by the industry.

This project aimed to scope out the feasibility for a) a dedicated body to identify gaps in knowledge and manage research solutions for the Australian fresh produce industry, and b) a model that would not only coordinate research and but also play a role in extension of Australia's fresh produce safety among the various bodies.

As a model to explore, the Center for Produce Safety (CPS) in the United States is a collaborative partnership that leverages the combined expertise of industry, government and the scientific and academic communities to provide research needed to fill the knowledge gaps on produce food safety. Initial funding for CPS was provided by the California

Department of Food and Agriculture, the University of California, Produce Marketing Association (PMA) (\$2M) and Taylor Farms (\$2M). CPS is now recognised globally for its research and practical applications for the fresh produce industry in the USA.

The Faculty of Agriculture and Environment (FAE) at the University of Sydney (USyd) and PMA Australia-New Zealand (PMA A-NZ, the first global affiliate of the leading global industry organisation) was invited to work closely with the CPS at UC Davis to investigate whether a similar model would benefit the Australian industry. Specifically the CPS invited the Australian industry to build on the already substantial body of research outcomes with specific research that collectively benefits and services the Australian fresh food produce industry.

The objectives of this project were to enhance relationships already established between PMA A-NZ, FAE - USyd and the CPS to provide the Australian fresh produce industry with support to:

- a) Scope out the model and priorities for food safety research and extension in the Australian fresh produce industry;
- b) Raise awareness within the fresh produce industry of the challenges for produce safety and the importance of enhancing our produce safety practices and preparedness in Australia, through PMA A-NZ and other organisations;
- c) Develop a plan that identifies how PMA A-NZ, FAE and other organisations will handle major food safety outbreaks in the region, particularly in the areas of crisis management and consumer communication;
- d) Translate industry relevant US-based research outcomes (from the CPS) in produce safety for application in the Australian fresh produce industries; and
- e) Identify research needs that are specific to the Australian fresh produce industry.

Companies such as the large supermarkets have been actively seeking information and research to enable them to engage in safe practices and to prevent any food safety scares or issues.

The Horticulture industry in Australia was the natural partner for this project since all major outbreaks overseas have been traced back to on-farm problems and hence the horticulture industry is most vulnerable. Any outbreak (even if not originating on-farm) will impact the entire fresh produce sector. The program linked with the substantial amount of work HAL's Product Integrity Manager, Richard Bennett has conducted over the years on training and quality systems.

Methodology

The project conducted a scoping study to develop a model for collaboration between CPS at the University of California, Davis, PMA A-NZ and the FAE at The University of Sydney, building on and enhancing the relationships already established, and providing the Australian industry the same level of support and research.

The aim of the scoping study was to:

П	test the feasibility of creating a sister Centre for Produce Safety at the University of
ш	
	Sydney, where research on food safety of interest to the Australian industry is
	conducted
	raise awareness within the horticulture industry of the importance and need to
	enhance food safety in Australia
	translate relevant US based research outcomes for use in the Australian horticulture
	industries,
	identify the highest priority gaps in knowledge, research and commercial application
	in food safety in the Australian context.

A number of activities, outlined below, were undertaken in collaboration with industry to fulfill the aims of the project.

Activity 1

Understanding the Australian Context: The University of Sydney and PMA A-NZ, FAE invited Dr Whitaker (Chief Scientist and Technologist Officer, PMA) and Ms Fernandez-Fenaroli (Executive Director, CPS) to travel to Australia and take part in a 3-day safety situation analysis of the Australian fresh produce industry to determine the threats and risks the industry faces, raise awareness of food safety and highlight the key issues required to enhance food safety. The aim was to learn how well prepared the Australian fresh produce industry was, for a major food safety outbreak. Australia's preparedness will be directly bench-marked against the experiences in the USA, where they have had some significant cases which have tested their systems and their communication processes. The study tour also provided an Australian context to enable the US visitors to adapt their presentations for the industry based workshop in Activity 2. Ms Lorna Christie Senior Vice President of PMA accompanied Dr Whitaker and Ms Fenaroli from the US to speak on Crisis Management and was funded separately by PMA USA.

Activity 2

Raising Awareness through an Australian Industry Workshop: Dr Robert Whitaker, Ms Bonnie Fernandez-Fenaroli, and Ms Lorna Christie too part in an industry-focused workshop coordinated by the University of Sydney, and PMA A-NZ, to which all industry stakeholders across the value chain, were invited. The purpose of the workshop was to explore a workable model for the establishment and ongoing support for an industry driven centre for research and implementation of best practice in fresh produce safety for the Australian industries.

Activity 3

Outreach: A comprehensive website as the "go-to" site was established to provide information on fresh produce safety for all sectors of the Australian fresh produce industry from producers to retailers to service providers. The website was set up to provide the latest food safety news from around the globe, research projects, regulations and links to a wide range of associated and relevant websites.

Activity 4

Understanding the USA Food Safety Research Paradigm: Reciprocal visits by Mr Michael Worthington (PMA A-NZ) and Associate Professor Robyn McConchie (FAE) to the CPS were undertaken to observe first hand operations and functioning of the CPS and to identify further areas of common purpose/opportunities for synergies. The visit was to coincide with a focused CPS workshop of Wash Water Sanitation to enable report back to the Australian industry on the latest research in that area.

Activity 5

Present at the Freshcare Stakeholders Workshop 11 & 12 April 2013. This event is held every two/three years bring members of the industry, trainers and auditors up to date with the latest information and changes to QA guidelines. The conference looks at new science, provides an update on technical issues, discusses code interpretation and raises food safety issues to be addressed by industry. Around 60-80 industry personnel in the fresh produce safety industry attend. The project supported two activities at this workshop:

- a) Dr Robyn McConchie gave a presentation to the conference on CPS research outcomes and models for managing and coordinating ongoing fresh produce safety research.
- b) The conference provided an ideal opportunity to draw on the expertise in food safety at the conference to "workshop" and identify the key issues for fresh produce safety research and assist in prioritising what is required in the Australian food safety context. A professional facilitator was engaged to conduct the 2 hr workshop.

Activity 6

Transposing US Research to Australian Context: Identify five key research outcomes from the last three years of CPS grants that have relevance for the Australian context and develop an outreach strategy to allow technical transfer to the Australian industries through the established connections to industry of PMA A-NZ and HAL.

Activity 7

Promotion of the project outcomes at the PMA-ANZ Fresh Summit Conference in Sydney in June 2013. The conference promoted Food Safety as a major theme featuring the project outcomes via presentations and an information booth.

Both PMA A-NZ and the FAE viewed this project with serious commitment as shown by the level of voluntary contributions towards this project. The program was managed by the University of Sydney FAE with PMA A-NZ taking on key roles of outreach, administration and ensuring close industry involvement. The University of Sydney appointed a full time science/horticultural graduate for one year to assist with the logistics of bringing Dr Whitaker and Ms Fernandez to Australia, writing reports on industry status, outcomes of the scoping study and transposing the research outcomes of CPS to the Australian context.

Results and Technology Transfer

A summary of the project outcomes are listed under each activity of the project. As many of the activities are directly related to outreach, adoption of outcomes was a major priority of the project.

Activity 1: Understanding the Australian Context.

The USyd FAE and PMA A-NZ invited Dr Robert Whitaker (PMA) and Ms Bonnie Fernandez-Fenaroli (CPS) accompanied by Ms Lorna Christie Senior Vice President of PMA to travel to Australia. In preparation for their visit in November 2012, an overview of fresh produce safety in Australia was compiled to provide background information into the current situation of the industry (Appendix 1.1). The guests took part in a 3-day produce safety situation analysis of the Australian fresh produce industry accompanied by Associate Professor Robyn McConchie, Head Plant and Food Sciences, from the University of Sydney and Mr Michael Worthington, CEO PMA A-NZ and to provide context for their presentations at the forum. The background of the hosts for these visits is in Appendix 1.2.

A run-sheet was prepared for the week-long visit (Appendix 1.3). On 5 November 2012, delegates traveled to Melbourne for day 1, and on days 2 and 3 visits were located in Sydney. The study tour visiting three major supermarkets, processors, growers and QA providers, enabled the visiting fellows to gain insight into the Australian industry, but importantly, the enterprises/organizations also benefitted by gaining valuable knowledge through round table discussions with the guests. The hands-on approach and direct contact with all levels of the supply chain increased exposure of the project's goals to promote food safety and a new paradigm, and raise awareness of food safety and the key issues required to enhance food safety in Australia. The study tour also provided an Australian context for the US presentations at the industry based workshop that same week. The fellows gave presentations at the industry-focused workshop, providing detailed accounts in their areas of expertise – food safety research, a model for a food safety centre and crisis mitigation and management. This is further outlined in the next activity outcome. Following the workshop the visiting fellows, members of USyd, FAE, PMA A-NZ and HAL and discussed the outcomes of the week's study tour and the development of a model for future collaboration and synergies.

Activity 2: Australian Industry Workshop.

During the visit by the USA fellows, an industry-focused workshop titled "Fresh Produce Safety: Building a New Paradigm", coordinated by USyd, PMA A-NZ, and involving HAL was held on the 8 November 2012 attracting 75 participants from across the value chain. The aim of the workshop was to provide information on how the USA was addressing produce safety research and to explore a workable model for the establishment and ongoing support for a centre for research and implementation of best practice in fresh produce safety for the Australian industries. All parts of the supply chain where invited through USyd FAE and PMA A-NZ contacts and their networks (Appendix 2.1). The forum agenda (Appendix 2.2), an outline of the project (Appendix 2.3) and an introduction to the speakers for the forum (Appendix 2.4) was made available to the 75 attendees.

The day was structured so as to have a series of presentations by the US guests and local experts in fresh produce safety, followed by a question and answer style workshop to hear from the members of industry and understand the issues concerning all levels of the supply chain. The audience was invited to write down questions and/or research priorities on flip charts provided in the room and were addressed in the Q&A session. They were also

integrated into a document sent to all registered participants on the forum outcomes (Appendix 2.5) and were encouraged to share within their networks.

The report on Forum outcomes was based on the discussion during the Q&A session and the evaluation surveys conducted and collated by the University of Sydney at the end of the forum. From the survey, industry priorities in research were identified, and key learnings from the visiting fellows were provided. The presentations by the speakers were sent to all participants. The outcomes were also uploaded onto the USyd and PMA A-NZ websites and distributed to contacts of USyd and members of PMA A-NZ. The forum gained attention from the media resulting on two reports by Growcom and ABC Rural. The outcomes were also released in the HAL Hortlink, January 2013 edition, after survey results indicated that this project needed to also engage with the peak industry bodies.

Activity 3: Website developed featuring food safety resources.

A website, *freshproducesafety-anz.com*, was built to provide a "go-to" site for the fresh produce industry on safety. The website has workshop outputs, research priorities for fresh produce safety and access to national and international resources as a direct result from the *Fresh Produce Safety - Building a New Paradigm* forum. It was launched 17th January 2013 (Appendix 3.1) through the USyd media, the University website newsletter, the registrants of the forum via email and through PMA A-NZ members and contacts. The website (Appendix 3.2) acknowledges the project partners, provides the goals of the project and links to free presentations on up-to-date and current food safety information, including wash water, crisis management, the recent US Food Safety Modernisation Act (FSMA) and is ongoing, being updated regularly.

Activity 4: Understanding the USA Food Safety Research Paradigm

In January 2013 Dr Robyn McConchie (USyd FAE) and Mr Michael Worthington (PMA ANZ) met with Bonnie Fernandez-Fenaroli (CPS UC Davis) to better understand the operation and funding model for the Center. The CPS is a collaborative partnership that leverages the combined expertise of industry, government and the scientific and academic communities to focus on providing research needed to continually enhance food safety. This level of collaboration allows the CPS to fill the knowledge gaps on produce food safety. The CPS has awarded \$9.2 m for 54 research projects over the past 3 years. This money has been secured through pledges from industry. The CPS is housed at the University of California, Davis, has a Board of Directors, Technical Committee, and Executive Committee. It is managed by an Executive Director (Bonnie Fernandez-Fenaroli) and four other support staff (Grants Manager x 2, Communication and Events Manager and Global Database Manager).

A key aim of this project is to establish an independent, industry-managed Fresh Produce Safety Centre, hosted at the Faculty of Agriculture and Environment, University of Sydney. The Australian Fresh Produce Safety Centre would be a sister centre to the CPS. Its primary aim would be to coordinate research into industry-identified fresh produce safety issues/challenges in Australia. The value of being affiliated with the CPS in the US, is to utilise and build on the existing structure and framework of the US model. The functioning of the Australian centre would be collaborative but decisions and strategic direction taken independently of the CPS US. This would benefit the Australian Industry, creating a framework for a coordinated approach among the fresh produce industry, to identify research needs, implement appropriate solutions and provide local science-based research to underpin effective regulation and implementation of food safety programs (appendix 4.1).

The CPS US held a Wash Water Symposium at UC Davis in January 26th 2013. Both Dr Robyn McConchie and Mr Michael Worthington had the opportunity to attend and report on

the key findings for the research done in this area. The one-day workshop covered Wash Water Sanitation and Validation, and aimed to update stakeholders with the latest research in wash water sanitation and draw on the participant's experience to identify needs for research and training. Dr Robyn McConchie provided the key take home messages (appendix 4.2) and an overview of the workshop and the presentations were posted on the Fresh Produce Safety A&NZ (FPS A&NZ) website (appendix 4.3).

A research partnership with CPS

The visit also provided a platform to further the existing relationship between CPS and Australian counterparts. A research partnership with CPS (appendix 4.4) was established allowing the Australian research community to apply for funding for two collaborative projects on topics identified as research priorities at the *Fresh Produce Safety - Building a New Paradigm* Forum in November 2012. The two areas of greatest priority were: compost, soil amendment, organic fertilizer use, and cultivation practices; and agricultural water. This was publicized in the US by CPS and on the FPS A&NZ website, and in the FPS A&NZ newsletter. Details about how to apply and reminders were also distributed (appendix 4.5), giving the Australian and American research communities 8 weeks to apply. This kind of partnership gave the Australian industry access to \$3M worth of funding that was available through the CPS.

In establishing this partnership, an Australian Technical Committee (appendix 4.6) was formed to collaborate with the established CPS Technical Committee to review the research proposals submitted by the Australian research community. This Technical Committee was selected to include various representatives of the fresh produce industry, such as researchers, government, retailers and growers. The Committee operates independently of this project, working directly with the CPS Technical Committee on the review of each submission.

Activity 5: Support the Freshcare Biennial Workshop

The Freshcare Workshop is held every two/three years allowing members of the industry and trainers and auditors to access new science, updates on technical issues, and discuss the code interpretation and raise food safety issues to be addressed by industry. The two day program attracted 65 industry personnel in the fresh produce safety industry, covering topics such as Freshcare program updates, food safety regulation in both Australia and the US, and an update on the possibility for QA harmonization in Australia. The event provided an ideal opportunity to "network" amongst delegates to identify the key issues for fresh produce safety research and draw on the expertise in the room for prioritizing research required in Australia. The event was also promoted to the industry via the website and email newsletter (appendix 5.1). This raised the awareness of the importance of food safety across the supply chain and highlights the actions taken by local companies, organisations and Government working in this space.

At the Freshcare workshop, Dr Robyn McConchie delivered a presentation entitled "Center for Produce Safety 2012 Research Review: What's new in food safety for you?" (appendix 5.2). The presentation was based on the information provided by Dr Bob Whitaker (PMA) and Ms Bonnie Fernandez-Fenaroli (CPS) and summarizes some of the food safety research made available at the CPS 2012 Research Symposium. The presentation focused on the areas that have previously been highlighted as priority in an Australian context, including composting, irrigation water, wash water and animal vectors.

Following the presentation, Ms Emma Walters, a professional facilitator, was employed to coordinate a participatory workshop session. This was a 90 minute interactive session

designed to answer the question: "What unique fresh produce food safety challenges are there in Australia that we need answered by research to reduce risk?" Delegates were divided into 8 thematic groups with 6-7 participants per group. The groups were formed in response to a survey sent prior to the workshop asking participants to rank food safety research priorities, including: Water (field), water (wash water), microbial research, pathogens in the post-harvest distribution chain, compost and organic fertiliser use, harvest and cooling practices, chemical residue research, and regulation and protocols. In their groups, participants were asked to discuss the broad area they had been allocated and to develop specific research questions in that area. This was highly successful and the outcomes were reported for both Freshcare and our distribution (appendix 5.3). This activity allowed us to better understand the industries' priorities in food safety research and to continue coordinating research after the completion of this project. Both the presentation and outcomes of the facilitated were posted for public access on the website and included in the newsletter (appendix 5.4).

A summary from Freshcare on the success of the event was also published on the website, highlighting the success of the event and creating awareness of food safety and insight for those who were unable to attend (appendix 5.5).

Activity 6: Outreach material with information for industry circulated

An email newsletter was developed on "mailchimp" to send to the growing recipient list. Contacts were initially gathered from those who registered for the *Fresh Produce Safety – Building a New Paradigm* Forum in November 2012, but also mail invitations were sent out and increased the contact list by 80-90 recipients. Finally, there is the ongoing option to subscribe to the newsletter via the website. The total number of recipients is currently 206 people. Recipients are encouraged to share the newsletters amongst their own networks.

The newsletter is released monthly, the first newsletter being released on 22 February, 2013 (appendix 6.1) and since then there have been 2 others (appendix 6.2, appendix 6.3) which all contain brief synopses and links to news published on the website. Each newsletter had 4 to 5 articles on various aspects of the project or food safety in Australia or in the US, as mentioned in other criteria of this milestone report.

Food Safety research outcomes have been provided to industry throughout the project in the form of presentations posted on the website or through the newsletters. These include presentation from the US visitors in Activity 2, the Washwater Sanitation Meeting in Activity 4 and the Freshcare CPS research outcomes presentation in Activity 5.

Furthermore, as part of the outreach activities, building a collaborative paradigm and promoting awareness of food safety in the industry, we invited several businesses involved in QA to host a Food Safety Hub at PMA Fresh Connections 11- 13 June 2013, Sydney. Several organisations were invited to join us with an email flyer (appendix 6.4) and also advertised on the website and newsletter (appendix 6.5). The companies included several certification bodies; Aus-Qual, BSI Incorporating NCSI, SAI Global and SGS Australia, and other organisations including Freshcare, GS1 Australia and TQA Australia (appendix 6.6).

Activity 7: Promotion of the Project Outcomes at PMA Fresh Connections, Sydney.

Involvement at PMA Fresh Connections Conference and Trade Show, Sydney, was a very successful way of promoting the project outcomes and encouraging the adoption of these outcomes. In the lead up to the conference several activities were undertaken to support the promotion.

Firstly, hosting the Food Safety Hub involved a great degree of coordination and collaboration with the several companies involved. As PMA Fresh Connections has never seen a collaborative booth as this one, manual registration was undertaken, with each participant for each company required to register (appendix 7.1). Information was also put together and provided to each of the participants on the booth (appendix 7.2 and appendix 7.3) giving details of arrival times, tradeshow open times, what to expect, what is required, and where to go. Logos from participating organisations were collected and used in the booth design (appendix 7.4) and layout of the booth also took a great deal of consideration to be sensitive to competing companies joining the Food Safety Hub (appendix 7.5). The team coordinating the Food Safety Hub followed a runsheet to ensure smooth set up and pack down of the booth (appendix 7.6).

The Food Safety Hub was promoted on the website prior to the conference and was publicized in the newsletter (appendix 7.7 and appendix 7.8).

At all industry events, it was clear that stakeholders expressed a keenness to establish a similar centre to the CPS in the US. However as this information was largely anecdotal we undertook a formalized survey of industry to support this response. A survey was sent to 229 stakeholders from across the fresh produce value chain asking "If the Industry needs a Fresh Produce Safety Centre?" and was sent via SurveyMonkey. The results were collated and reported on (appendix 7.9), made available on the website (appendix 7.10) and in the newsletter (see appendix 7.8). There was overwhelming support for the establishment of a Fresh Produce Safety Centre and for it to be housed at the University of Sydney. This information was the disseminated back to industry, along with the proposed model for the centre, in a brochure and used to promote the establishment of a Fresh Produce Safety Centre, asking for pledges of financial support to sponsor the industry driven initiate (appendix 7.11). Prior to PMA Fresh Connections, the program partners met with representatives from FSANZ, and SAFEFOOD Qld, to discuss how the Centre will operate with regulatory bodies and act as a forum for communication between both the industry and regulatory bodies. A diagram was designed to describe the relationship between the industry, the regulatory bodies, research institutions and the Fresh Produce Safety Centre (appendix 7.12).

This was launched at PMA Fresh Connections, promotion occurring at the Food Safety Hub and also during presentations in the Conference. Dr. Robyn McConchie, delivered a presentation promoting the project outcomes and the Fresh Produce Safety Centre (appendix 7.13) at the concurrent session "What it takes to instill a food safety culture in your business" along with Dr Doug Powell, Kansas State University. The project has also gained further recognition by the Australian Institute of Agricultural Science and Technology (AIAST), by the nomination and award of Project Officer, Erika Watson, for contribution to the Agricultural industry (appendix 7.14).

This project has been successful in gaining industry uptake, supported with presentations by PMA Global CEO, Bryan Silbermann and PMA A-NZ Chair, Felicity Robson-Rous, promoting the Fresh Produce Safety Centre and this project to the 800+ delegates that attended PMA Fresh Connections in their own presentations at the wrap up of the Conference.

Discussion

Impact and adoption

The project has achieved all of its original objectives and more as set out below.

Industry supports the establishment of a Fresh Produce Safety Center.

Through industry workshops and outreach activities described above, a close working relationship, facilitated by HAL, members of the PMA and other industry organizations, has been developed to enable an open and collaborative dialogue on the desirability of establishing an industry driven Fresh Produce Safety Centre (FPSC) affiliated with the Center for Produce Safety (CPS) at UC Davis. Both anecdotal feedback and a formal survey, indicate that the industry has given strong support for the establishment of a centre with the goal of filling the knowledge gaps on produce food safety in Australia and New Zealand, and protecting and enhancing food quality.

The survey indicated that industry saw the role of the FPSC as:

☐ Managing food safety research projects to fill gaps in knowledge,
☐ Providing education, information and news on fresh produce safety,
☐ Assisting in crisis management training, incident response planning and monitoring, with emphasis on effective outreach and training to growers and staff in remote areas.

Response to the survey clearly indicated that there is a significant gap in food safety research and outreach of research, and that the new centre will assist in ensuring that the roles of other organisation will not be duplicated.

The New Centre: Proposed Structure

The value of being affiliated with the CPS in the US is that the new centre can utilise and build on the existing structure and framework of the US model. The functioning of the Australian centre would be collaborative with the CPS but decisions and strategic direction taken independently of the CPS US.

The University of Sydney is pleased to confirm its in-principle support of the new centre for produce safety and has agreed to host the FPSC. The University has also agreed to support the centre by providing accommodation at no charge to the approximate value of \$25,000. The centre would be established as a not-for-profit incorporated entity.

Initially, the Australian Centre would consist of a Board of Directors and a Technical Committee. It would be managed by a part-time Executive Director with administrative assistance, as outlined in the diagram below.

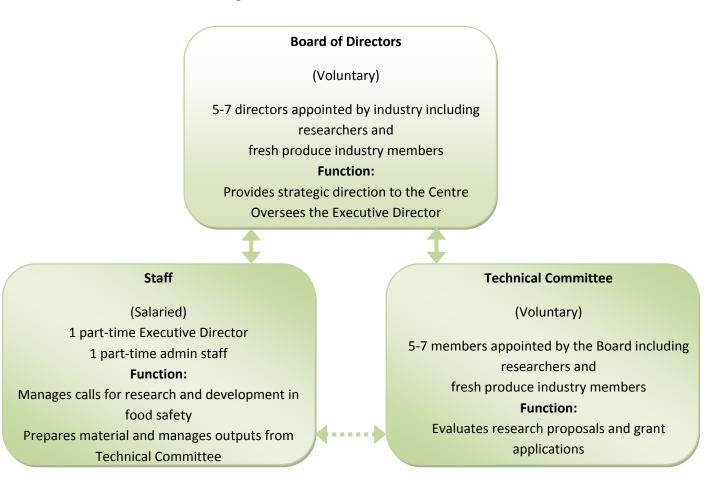


Figure 1. Proposed model for the Fresh Produce Safety Centre at the University of Sydney

In Australia, funding will be required for two purposes:

- a) Operational funds to establish and run the new Centre at the FAE, University of Sydney
- b) Research funds.

For operational funding, industry will be approached to provide a 5-year pledge at two tiers (Gold and Platinum). Research funds will also be sourced from industry and a key role of the Executive Director of the Centre will be to source and leverage these industry funds. The University has agreed to support the centre by providing accommodation at no charge to the approximate value of \$25,000 and PMA has pledged a similar amount for operational funds.

	2013-14	2014-15	2015-16	2016-17	2017-18
Operational Funding					
Platinum Pledges of	\$90,000	\$120,000	\$150,000	\$150,000	\$150,000
\$30,000 pa x 5 years					
Gold Pledges of	\$60,000	\$80,000	\$100,000	\$100,000	\$100,000
\$10,000 pa x 5 years					
Research Funding ²					
Industry funds	\$100,000	\$150,000	\$200,000	\$250,000	\$250,000
Matching funds from		\$150,000	\$200,000	\$250,000	\$250,000
Government granting					
agencies ³					
Total	\$250,000	\$500,000	\$650,000	\$750,000	\$750,000

Companies will be approached for pledges on two tiers.

Expenses

Initial establishment costs would include space, staff, administration, fundraising.

	2013-14	2014-15	2015-16	2016-17	2017-18
Operational Expenses					
Accommodation ¹	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Executive Director ²	\$60,000	\$90,000	\$120,000	\$125,000	\$130,000
Administrative Staff ²	\$35,000	\$45,000	\$52,000	\$54,000	\$56,000
General Operating	\$30,000	\$40,000	\$53,000	\$46,000	\$39,000
Research Grants					
Industry funds	\$100,000	\$150,000	\$200,000	\$250,000	\$250,000
Matching funds from		\$150,000	\$200,000	\$250,000	\$250,000
Government granting					
agencies					
Total	\$250,000	\$500,000	\$650,000	\$750,000	\$750,000

Space to be provided by FAE.

² A start up pool of research funds will be raised from companies who will benefit directly from the research outcomes

³ Industry funds will be leveraged to secure matching funds from government including HAL, RIRDC, ARC Linkage.

² Starting at 2 days per week and increasing up to four days over the five year period; includes on costs.

Affiliation with the CPS at UC Davis

Industry clearly saw the benefits of FPSC affiliation with the CPS in the US through the opportunity to share research outcomes, build on the already substantial body of research that is directly applicable in Australia and for Australian and US scientists to work collaboratively on joint projects that benefit both industries. Importantly the project established a research partnership with CPS (appendix 4.4) calling for the Australian research community to apply for funding for two collaborative projects on topics identified as research priorities at the *Fresh Produce Safety - Building a New Paradigm* Forum in November 2012. The projects were assessed by a technical committee and selections forwarded to the CPS Technical committee for review. Final outcome will not be known until later in the year. This partnership gave the Australian industry access to \$3M worth of funding available through the CPS.

A further outcome is that Dr Robyn McConchie has been invited to take part on a panel at the CPS 2013 Research Symposium in Rochester New York State on 24-26th June.

Raised awareness of the importance and need to enhance food safety in Australia

Awareness of the risks of fresh produce safety has been raised amongst all stakeholders through a number of activities:

0	***************************************
	The visit from the CPS and PMA personnel Dr Robert Whitaker, Ms Bonnie
	Fernandez-Fenaroli, and Ms Lorna Christie at the Fresh Produce Safety - Building a
	New Paradigm Forum in November 2012 where 75 participants attended.
	Launching of the FPSC website in January 2013 which provides background
	knowledge and links to a large range of resources for industry.
	Monthly newsletters to 209 registered recipients highlighting recent activities,
	information and new research.
	Report on washwater safety and validation from Dr Robyn McConchie posted on the
	website and in the newsletter.
	Formation of a research partnership with the CPS calling for applications on two
	research priorities that were identified by industry.
	Presentation by Dr Robyn McConchie at the biennial Freshcare workshop where 65
	industry delegates attended.
	Hosting an industry based Food Safety Hub at the PMA A-NZ Fresh Connections
	Conference Trade Section in June 12 and 13 th .
	Presentation by Dr Robyn McConchie at the PMA A-NZ Fresh Connections
	Conference session on the project outcomes.
	Activities with stakeholders resulted in meetings with FZANZ recommended the
	FPSC would be an excellent hub or forum for liaising with industry and other
	national and international food safety regulatory bodies

Outreach of US based research outcomes for use in the Australian horticulture industries

The CPS has been established for over four years and during that time has given out over US\$11 million for fresh produce safety research. Over that time research outcomes have been disseminated to industry primarily through CPS Symposia held every year, through the website and through industry workshops. All of the information has been made freely available to the Australian industry with much of the outcomes posted on the FPS website. Further, presentations and summaries have been made available to industry at the workshops held during this project. Written feedback has highlighted that the content of the forums was

relevant, that the presentations were useful and relevant and that material provided is useful in their workplace.

Selected comments from the Fresh Produce Safety - Building a New Paradigm Forum

"Great Day! Excellent presenters and fantastic networking opportunities"

"Learning about US research will be useful for risk assessment work"

"Interesting to hear how US producers were able to collaboratively respond to food safety issues"

"A good initiative which I believe will improve the situation here"

"Excellent opportunity to be involved with a forum supported by a group of knowledgeable guests"

"Keep this group communicating and build on it"

"This should be an annual event"

"Great Concept - hope it happens"

Identification of priority gaps in knowledge, research and commercial application in food safety in the Australian context.

Industry feedback on fresh produce safety research priorities was sought at the *Fresh Produce Safety - Building a New Paradigm* Forum in November 2012, the Freshcare 2013 Workshop and again via an industry survey, with similar priorities being identified on each occasion. Figure 1 below show the key areas industry would like addressed:

Food Safety Research Priorities for the Australian Fresh Produce Industry

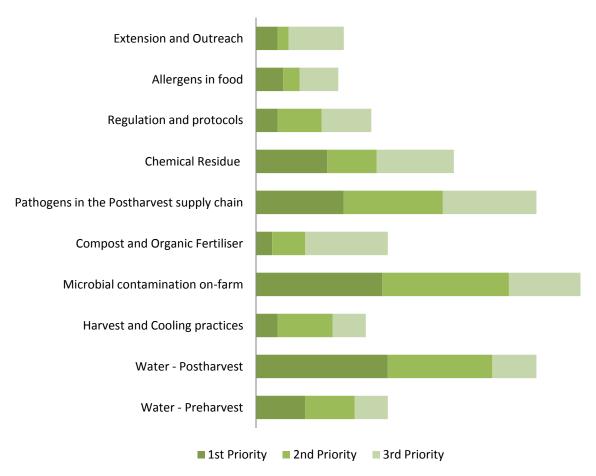


Figure 2. Food safety research priorities identified with respondents asked to choose their top 3 research areas.

Funds have been expended according to budget with little variation as shown in the budget reporting template (appendix 8.0). Note the project is due for completion on 20th Aug 2013, by which time all expenditure will have been spent.

Recommendations

and will enhance adoption of outcomes. A Fresh Produce Centre affiliated with the CPS at UC Davis be established at the П University of Sydney by PMA. The PMA Food Safety Task Force be tasked with establishing a Board of Directors for the FPSC that a) represents all stakeholders in the industry and b) represents the skills, experience and understanding of fresh produce safety, required to manage the Centre. The Board of Directors in addition to the PMA task force be responsible for seeking financial pledges for operational and research funding purposes for the next three years. ☐ The Board of Directors liaise directly with the CPS at UC Davis to formally establish affiliation links The Board of Directors seek to formally appoint the current technical committee as the committee to review ongoing grant proposals within the FPSC. The Board of Director advertise and appoint an Executive Director and administrative assistance to proceed with leveraging industry funds and calling for research proposals from the Australian research community The FPSC continue discussions with FZANZ and State Regulatory authorities to establish a forum for linking industry with regulatory body requirements A symposium/workshop with industry stakeholders be held in September 2013 to report on the role and activities of the FPSC and to continue requests for financial support. Research outcomes of the CPS 2013 will also be presented since Dr Robyn McConchie has been invited to take part on a panel at the CPS 2013 Research

Symposium in Rochester New York State on 24-26th June.

The activities and outcomes of the project strongly support the following recommendations

Acknowledgements

The project team wishes to thank the Nancy Roma Paech Bequest to the Faculty of Agriculture and Environment and the PMA for providing the voluntary contributions for this project. We wish to also thank the support and advice from the PMA A-NZ Task force chaired by Mr Fabian Carniel Joint CEO, Mulgowie Farming Company, Qld, Ms Erika Watson, Project Officer Food Safety Project for so ably managing the many facets of this project and Mr Richard Bennett, Portfolio Manager Food Integrity for his ongoing encouragement. We especially wish to thank the CPS US and the PMA US for so generously sharing their advice, time and research material with the project and the Australian industry.

Appendices

appendix 1.1



An Overview of Fresh Produce Safety in Australia







This project has been funded by HAL using voluntary contributions from The University of Sydney's' Faculty of Agriculture and Environment and PMA Australia – New Zealand and matched funds from the Australian Government.

Compiled by Erika Watson, Project Officer – Fresh Produce Safety, Department of Plant and Food Science,

Faculty of Agriculture and Environment, University of Sydney, Australia.

October 2012

Executive Summary

Australian horticultural food safety and quality assurance certification began in 1993, with South Australian citrus producer, Yandilla Park Ltd, becoming certified to the ISO9002: 1987 Quality Management System Standard. In 1995 the SQF2000^{CM} Quality Code, effectively a combination of the Codex Hazard Analysis and Critical Control Points (HACCP) standard and aspects of ISO9002, was launched by the Western Australian Department of Agriculture. In 2000, an industry owned HACCP-based scheme known as the Freshcare Code was introduced to meet the needs of indirect grower and packer suppliers to the major retailers and direct suppliers to wholesalers and processors. Freshcare is now the most widely adopted system, and is up to its 3rd edition (2009) of the Code. Currently there are nine systems to achieve certification available to the Australian industry, with an estimate of 70 – 80% of production certified to one or more of these systems.

National regulated food safety standards were adopted by state government and became enforceable by local government as of February 2001. The standards were directed at processors, wholesalers and retailers. Growers and packers were exempt from the Food Safety Standards¹; however they were and still are indirectly implicated due to processors, wholesalers, and retailers requiring suppliers to deliver produce that is not contaminated. FSANZ is currently reviewing the feasibility of a new chapter of the Food Standards Code, addressing horticultural production, aiming to strengthen food safety and traceability throughout the food supply chain. Horticulture Australia Ltd has supplied the Fresh Produce Industry with Food Safety Guidelines (2004) (in conjunction with the Department of Agriculture Fisheries and Forestry)² and Crisis Management Guidelines (2010)³ within its Product Integrity Portfolio.

Research areas that have been identified to improve food safety in Australia are pre-harvest and postharvest water quality, fecal presence in the field (compost/fertiliser quality), and knowledge and implementation of good hygiene practice along the supply chain. Industries identified as particularly vulnerable to contamination are fresh cut vegetables such as lettuce and herbs, melons, berries and raw nuts. Increasingly, implementation of traceability of produce is being explored as this is an area that delays response to a food safety crisis in fresh produce. Finally there is an ongoing focus to improve communication and extension within the industry to improve the attitude toward implementation of food safety systems and risk management.

⁻

http://www.foodstandards.gov.au/foodstandards/foodsafetystandardsaustraliaonly/ | last accessed 16 Oct 2012
 Unknown Author, Guidelines for On-Farm Food Safety for Fresh Food Safety for Fresh Produce, 2nd Edition, (2004), DAFF. Sourced from:

http://www.horticulture.com.au/librarymanager/libs/140/Guidelines for On Farm Food Safety for Fresh Produce Second Edition.pdf | last accessed 16 Oct 2012.

³ Horticulture Industry Crisis Management Guidelines, Version 1.0, (2010), HAL. Sourced from: http://www.horticulture.com.au/librarymanager/libs/140/Horticulture%20Industry%20Crisis%20Management%20 Guidelines.pdf | last accessed 16 Oct 2012.

Background to Regulation in Australia

Food safety regulation at both a State and Federal level is currently only directly applicable post farm gate, stemming from an independent statutory agency called Food Standards Australia New Zealand (FSANZ), which was established by the Food Standards Australia New Zealand Act 1991 as part of the Australian Government's Health and Ageing portfolio.

In 2000, FSANZ developed the Food Safety Standard and joint codes of practice with industry, to regulate the use of ingredients, processing aids, colourings, additives, vitamins and minerals and covers the composition and labelling of food sold in Australia and New Zealand. Within the Standard produce processing activities are addressed, including freezing, drying, pickling, canning, cook-chill, juicing, slicing/shredding and coring. This was undertaken with the advisory assistance from The Horticultural Working Group, consisting of representatives from the industry, retail, government regulators and consumers.

In March 2012, FSANZ released a request for submissions regarding a new area for potential development of the Food Safety Standard, the Primary Production and Processing (PPP) Proposal⁴ for the Australian horticulture sector. The PPP standard aims to strengthen food safety and traceability throughout the food supply chain inclusive of on-farm activities. There requirements on horticultural production outside industry based, non-regulatory schemes. This creates confusion, duplication, high implementation costs and inconsistencies in the implementation and auditing of food safety systems that are available. PPP standards already exist for egg, seafood, dairy, sprout and poultry meat production.

The PPP proposal addresses the lack of national consistent food safety requirements for primary production of horticultural produce. The scope of this proposal covers fresh horticultural produce, including fruit, vegetables, mushrooms, herbs and nuts that are provided for sale in the fresh state and covers growing, harvest, primary processing (washing, trimming, postharvest treatments), packing, storage and transport. The development of this proposal aims to take into account existing food safety requirements including existing regulations, industry codes of practice or guidelines and accredited food safety systems.

Addressing Food Safety and Crisis Management in the Industry

Horticulture Australia Limited (HAL) was established (2001). HAL is the industry owned research and development and marketing corporation for the Australian horticulture sector. There are currently 40 members which are the Peak Industry Bodies (PIBs) of Australia's major horticultural industries. HAL is funded by a combination of statutory industry levies, voluntary contributions from grower associations and commercial enterprises, and Australian Government matching funds for eligible R&D activities. HAL's distribution of funds in R&D and marketing involves consultation with Industry Advisory Committees and Members⁵.

http://www.foodstandards.gov.au/ srcfiles/P1015%20Horticulture%20PPPS%201CFS%20FINAL%20v2.pdf | last accessed 16 Oct 2012.

⁴ Call for submissions – Proposal P1015, Primary Production & Processing Standard for Horticulture, 2012, FSANZ. Sourced from:

⁵ Horticulture Australia Limited, Annual Operating Plan 2012-1013. Sourced from: http://www.horticulture.com.au/librarymanager/libs/149/HAL469%20-%20AOP%20LR.pdf

The Product Integrity Portfolio⁶ within HAL aims to manage processes and projects that reduce the likelihood and severity of foodborne illness and residue violations and provide mechanisms to manage incidents. A priority of HAL is to ensure certification systems have an all-hazards approach but remain flexible to incorporate emerging issues without reducing the competitiveness of the business with high internal costs of implementation, maintenance and auditing.

Publically available documentation includes an outline of the quality assurance choices for Australian horticultural producers and packers (2005) ⁷ and the *Guidelines for On-Farm Food Safety for Fresh Produce, 2nd Ed.* (2004), following the guidelines developed by the Horticultural Working Group in 2001. The Guidelines were published in collaboration with the Federal agency, the Department of Agriculture, Fisheries and Forestry (DAFF) and an advisory committee composed of various industry and government representatives as part of the National Food Industry Strategy – Food Safety and Quality Assurance Initiative. The scope of these guidelines were to assist growers, packers, auditors, trainers, facilitators and consultants to assess the risk of food safety hazards occurring on-farm, and to provide information on Good Agricultural Practices (GAPs) based on the Hazard Analysis and Critical Control Points (HACCP) method⁸.

The guidelines address microbiological, chemical and physical food safety hazards and outline the steps in growing a crop where a food safety hazard may arise. It mentions four inputs in farm practice where risk of contaminating the produce is most great – soil, fertilisers, water and people and provides critical limits where applicable. Finally, these guidelines present information on what to test for, how often to test and the sampling methods to use. The requirement for chemical and microbiological testing is an area of uncertainty and concern in need of local and applicable scientific research. This has also been identified recently in the PPP Proposal by FSANZ in Supporting Document 2. The *Review of foodborne illness associated with selected ready-to-eat fresh produce*⁹, which suggests there is a lack of good quality scientific data identifying the specific production and processing practice that causes produce to become contaminated. The commodities of greatest concern are soft fruits in particular melons (cantaloupe and honey dew) and vegetables such as leafy greens (lettuce, spinach). The cause for most out breaks are due to pre-harvest and postharvest water (irrigation, washing produce), then faecal contamination in the field and finally poor hygienic practices along the supply chain. Table 1 outlines the critical limits for areas of contamination mentioned in the guidelines.

Last accessed 16 Oct 2012.

http://www.horticulture.com.au/librarymanager/libs/140/QA%20situation%20for%20Aust%20hort%2004.05.pdf | last accessed 16 Oct 2012

http://www.foodstandards.gov.au/ srcfiles/P1015%20Horticulture%20PPPS%201CFS%20SD2%20Illness%20re view.pdf | last accessed 16 Oct 2012.

⁶ Bennett, Richard_a, Strategic Plan: Product Integrity Portfolio 2007-2010, (2007), HAL.

⁷ Bennett, Richard_b, *The QA situation for Australian Horticultural producers and packers*, (2005), HAL. Sourced from:

⁸ footnote ². Unknown Author, loc.cit.

⁹ Supporting Document ,Review of foodborne illness associated with selected ready-to eat fresh produceProposal P1015 Primary Production & Processing Requirements for Horticulture, (2011) FSANZ. Sourced from:

Table 1. Critical Limits for contamination from Chemical and Microbiological sources. Information summarised from The Guidelines for On-Farm Food Safety for Fresh Produce (2004), DAFF.

	Chemical Contamination Microbiological Contamination								
Notes	General rule: Test once each growing season for the first 12 months, then every 12 months after that. Do not apply untreated animal manure within 60 days of Harvest. The Australian Chamber of Fruit and Vegetable Industries Ltd represent merchants and agents in Australia's six central markets. They manage FreshTest (chemical and microbial contaminant analysis service) and FreshSpecs (product specification for produce labelling in pack houses) ¹⁰ .								
	Produce Testing	Water Testing	Soil Testing						
Critical Limits	A list of Maximum Residue Limits is provided by the Australian Pesticides and Veterinary Medicines Authority (APVMA), and FSANZ. E.coli level exceeds 20 cfu/g Listeria — if level exceeds 100 cfu/g on fresh produce at consumption Salmonella if detected in a 25 g sample of fresh	Class A reclaimed water is safe for irrigation, lower classes should not come into contact with harvestable portion of crop. Dam Water for irrigation: if thermotolerant coliforms in water exceed 1000cfu/100ml Water Dump for unloading field containers: if thermotolerant coliforms in water exceed 100 cfu/100ml handwash/washing: if	500 g representing production zone of 1500 tonnes/ha to a depth of 10 cm.						
	produce	thermotolerant coliforms in water exceed 10 cfu/100ml							
When to test	Test at times when the likelihood of contamination is highest and frequency to manage risk.	Test at times when the likelihood of contamination is highest and frequency to manage risk.	The procedure used to collect a sample should reflect the reason for collecting it, a representative of the production area.						
How to sample	small or light products - unit weight up to 25 g (1 kg minimum) medium sized products, unit weight 25 to 250 g (1 kg, at least 10 units) large products, unit weight > 250 g (2 kg, at least 5 units)	Test water in contact with produce. Unit of each sample – 100mL	25-30 cores taken from 20- 30 m in diameter.						

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¹⁰ http://www.freshmarkets.com.au/ last accessed 16 Oct 2012.

HAL has also published *Horticulture Industry Crisis Management Guidelines* (February 2010). These guidelines were created to assist members of the horticulture industry to respond to a crisis or uncontained situation on an individual company level, specific industry level or encompass a cross section of the horticulture industry. Within these guidelines, a self-assessment tool is included to determine preparedness to manage an uncontained situation for Peak Industry Bodies. HAL's Horticultural crisis management framework is outlined in Figure 1, while the crisis response flowchart is demonstrated in Figure 2. When a crisis is initiated, recall protocols, media responses, customer and consumer enquiries and emergency quality assurance should all be included in the contingency planning and management of the crisis.¹¹

It should be noted that the HAL Crisis Reference Group is in name only. HAL is not a Peak Industry Body and ultimate responsibility for industry response falls to the appropriate commercial entity or industry. HAL will provide advice as appropriate and when requested but will not take a lead role. HAL is currently working with its members to up skill industry in crisis management and to put individual crisis management plans in place.

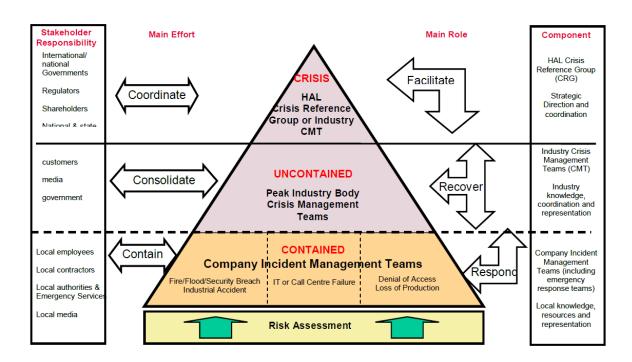


Figure 1. Horticulture Crisis Management Framework for companies, PIBS, and HAL. Taken from the Horticulture Industry Crisis Management Guidelines, (2010) HAL.

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¹¹ Footnote ³ loc.cit

Typical response flow



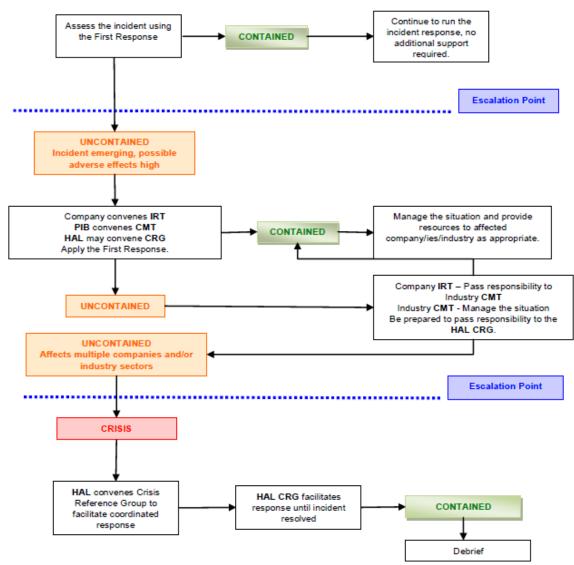


Figure 2. Crisis Response Flowchart, from Horticulture Industry Crisis Management Guidelines, (2010) HAL. Abbreviations: IRT - Incident Management Team , PIB - Peak Industry Body, CMT -Crisis Management Team, CRG – Crisis Response Group.

Food Safety and Quality Assurance Schemes

Consumer preferences and expectations drive food safety and quality assurance as safe food has high consumer importance after food price and quality. Australian horticultural food safety and quality assurance certification began in 1993, with the ISO9002: 1987 Quality Management System Standard. This was then combined with the Codex Hazard Analysis and Critical Control Points (HACCP)¹² standard in 1995 to give rise to SQF2000^{CM} Quality Code, launched by the Western Australian Department of Agriculture. SQF2000^{CM} is most suitable for packers, while a similar Quality

¹² http://www.haccp.com.au/ last accessed 16 Oct 2012.

code, SQF1000^{CM} is more suitable for growers. Both are now receiving recognition by European retailers. These systems are acceptable for direct and indirect suppliers for Coles and indirect suppliers to Woolworths¹³.

In 2000, an industry owned HACCP-based scheme known as the Freshcare Code was introduced to meet the needs of indirect grower and packer suppliers to the major retailers and direct suppliers to wholesalers and processors. Freshcare 14 is now the most widely adopted system, and is up to its 3rd edition (2009) of the Code. The Freshcare Food Safety and Quality Code is undergoing technical review, updating water pre-harvest and postharvest microbiological limits, critical limits of organic fertilisers and the approved supplier process. Throughout 2012, Freshcare aims to achieve Global Food Safety Initiative Benchmarking and update the Freshcare certification rules¹⁵.

Large retailers in Australia such as Woolworths, Coles and IGA have mostly met the Food Safety requirements with almost all packers and wholesalers who supply direct to their distribution centres certified to an acceptable system. Approved supplier programs are also HACCP based. Key retailers have tailored their requirements and have established specific certification audits to ensure their needs are met. Those supplying direct to Woolworths for example, are required to be certified to the Woolworths Quality Assurance (WQA) program, and includes growers, packers, processors, wholesalers and transport. Those that supply indirectly are required to take up a Food Safety and Quality assurance scheme that their customer requires. Most growers/grower-packers are indirect suppliers and require certification with 3rd party audits annually to ensure the food safety system is in place and effective. Freshcare is the most commonly adopted scheme and also can be conducted with implementation of add-ons such as the Coles supplement or an environmental code. Table 2 outlines the nine most commonly adopted schemes and which parts of the supply chain they are applicable to, while table 3 shows the approximate number of certifications each scheme has. It is difficult to determine if this is an accurate representation of the number of producers certified however as some producers hold multiple fresh produce certifications or fresh produce is not their only primary production and they hold certification to other schemes for other products.

Food safety implementation, management and auditing are predominantly a customer and/or regulatory requirement. While certification is important and it is a useful objective measure of compliance to food safety standards and codes, the primary aim of system owners, facilitators, auditors and the supply chain members alike is the production of safe food all day every day. Organisations such as the Australian Institute for Food Science and Technology (AIFST), and private providers such as TQA Australia and PMA also take an active role.

¹³ Bennett_b, footnote⁷, loc.cit.

http://www.freshcare.com.au/ last accessed 16 Oct 2012 Personal communication, Clare Hamilton-Bate, Freshcare, September 2012.

Table 2. Food Safety Systems applicable across the food supply chain (FSANZ Supporting Document 3, PPP Proposal).

System / code of practice and current version	Primary producer	Transport ¹⁶	Packer	Processor	Transport ¹⁷	Food manufacturer	<u> e</u>	Retailer / Food service
Salad GAP – Version 1.1 (September 2008)	✓	×	×	x	x	x	x	x
Freshcare Code of Practice (3rd Edition – July 2009)	✓	✓	✓	x	×	x	×	x
SQF1000 Code – 5th Edition August 2009 – Revised January 2010 (Level 3)	✓	✓	✓	x	×	x	x	x
GlobalG.A.P Integrated Farm Assurance – Version 4.0_Mar2011	✓	✓	✓	x	×	x	x	x
Additional Coles Supplier Requirements – Food (CSR-FV3 May 2011) ¹⁸	✓	×	✓	✓	×	✓	×	x
Woolworths Quality Assurance – Primary Production – Produce – Version 7 January 2011	✓	✓	✓	✓	✓	x ¹⁹	√	x
SGS HACCP – Client Audit Checklist Version 2.7 (19/06/2011)	✓	✓	✓	√	✓	√	x	x
BRC Global Standard for Food Safety – Issue 6 – July 2011	×	×	✓	✓	✓	✓	x	x
SQF2000 Code – 6th Edition August 2008 – Amended July 2010 (Level 3)	×	×	✓	✓	✓	✓	✓	x

Transport from primary producer to packer / processor.

Transport from packer / processor to distribution centre / wholesaler / retailer / storage.

Suppliers are required to be certified to Coles Requirements in addition to another approved standard such as SQF 2000, Freshcare or BRC.

Food manufacturers are covered under a different WQA Standard (Manufactured Foods).

Table 3. Number of certifications in the horticultural sector (FSANZ Supporting Document 3, PPP Proposal P1015).

Standard name	Numbers in Australia		Comments		
	Standard owner	Certification Bodies (CB)			
BRC Global Standard for Food Safety – Issue 6 – July 2011	3 ²⁰	27	Numbers from CB's include meat establishments (CB's unable to sort)		
Coles Supplier Requirements – Food (CSR-FV3 May 2011)	>600 ²¹	499			
Freshcare Code of Practice (3rd Edition – July 2009)	2797 ²²	3157	CB's may include those that have chosen to be suspended or have withdrawn themselves from the program in the last year.		
GlobalG.A.P Integrated Farm Assurance – Version 4.0_Mar2011	112 ²³	97			
Salad GAP – Version 1.1 (September 2008)	51 ²⁴	0	No Salad GAP numbers provided by any Certification Body		
SGS HACCP – Client Audit Checklist Version 2.7 (19/06/2011)	-	2934	This number includes other food manufacturers and processors (not just restricted to horticulture)		
SQF2000 Code – 6th Edition August 2008 – Amended July 2010 (Level 3)	40 ²⁵	493	This number includes other food manufacturers and processors (not just restricted to horticulture). CB's unable to		
SQF1000 Code – 5th Edition August 2009 – Revised January 2010 (Level 3)	76 ²⁶	433	sort between 1000 and 2000.		
Woolworths Quality Assurance – Primary Production – Produce – Version 7 January 2011	Unavailable	838			

²⁰ Sourced from British Retail Consortium Certification database (via BRC website)
²¹ Pers. Comm – Marion Bray (Coles)

²² Sourced from Freshcare Limited
²³ JAS-ANZ Certification database (via JAS-ANZ website)
²⁴ Sourced from Freshcare Limited
²⁵ Sourced from SQFI Certification database (via SQFI website)

²⁶ Sourced from SQFI Certification database (via SQFI website)

Tasmanian Quality Assured Australia (TQA Australia) has been involved in the interpretation, training, development, implementation and maintenance of food safety and quality assurance systems relevant to primary production for 15 years²⁷. TQA works on developing solutions for domestic (Freshcare, WQA, Coles Requirements) and international food safety standards, such as BRC, HACCP, GlobalG.A.P and SQF. TQA was most recently contracted by FSANZ to contribute to the PPP Proposal in Supporting Document 3 *Review of Food Safety Systems in Australian Horticulture*²⁸, to report on the uptake and nature of food safety schemes currently present in Australia, nine of which are considered the most widely accepted 3rd party audited systems. It proved difficult to determine the level of participation in these various food safety systems as there were a number of organisations collecting and collating information on the producers and a number of system owners and certification bodies collating information on food safety system certifications. Many producers maintain certification to multiple systems but it was estimated that 70 to 80% of horticultural production in Australia is grown under one or more of these food safety systems.

Some certification systems have gaps, including covering indirect suppliers to retailers and some specialist suppliers to processors. Traceability is included in the food safety and quality assurance schemes. However it is important to maximise traceability and electronic data exchange efficiency between suppliers and customers. The Fresh Produce Industry has adopted the GS1 standards for numbering and barcoding. GS1 Australia manages these standards, Price Look Up (PLU) Codes and a catalogue of National Global Trade Item Numbers for Non Retail Trade Units of Loose Produce on behalf of industry, . GS1 Australia leads a Fresh Produce industry working group (including Montague Fresh, Panda Ranch, Woolworths, Metcash, Coles, HAL, Avocadoes Australia, Ausveg, Perfection Fresh, PMA Australia-New Zealand) that assists in developing, implementing and resolving any issues related to the uptake of the GS1 System²⁹.

Grower and pack house software to record production and traceability information is vital and there are now many proprietary products available to industry to achieve this. For FSANZ and state health agencies, traceability has been the biggest issue in terms of delaying the response time to identify the source of a food safety crisis.

Southern Hemisphere competitors - New Zealand, South Africa and Chile - are generally more export focused and dependent and thus better coordinated and resourced, more or less obtaining GLOBALGAP certification or equivalent.

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http://www.tqaaustralia.com.au/ last accessed 16 Oct 2012.

²⁸ Supporting Document 3, Review of Food Safety Systems in Australian Horticulture, Proposal P1015, Primary Production and Procession Requirements for Horticulture, (2011), FSANZ. Sourced from: http://www.foodstandards.gov.au/_srcfiles/P1015%20Horticulture%20PPPS%201CFS%20SD3%20FS%20systems.pdf | last accessed 16 Oct 2012.

http://www.gs1au.org/industry/fresh_produce.asp last accessed 16 Oct 2012.

Current Food Safety Projects in Industry Operating in Australia

The most recent food safety project operating within the fresh produce industry is with the Australian Melon Association Inc., which began in September 2012. This project is to explore best management practices for food safety in the Australian melon industry. The development of a kernel assessment and laboratory accreditation scheme for Macadamias is also under way as June 2012. The mushroom industry conducts an annual review of AMSAFE, its Crisis Management Plan, and is currently reassessing the food safety status of Mushrooms (*Agaricus bisporus*) (March 2012). The almond industry is onto stage 2 of their Food Safety project focussed on *Aspergillus* infection, which was initiated in September 2011 and has the Victorian Department of Primary Industries as the service provider. The almond industry is also researching harvesting practices that minimise microbial contamination opportunities. The biological control of pathogen infestation in pre-harvest and postharvest strawberry crops were begun in July 2011.

A number of industries have completed or propose emergency response planning. HAL has also initiated a multi-industry project to enhance confidence in product integrity in domestic and export markets. Other industries to undertake food safety projects since 2007 include the Pistachio Growers (microbial contamination), the Salad Producers' Forum (development of SaladG.A.P.), and the Vegetable Industry (review of existing and novel postharvest sanitisers; reducing Listeria contamination). Across-industry and specific-industry funding supports addressing chemical registration issues including minor use permits and plotting Australian Maximum Residue Limits against those in key markets³⁰.

Key areas for collaboration to fill knowledge gaps in Food Safety

- Research and development exchange of critical limits for pre-harvest and postharvest water quality, compost and fertiliser faecal presence, and good hygiene practice along supply chain.
- Specific produce industries with current research interests Melons, Almonds and other nuts, fresh cut produce.
- Traceability implementation.
- Ideas on approved supplier processes.
- Flexible crisis management ideas and implementation.
- Improving/obtaining Global Food Safety Initiative Benchmarking.
- Updating certification rules, codes of conduct and food safety guidelines for extension.

³⁰ Personal communication with Richard Bennett and Philippa Lorimer, HAL, on food safety projects.

Examples of other bodies working in Food Safety/who will be attending the Food Safety Forum (as of 22 October 2012).

- Faculty of Agriculture and Environment, University of Sydney.
- McAlpine Management Services Pty Ltd.
- Hort VC Group.
- Palmer Produce Management.
- Global FS Pty Ltd.
- NSW Department of Primary Industries.
- Perfection Fresh.
- Produce Marketing Australia.
- Coles Supermarkets.
- Commonwealth Scientific and Industrial Research Organisation (CSIRO).
- TQA Australia.
- Fresh Select, Australia.
- PickMee! Fruit Company Ltd.

- PMA Australia and New Zealand.
- Frontline Services Australia Pty Ltd.
- Rudge Produce Systems.
- QMGS.
- AUS-QUAL Pty Ltd.
- NCS International Pty Ltd.
- Turners and Growers Limited.
- Aussie Farmers Direct Pty Ltd.
- Goldenfruit Pty Ltd.
- Salad Fresh.
- Food Safety Centre (FSC), Tasmanian Institute of Agriculture (TIA), University of Tasmania.
- Fresh Produce Group.
- GS1 Australia.
- Department of Agriculture, Fisheries and Forestry, Federal Government.
- Carter and Spencer Group Pty Ltd.

appendix 1.2



Background to the Hosts

A brief introduction to each place visited while in Australia Monday 5th November to the Wednesday 7th November







Ausveg
Coles
Freshcare
Fresh Select
Fresh State
Horticulture Australia Limited (HAL)
IGA

Moraitis Group
Sydney Wholesale Markets
Salad Fresh
University of Sydney - Faculty of Agriculture and
Environment (FAE)
Woolworths

This project has been funded by HAL using voluntary contributions from The University of Sydneys' Faculty of Agriculture and Environment and PMA Australia – New Zealand and matched funds from the Australian Government.

Compiled by Erika Watson, Project Officer – Fresh Produce Safety, Department of Plant and Food Science, Faculty of Agriculture and Environment, University of Sydney, Australia.

October 2012

Ausveg

AUSVEG is the national peak industry body representing the interests of Australian vegetable and potato growers. They represent the interests of growers to government and assist growers by making sure the National Vegetable Levy and National Potato Levy are invested in research and development (R&D) that best meets the needs of the industry. Their main roles are to provide representation for the vegetable and potato growers and provide agri-political advocacy, provide R&D services such as establishing a case for a levy, seek a mandate from growers and make submission to the Australian Government, recommend Industry Advisory Committee (IAC) members to Horticulture Australia Limited (HAL) for the purpose of making decisions on annual investment, provides broad consultation on behalf of industry on issues such as biosecurity and finally delivers national projects in the areas of communication and environment on behalf of industry, funded from a wide variety of sources including Government grants, sponsorship and levies.

For more information visit: <u>ausveg.com.au</u>

Coles

Coles is a leading national food, liquor and convenience retailer in Australia, employing more than 102,000 team members across its brands, which include Coles and Bi-Lo supermarkets, Coles Express, 1st Choice Liquor Superstore, Liquorland, Vintage Cellars and Spirit Hotels. Founder, George Coles opened the first Coles Variety store in 1914 in Melbourne, Victoria, Australia. In 1960, Coles opened its first supermarket in North Balwyn Victoria. Australia. By 1973, there was a Coles Supermarket in every Australian capital city. Coles is a leader in Australian food retailing and is now owned by Wesfarmers Ltd.

For more information visit: www.coles.com.au

Freshcare

Freshcare is an industry owned, not-for-profit on-farm assurance program, established and maintained to service the Australian fresh produce industry. Freshcare is currently the largest Australian on–farm assurance program for fresh produce; providing on-farm food safety & quality and environmental certification services to over 5000 members nationally. The foundations of the Freshcare Program are the user-friendly Codes of Practice and detailed training support materials. The Freshcare Codes describe the practices required on farm to provide an assurance that fresh produce is safe to eat, has been prepared to customer specifications and legislative requirements; and has been grown with care for the environment.

The Freshcare Codes of Practice can also be incorporated with other quality, food safety and farm management schemes.

For more information visit: www.freshcare.com.au

Fresh Select

Fresh Select supplies selected vegetables to local and overseas markets including cos lettuce, baby broccoli and cauliflower to retailers such as Coles supermarkets, Australia. They are based in Melbourne's Werribee South and have been operating for over 45 years, combining experience in growing, wholesaling and retailing in the vegetable industry. Fresh Select has been recognised for its market-leading approach to supplying fresh produce, and holds SQF 2000 (Level 3), HACCP and Coles accreditations.

For more information visit: www.freshselect.com.au

Fresh State

Fresh State is a Victorian State Chamber and member of the Australian Chamber of Fruit and Vegetable Industries. The Australian Chamber of Fruit and Vegetable Industries is the national body representing Australia's fresh fruit and vegetable Market Wholesalers. As the state body in the Fresh Produce Industry, Fresh State improves prosperity of its members and the fresh produce industry in general by creating unity amongst wholesalers of the fresh produce industry in Victoria; opening channels of communication and co-operation with other associations and industry groups; encourage growers to use Melbourne Markets and our members facilities in the marketing of their produce; and protect and promote the interests of all members in matters affecting their business and trading operations in Victoria.

For more information visit: <u>freshstate.com.au</u>

Horticulture Australia Limited (HAL)

Established in 2001, HAL is the industry owned research and development corporation for the Australian horticulture sector. There are currently 40 members which are the Peak Industry Bodies (PIBs) of the Australia's major horticultural industries. HAL is funded by a combination of statutory industry levies, voluntary contributions from grower associations, commercial enterprises, and Australian Government matching funds. HALs distribution of funds in R&D and marketing involves consultation with Industry Advisory Committees and Members, and does not work directly with the levy payers or growers.

For more information visit: www.horticulture.com.au

IGA

IGA (Independent Grocers Alliance) was founded in America in 1926 and represents an alliance between wholesalers, retailers and manufacturers. IGA became the vehicle for protecting and strengthening the relationship of the three players against the growth of the chain stores. IGA was brought to Australia by Davids Holdings in 1988 when 10 stores initially became members of IGA. In more recent times independent retailers have come to realise the benefits of uniting together under one brand, and today there are over 1000 IGA stores in the country. Davids itself has changed its name to Metcash Trading Limited and the distribution side of the business changed to IGA Distribution.

For more information visit: www.iga.net.au

Moraitis Group

Moraitis is a leading vertically integrated fresh produce company with operations spanning; growing, processing and packing through to wholesaling. Moraitis has a wide-ranging product base that includes; Organics, Avocados, Strawberries, Cherries, and Citrus and is Australia's leading hard produce, hydroponic-tomato and banana supplier to the retail sector. Moraitis Group in NSW is home to the head office, Sydney Markets Moraitis Wholesale NSW and Moraitis Bananas NSW operations, together with our largest fresh packaging operation. Moraitis Fresh Packaging NSW enables pre-pack large quantities of produce to meet the specification and requirements of customers, providing storage solutions, inventory management, quality control (WQA, HACCP, SQF), category management, accounts management, and logistics and distribution services.

For more information visit: www.moraitis.com.au

Sydney Wholesale Markets

Sydney Produce Market is the largest fresh fruit and vegetable wholesale market in Australia and one of the largest in the world. It caters primarily to professional buyers from supermarkets, restaurants and green grocers but is also open to the public. People from all over NSW and the ACT, who together constitute almost one-third of Australia's population, consume the fresh produce sold through the market. As Australia's leading produce market, it has become the price barometer for fruit and vegetables in Australia. Sydney Produce Market provides opportunities for suppliers, wholesalers and buyers to build strong business relationships by providing a unique environment of healthy and open competition. The Sydney Produce Market is home to over 137 fresh produce wholesalers.

For more information visit: www.sydneymarkets.com.au

Salad Fresh

Salad Fresh has sites across Australia in Queensland, Victoria, and Western Australia. The Salad Fresh Company incorporates retail sectors Freshcut, Deli Salads, Ready Meals and Mrs Crockets branded products and PACCO from Western Australia and provides foodservice products to franchises, catering businesses and takeaway/fast food restaurants. Salad Fresh is HACCP accredited and supports Australian farmers and suppliers to deliver a 100% Australian Made and owned product. Salad Fresh has a National Quality Management framework that spreads responsibility across to the supply chain to ensure consistent produce, ingredients and packaging available, obtained only through approved and reputable growers, dealers and suppliers'; maintain legal and contractual responsibilities with regard to food safety and quality and work in partnership with our suppliers and service providers open.

For more information visit: www.saladfresh.com.au

The University of Sydney, Faculty of Agriculture and Environment (FAE)

FAE explores new frontiers in food production, carbon cycling and agricultural sustainability, offering exceptional research and teaching experience in diverse areas from molecular biology to international policy. The Faculty's prestigious international reputation for research excellence is reflected by great success in highly competitive research grants. FAE anticipate, and respond to, local, national and international needs for new knowledge. In the recent ERA ranking process conducted by the Federal Government, the FAE delivered a 5/5 score for the University of Sydney in two fields - Soil Science, and Crop and Pasture Sciences. We also contributed very strongly to another 5/5 in Plant Biology.

For more information visit: sydney.edu.au/agriculture

Woolworths

Since opening in Sydney's Pitt Street in 1924, Woolworths has grown into a household name with a presence in almost every metropolitan and regional centre in Australia and New Zealand. Fresh food stores began operating 60 years ago when advances in refrigeration technology revolutionised transport and storage. Woolworths has more than 3,000 stores across Australia and New Zealand that span food, liquor, petrol, general merchandise, home improvement and hotels. Woolworths is a proud Australian business, employer of more than 192,000 people and committed business partner of many thousands local farmers, producers and manufacturers.

For more information visit: www.woolworths.com.au

RUN-SHEET: Fresh Produce Safety Program Week November 2012, Australia.

Main Contacts:

Robyn McConchie (RM) +612 8627 1045 | +61 404 718 413 Bonnie Fernandez-Fenaroli (BFF)

Michael Worthington (MW) +613 8844 5536 |+61 409 181 034 Bob Whitaker (BW)

Erika Watson (EW) +612 8627 1005 |+61 450 061 434 Lorna Christie (LC)

DATE	TIME	WHAT	WHERE	PERSON/ ORGANISATION	CONTACT DETAILS	NOTES
Sunday 4 th November						
	Arrive 8:30 am	Check into Hotel	199 George St Sydney	BFF, BW, LC	Four Seasons, Sydney, 02 9250-3100	Confirmed
Monday 5 th November						
	6:00 am	Flight from Sydney to Melbourne		BFF, BW, RM, LC		Confirmed
	8.30 - 10.00 am	Fresh Select	610 Duncan's Road, Werribee	BFF, BW, RM, LC, MW	John Said 0418 393 029	Confirmed
	10.30 – 11.00 am	Freshstate (If time permits)	Footscray Road	BFF, BW, RM, LC, MW	John Roach 0415 767 737	Confirmed, but call on the day
	11.30 – 1.15 pm	Salad Fresh	20 Gilbertson Rd Laverton North	BFF, BW, RM, LC, MW	Hugh Baird 0409 249 214	Confirmed
	2.00 – 3.00 pm	Coles	800 Toorak Road, Hawthorn	BFF, BW, RM, LC, MW	Andreas Klieber	Confirmed
	3.15 – 4.00 pm	Ausveg	431 Burke Road, Glen Iris	BFF, BW, RM, LC, MW, David Moore (HAL) GM, R&D Services (HAL)	Richard Mulcahy	Confirmed
	5:00 pm	Fly Melbourne to Sydney		BFF, BW, RM, LC		Return to Hotel

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<u>RUN-SHEET:</u> Fresh Produce Safety Program Week November 2012, Australia.

DATE	TIME	WHAT	WHERE	PERSON/ ORGANISATION	CONTACT DETAILS	NOTES
Tuesday 6 th November						
	9:00 - 10.00 am	Woolworths IGA or ALDI	1 Woolworths Way, Bella Vista	BFF, BW, RM,LC	Alison Gallagher 0404 829 470	Confirmed
	10.30 – 11.30 am	IGA Fresh	4 Newington Rd Silverwater	BFF, BW, RM,LC	George Passas 0409 328 895	Confirmed (MW double-check)
	12.00 - 2.00 pm	FAE Introduction	FAE - Board Room 320	BFF, BW, RM, ,LC, EW Alex McBratney	RM	Confirmed Mark Adams
	2:00 - 4.00 pm	FAE		BFF, BW,LC, EW	EW	Join FAE Melbourne Cup Day BBQ
Wednesday 7 th November						
	6.00 am	Fly Melbourne to Sydney		MW	MW	Confirmed
Walk-through of markets		Sydney Markets	Flemington	BFF, BW, LC, RM, MW		Confirmed
before or after Fresh Care meeting	9:00 am	Fresh Care	Flemington	BFF, BW, LC, RM, MW	Clare Hamilton- Bate 0407 930 586	Confirmed
	11.00 – 12.00 pm	Moraitis Group	11 Carter Road, Homebush	BFF, BW, LC, RM, MW	Majella Furey	Confirmed

<u>RUN-SHEET:</u> Fresh Produce Safety Program Week November 2012, Australia.

DATE	TIME	WHAT	WHERE	PERSON/ ORGANISATION	CONTACT DETAILS	NOTES
Wednesday 7 th November						
	3:00 – 5.00 pm	Meeting with HAL	HAL Level 7, 179 Elizabeth Street Sydney	BFF, BW,LC, RM, MW HAL - Richard Bennett, Philippa Lorimer, John Lloyd, Warwick Scherf, David Moore	Richard Bennett 0429 329 731	John Lloyd (HAL General Manager R&D). Warwick Scherf (GM Industry Services) TBC - David Moore, HAL CEO.
		MW to check into hotel	Four Seasons Hotel. 199 George St Sydney		Four Seasons Sydney: 9250-3100	Confirmed booking
Thursday 8 th November						
	9:30 am – 4.00 pm	Forum "Fresh Produce Safety - Building a New Paradigm."	Law School Foyer, Law Building Eastern Avenue University of Sydney	University of Sydney - Erika Watson	EW	
	4.00 – 6.00 pm	Cocktail Reception				
	4.30 – 5.00 pm	PMA A-NZ Food safety Task Force				

RUN-SHEET: Fresh Produce Safety Program Week November 2012, Australia.

DATE	TIME	WHAT	WHERE	PERSON/ ORGANISATION	CONTACT DETAILS	NOTES
Friday 9 th November						
	9:00 am	Debrief Outcomes Next steps	FAE – USyd Board Room 320	BFF, BW, RM, EW, MW, Richard Bennett, Philippa Lorimer.	RM, EW	Confirmed
Saturday 10 th November						
	9.00 am	BW to check out of hotel and fly to USA		BW		Confirmed
Sunday 11 th November					2	
	8.00 – 10:00 am	BFF to check out of hotel and fly to USA MW to check out of hotel – fly to Melbourne		BFF, MW		Confirmed
Monday 12 th November						
	10.00 am	LC to check out of hotel and fly to USA		LC	N	Confirmed

NB: All international and domestic flights and accommodation for BW and BFF are covered for by the Project.

NB: All domestic flights, car hire and accommodation (where necessary) for RM, MW and EW are covered by the Project.

NB: All costs associated with the Forum are covered by the Project.

NB: All costs for LC are covered by PMA (US).

FRESH PRODUCE SAFETY-BUILDING A NEW PARADIGM



A must attend event for everyone involved in fresh produce safety in Australia!

- Wholesalers and Retailers







this new and exciting fresh produce safety initiative!

The day will address the current status of fresh produce safety in Australia and how the industry can collaborate more effectively to improve our preparedness for a major crisis, and to ensure our consumers are receiving fresh produce

Your chance to actively participate in

Delegates will gain insights into how the USA's Center for Produce Safety has successfully linked fresh produce safety research priorities with industry extension and crisis management, and how the Australian fresh produce industry can benefit from their experience.

A COLLABORATIVE PROJECT

This project has been funded by HAL using voluntary contributions from the University of Sydney's Faculty of Agriculture and Environment and PMA Australia - New Zealand and matched funds from the Australian Government. The Forum will feature:

- Dr. Robert Whitaker, Chief Science and Technology Officer, PMA, Chairman of the Technical Advisory Committee, CPS:
 - · Evolution of food safety in the US: lessons learned
 - · The role of food safety research: scientific and business implications
- Ms. Bonnie Fernandez-Fenaroli,

Executive Director, CPS:

- · Center for Produce Safety: an approach to filling industry food safety knowledge gaps
- Ms. Lorna Christie, Executive Vice President and Chief Operating Officer, PMA:
- · Crisis management
- · Case Study: The evolving role of trade associations in managing food safety
- Mr. Richard Bennett, Portfolio Manager - Quality Assurance and Food Safety, HAL
- Mr. Michael Worthington, Chief Executive Officer PMA A-NZ
- Assoc. Prof. Robyn McConchie, Head, Department of Plant and Food Sciences, FAE, the University of Sydney

EVENT DETAILS

DATE & TIME

Thursday 8th November 2012

Registration: 9:30am

10:00am to 4:00pm Post forum drinks until 5:00pm

Law School Foyer, New Law Building, Eastern Avenue, the University of Sydney

24th October 2012 online: Click here to register

or visit: http://whatson.sydney.edu.au or to Ms Erika Watson: T 02 8627 1005

E erika.watson@sydney.edu.au (for catering purposes)

COST

Free





BUILDING A NEW PARADIGM

FORUM AGENDA THURSDAY 8TH NOVEMBER, 2012





Your chance to actively participate in a new and exciting fresh produce safety initiative!



9:30 AM

OPENING.

MR. RICHARD BENNETT

An overview of fresh produce safety in Australia.

REGISTRATION WITH LIGHT REFRESHMENTS.

10:25 AM

DR. ROBERT WHITAKER

Evolution of food safety in the US: Lessons learnt.

Food safety emerged as a major issue for the produce industry nearly twenty years ago and remains so today. We will explore the operational, economic and technical forces that have driven food safety efforts in the US, discuss why those issues and events were significant and how they have changed, and continue to impact the produce industry.

10:55 AM

MS. BONNIE FERNANDEZ-FENAROLI

Center for Produce Safety: an approach to filling industry food safety knowledge gaps.

CPS is a collaborative partnership that leverages the combined expertise of industry, government and the scientific and academic communities to provide research needed to fill the knowledge gaps on produce food safety. CPS has reached an exciting and critical point in its evolution.

Over the past five years it has gone from a concept to a partnership that has provided awards for sixty-nine original research, representing an investment of \$10.6 million targeted at the most critical questions affecting produce safety. In the coming year, CPS will play a greater role in identifying and addressing global research priorities, and shaping increased collaboration between government and stakeholders across the global produce supply chain.



The role of food safety research: scientific and business implications.

Since its inception in 2007, the Center for Produce Safety has funded a number of research programs directed at answering key food safety questions faced by the produce industry every day. This session will describe some of the key trends that have emerged from CPS funded research and the integration of this knowledge into food safety programs across the industry and how it is impacting individual businesses.





12:30 - 1:30 PM LUNCH.

1:30 PM MS. LORNA CHRISTIE

Crisis management.

When your company or industry is at the centre of a food safety outbreak, a crisis management strategy is a critical business imperative in today's virtual world. And while every crisis is unique, all have the ability to impact your organisation's brand, your relationship with customers and consumers, and your bottom line. This session will focus on the important steps you need to know to prevent one from happening, as well as the organisational building blocks of effective crisis management, including the role of the spokesperson, messaging, media management and ongoing analysis.

2:15 PM

Q & A - FRESH PRODUCE SAFETY

Mediators: Robyn McConchie and Michael Worhtington.

Panel: Richard Bennett, Robert Whitaker, Bonnie Fernandez-Fernaroli and Lorna Christie

It took one single event (the spinach crisis, 2006) in the USA for the fresh produce industry to realise that the approach of dealing with future incidents on an ad hoc basis was not sustainable. There was too much at risk, not only in terms of people's lives but also for the industry in terms of lost sales and consumer confidence. Since that one event, huge strides have been made to coordinate food safety research and how the industry collectively manages crises.

It would be generally accepted that our industry is very much following the 'ad hoc' approach at the moment. The purpose of this Q&A is to hear from delegates on what the food safety issues affecting your businesses or industries are and to see if there are any parallels we can learn from in the USA. This session is also to explore what delegates think are the necessary steps to move our industry from an 'ad hoc' status to one where there is a single industry and consumer message platform on food safety, consensus on the priority risks, clarity on how the industry would deal with a crisis and consensus on what science gaps need to be plugged through targeted and collaborative research with the CPS.

3:30 PM

ASSOC.PROF. ROBYN M°CONCHIE AND MR MICHAEL WORTHINGTON

The future of Australian fresh produce safety.

Australia has yet to experience a major food safety scare of the magnitude seen in Europe and the USA. Now is the time to move Australian fresh produce safety to a new paradigm, connecting this region with global initiatives, research projects and effective collaborative industry outreach, so that if a major event ever did occur the whole fresh produce industry is well prepared to handle the fall-out.

3:55 PM CLOSING.

4:00 PM

POST FORUM COCKTAIL RECEPTION.

6:00 PM

END OF EVENT.

FOR MORE INFORMATION CONTACT

T +61 2 8627 1005 E erika.watson@sydney.edu.au http://sydney.edu.au/agriculture

This project has been funded by HAL using voluntary contributions from the University of Sydney's Faculty of Agriculture and Environment and PMA Australia - New Zealand and matched funds from the Australian Covernment

ABN 15 211 513 464 CRICOS 00026A



FRESH PRODUCE SAFETY BUILDING A NEW PARADIGM



PROJECT OUTLINE

To scope out the feasibility for a dedicated body to identify research needs and provide appropriate solutions for the Australian fresh produce industry.





PROJECT OBJECTIVES

This project aims to increase the collaboration between stakeholders of the Australian fresh produce industry to provide a model for fresh produce safety. The project partners PMA Australia - New Zealand, the University of Sydney's Faculty of Agriculture and Environment and the Center for Produce Safety (CPS) from the US invite you to assist us to:

Identify a model and priorities for food safety research and extension in the Australian fresh produce industry.

Raise awareness of the challenges for produce safety and the importance of enhancing our produce safety practices in Australia.

Plan how the Australian fresh produce industry will handle major food safety outbreaks in the region, particularly in crisis management and consumer communication.

Translate industry relevant US-based research outcomes (from the CPS) for application in the Australian fresh produce industries.

Identify research needs that are specific to the Australian fresh produce industry.

BACKGROUND

Fresh produce safety applies to all aspects of the supply chain in the fruit and vegetable industries (fresh produce). Growers, packers, processors, wholesalers, fresh food retailers, and transporters all have a responsibility to supply consumers with food that is safe.

Australian food safety awareness and compliance has historically been driven by the requirements of key customer groups.

Food safety regulation at both a State and Federal level is currently only directly applicable post farm gate, and Food Standards Australia New Zealand (FSANZ) are currently reviewing the need for Primary Production Standards in Horticulture.

Freshcare and a number of other agencies currently deliver voluntary industry owned on-farm food safety and quality assurance program to producers and packers.

A MODEL THAT WORKS

CPS in the United States is a collaborative partnership between PMA, industry and University of California Davis, that leverages the combined expertise of industry, government and the scientific and academic communities to provide research needed to fill the knowledge gaps on produce food safety.

Initial funding for CPS was provided by the California Department of Food and Agriculture, the University of California, Produce Marketing Association (PMA) (\$2M) and Taylor Farms (\$2M). CPS is now recognised globally for its research and practical applications for the fresh produce industry in the USA.

PROJECT ACTIVITIES

A baseline study of the current status and players of fresh produce safety will be developed to allow identification of gaps in strategy, coordination and research.

Stakeholders from all sectors of the fresh produce supply chain will be invited to take part in industry forum on the 8th November, 2012 (click here for more information and to register). This will allow everyone to contribute to the development of a new paradigm for addressing produce safety research, outreach and response in Australia.

The outcomes of this project will be disseminated to a wide audience through website, oral deliveries and the channels of communication within industry organisations such as the PMAA-NZ and HAL.

Critical success will be measured by the adoption of recommendations arising from the scoping study which will flow from ownership of the forum outcomes.

WHO IS INVOLVED?

PMA A-NZ is well placed to provide a coordinating role as their membership represents stakeholders involved in all levels in the fresh produce value chain.

The University of Sydney has a strong background in research and the Faculty of Agriculture and Environment is positioned to provide in-house expertise to conduct and coordinate produce safety research and outreach to the Australian fresh produce industry.

The project leverages on and links in with the work that Richard Bennett at Horticulture Australia Ltd. has conducted over the years on food safety training and quality assurance systems.

Visiting fellows:

Dr. Robert Whitaker, Chief Science & Technology Officer, PMA and Chairman of the Technical Advisory Committee,

Ms Bonnie Fernandez-Fenaroli, Executive Director, CPS.

Ms Lorna Christie, PMA Chief Operating Officer, PMA.

will undertake the industry-focused forum to explore a workable model for the establishment and ongoing support for research and implementation of best practice in fresh produce safety in Australia and on the implementation of best practice in crisis management in produce safety.

WHY IS THIS PROJECT IMPORTANT?

Large supermarkets are actively seeking information and research to enable them to engage in safe practices and to prevent any food safety scares or issues. They are now fully supportive of investing in the research and implementation of fresh produce safety initiatives.

The Horticulture industry in Australia is the natural partner for this project since all major outbreaks overseas have been traced back to on-farm problems and hence the horticulture industry is most vulnerable.

Any outbreak (even if not originating on-farm) will impact the entire fresh produce sector.

CONTACTS

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This project has been funded by HAL using voluntary contributions from the University of Sydney's Faculty of Agriculture and Environment and PMA Australia - New Zealand and matched funds from the Australian Government.

ABN 15 211 513 464 CRICOS 00026A





FRESH PRODUCE SAFETY BUILDING A NEW PARADIGM







Featured Speakers:

MR. RICHARD BENNETT Product Integrity Manager, Horticulture Australia Limited.



Richard has worked in the nursery, seed and fruit processing industries, and as an industry development officer, trainer, agronomist and executive officer for a number of fruit grower organisations. His formal qualifications include orchard management, agricultural science, agribusiness, training and food safety. Richard is based in Shepparton, Victoria.



MS. LORNA CHRISTIE Executive Vice President & Chief Operating Officer, PMA

Lorna directs the activities of PMA staff responsible for enhancing member and industry value. This staff team is responsible for membership recruitment and retention, PMA events, product development, government relations, industry technology and standards, public relations, marketing communications, volunteer activities and business development.

Lorna is an accomplished spokesperson and marketing and public relations strategist, with proven crisis management and mitigation experience ranging from food safety issues to industry wide ethics. Her career experience includes senior management roles in corporate, public and government organizations. The majority of her career was spent in Washington, D.C., as vice president, consumer affairs for the Direct Marketing Association. She also served under the George H.W. Bush Administration in the Office of the Special Advisor to the President, United States Office of Consumer Affairs, where she held the position of associate director for industry and international affairs.



MS. BONNIE FERNANDEZ-FENAROLI

Executive Director, Center for Produce Safety

nie received her Bachelor of Science in Agriculture Business Management at California Poly State University, San Luis Obispo and her Masters of Business Administration from Sacramento State University. After fifteen years as Executive Director at the California Wheat Commission, she joined the Center for Produce Safety (CPS) in 2008 as its Executive Director working to leverage public and private expertise and research dollars to address critical risk management issues in the growth, harvest, processing and distribution of fresh produce.

As Executive Director she focuses the CPS's attention on critical food safety issues affecting the fresh produce industry and establishes collaborations among public agencies and private industry to maximize the impact of research budgets. In her past, agenizes and private industry of installined in injusto or research budgers. If the pa-bonnie has been chalirman of the U.S. Wheat Food Aid Working Group and chalirman of the U.S. Wheat Phytosanitary Committee. She has also been a member of USDA Agriculture Trade Advisory Committee, USDA's Grain Inspection Advisory Committee, AgriBusiness President's Council and the Agriculture Advisory Committee of the California Commission for Economic Development.



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ASSOC. PROF. ROBYN M°CONCHIE Associate Professor & Head of Department Plant and Food Science, Faculty of Agriculture and Environment, University of Sydney.

As Head of the Department of Plant and Food Sciences, Robyn is developing a new combined food science and agribusiness curriculum focusing on post farm gate value-added processes, supply chalin management and management of food related businesses for introduction in 2014. Her field of research is in post-harvest physiology of food crops including understanding natural defence mechanisms to protect fruit from disease, and understanding nutritional effects and ripening regimes to improve quality of products. Robyn has been leader of 15 international research and capacity building projects across SE Asia, the Pacific and Africa in areas of sustainable crop protection, post-harvest handling, quality assurance systems, supply chain management and linking farmers to markets.

From 2006-2010 Robyn was seconded to become the Director of the University's Research Institute for Asia and the Pacific, where she managed a team who designed and delivered over 50 international training and research programs each year for civil servants from Asia and the Pacific in areas of agriculture, public health, human rights, climate change, environmental sustainability and higher education management. Robyn has served as Past Precident and Secretary of Australian Society for Horticultural Science, and is currently Chair of the International Protea Working Group (ISHS).



DR. ROBERT WHITAKER Chief Science & Technology Officer, PMA

In this role, Bob has responsibility for food safety and security, environmental sustainability and technical innovations for the produce supply chain, from field to fork.Prior to Joining PMA, Bob carried a 16-year tenure with DNA Plant Technology Corporation (DNAP) where he served as Vice President for Vegetable Research and Development, and Vice President of Product Development, managing the development of various products.

In 1998, Bob joined NewStar as Vice President of Product Development and Quality where he developed corporate food safety programs throughout the U.S., Mexico and South America, spearheaded NewStar's aggressive product development activities, and had operational responsibility for NewStar's two value-added processing plants. In 2006, he was awarded the International Fresh-cut Processors' Association (IFPA) Technical Achievement Award for his work in food safety and product development. In 2007, he was named to the Executive Advisory Board for the Center for Produce Safety (CPS) and serves as Chairman for the CPS Research and Technology Council overseeing the solicitation, review and funding for research projects focused on produce food safety.



MR. MICHAEL WORHTINGTON Chief Executive Officer, PMA Australia-New Zealand

Michael was named executive manager of the PMA A-NZ affiliate in October of 2009. Worthington, a well-known local industry leader who served on the PMA Australia-New Zealand Council for three years, had been closely involved with PMA in getting the affiliate established. Michael has 30 years senior management experience in large scale agribusiness with operational experience in a broad range of enterprises particularly in production, processing, supply chain logistics, sales & marketing (Australia, Asian, UK and US markets).

As Executive Manager for PMA Australia-New Zealand, Michael's responsibilities include providing the full range of administrative functions for the new affiliate, including supplying executive services to the new board of directors and associated task forces, undertaking local member relations, sourcing and delivering relevant information for the local trans-Tasman industry, managing the annual Fresh Connections conference and handling local media relations. Michael also works closely with PMA's U.S. headquarters staff to help build and strengthen the two-way partnership.



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FRESH PRODUCE SAFETY

BUILDING A NEW PARADIGM



FORUM: KEY OUTCOMES ON 8TH NOVEMBER 2012







Around seventy five participants from the fresh produce industry came together at the University of Sydney to listen to outstanding presentations from US experts from PMA and the Center for Produce Safety. Guest speakers were Dr Bob Whitaker, Chief Science Officer PMA US, Ms Bonnie Fernandez-Fenaroli, CEO of the Center for Produce Safety at UC Davis, Ms Lorna Christie, Executive Vice President & Chief Operating Officer, PMA and Richard Bennett, Product Integrity Manager, HAL.



Presentations focused on the lessons learned from the evolution of produce safety in the US, the role of food safety research for fresh produce businesses and how the US manages produce safety crises. The presentations can be found at both the Faculty of Agriculture and Environment, University of Sydney website and the the PMA A-NZ website:

http://sydney.edu.au/agriculture

www.pma-anz.com/food-safety-initiative

The forum aimed at increasing the collaboration between stakeholders across the full breadth of the Australian fresh produce industry and identifying a model and priorities for food safety research and extension. In particular the forum was designed to raise awareness of the challenges for produce safety, the importance of enhancing our produce safety practices in Australia and to plan how the Australian fresh produce industry will handle major food safety outbreaks in the region, particularly in crisis management and consumer communication.

Judging from participant feedback, the forum was deemed to be highly successful, with nearly all highlighting how much they learned from our US guests.

Three major key messages and outcomes identified from the forum

1. The Fresh Produce Safety Forum attracted delegates from all parts of the fresh produce supply chain.

With representatives from leading retailers, farmers markets, processors, growers, researchers, government



and food safety auditors and consultants, it was clear that fresh produce safety was a priority, with all parties identifying and wanting to contribute to a coordinated approach to the food safety model.

Ms Bonnie Fernandez-Fenaroli, CEO of the Center for Produce Safety said that "it is vital to maintain momentum, as the event attracted... a collection of resources, expertise and talent... that have a lot of interest in collaborating on future fresh produce safety efforts."

This event laid the foundation for building consensus, raising awareness and to making decisions that all parts of the supply chain own and therefore support.

2. Commonality of research and extension with the US and other parts of the world.

It was clear that the experiences and lessons learnt from the US were highly relevant and useful to the Australian context and that it is important for Australia to utilize resources efficiently and not repeat work that has already been done.

Dr Whitaker said "The first thing that really stands out is the similarity between what we've seen in the United States, and Australia. The same questions, the same passion for food safety, the same determination to try to solve some of the issues are apparent in Australia." This presents an opportunity to collaborate with the US industry, adapt research that has already been conducted, and identify gaps in the knowledge that will help reduce risk for both Australia and the US.



Bonnie Fernandez-Fenaroli highlighted the opportunity to "...look at what work had been done so as not to replicate work and to use resources wisely." She said "... there is an opportunity to share the information that is generated at the Center for Produce Safety, and to build upon it". Having representatives from all parts of the supply chain involved in the new paradigm will mean that industry will drive the research.



Food Safety is integral to the business model of all stakeholders.

Lorna Christie's presentation on crisis mitigation and management highlighted that everyone in the supply chain has a responsibility to ensure that fresh produce is safe. If there is a food safety crisis, not only will the industry bear the consequences of lost sales and revenue, resulting in some cases in business closures, but that people may die or have long term health consequences.

Lorna's message was to take what has already been learnt from US and EU experiences and to mitigate a crisis by "putting a face" to food safety.

She urged all those involved in fresh produce to think about the consumer and ensure that they have done everything possible to make fresh produce safe for every consumer. This is the message that will drive food safety practices rather than regulation.

Next Steps in this Fresh Produce Safety Initiative

It is vital that the momentum be retained and that the industry remains actively involved in the process of managing research and extension in fresh produce safety.

A PMA A-NZ taskforce with representatives from all sectors of the value chain has been set up to map out a model of collaboration with the entire Australasian industry (commercial and regulatory) and involving all the learning outcomes and research from CPS and PMA. Research priorities were indentified using the surveys received from participants at the forum and questions raised in the Q&A session.

The graph highlights the priorities from across the fresh produce industry. It is categorised into 8 general areas, with improved extension and outreach being the greatest priority

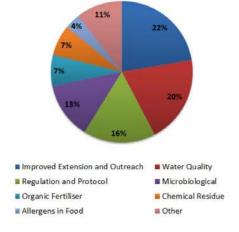
Research relevant to the Australian industry will be made available to the industry as the first step in this new paradigm.

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Fresh Produce Safety: Research Priorities











Media Release

17 January 2013

Produce Industry Leaders Launch Website for Fresh Produce Safety

Representatives from the University of Sydney's Faculty of Agriculture and Environment and PMA Australia-New Zealand, the Australiaian region's leading fresh produce trade association, today announced the launch of the Fresh Produce Safety - Australia & New Zealand (FPS) website. The FPS website, at www.freshproducesafety-anz.com, has been established as part of a major project to identify a model and priorities for fresh produce safety research and extension, and to raise awareness of the challenges for fresh produce safety and the importance of enhancing current safety practices.

The project, using voluntary funds from both organisations, with matched funding from the Australian Government through Horticulture Australia Limited (HAL), focuses on three critical objectives. First, to plan how the fresh produce industry will handle major food safety outbreaks in the region, particularly in crisis mitigation and management, and consumer communication; second to identify research needs that are specific to the Australian and New Zealand fresh produce industry and to develop local or international collaborative partnerships in research, outreach and education to address these needs; and third, to translate relevant research outcomes from the Center for Produce Safety at the University of California-Davis for application in the Australian fresh produce industries.

"The 2006 spinach crisis in the US and the European sprout problems of 2011 demonstrate the importance of our industry working together from paddock to plate to ensure continued fresh food safety in Australia and New Zealand," said Associate Professor Robyn McConchie, head of the Plant and Food Sciences department of the Faculty of Agriculture and Environment at the University of Sydney.

"We anticipate developing a research model where we will be utilising existing research and information, as well as bringing together international experts, representatives of government, industry associations, growers, packers and processers, wholesalers and retailers, food safety trainers and practitioners, all with a focus on filling the knowledge gaps on produce food safety in Australia and New Zealand, and protecting and enhancing food quality and safety in fresh produce," said Associate Professor McConchie.

A Food Safety Taskforce initiated by PMA Australia-New Zealand and comprising of representatives from all sectors of the supply chain, has also been appointed to assist in the project and work collaboratively with industry to facilitate communication and outreach.

"An outbreak of food-borne illness can be devastating, not only for those directly affected, but for an entire industry. As an industry, we have a responsibility to live up to the trust placed in us every day by consumers, by ensuring the safety and traceability of our fresh produce" said Fabian Carniel, Chair of the Food Safety Taskforce and Joint CBO of Mulgowie Farms.

Contacts

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Media Release

"On behalf of its members and the broader industry, PMA Australia-New Zealand is taking an active role in enhancing the safety and security of produce across the Australia-New Zealand region, and the taskforce is confident that this website will prove to be an extremely useful resource for the industry" he added.

For further information on the Fresh Produce Safety - Australia & New Zealand website, please visit www.freshproducesafety-anz.com.

About University of Sydney, Faculty of Agriculture & Environment

The Faculty of Agriculture and Environment explores new frontiers in food production, carbon cycling and agricultural sustainability. The critical issues facing the world today shape our research and teaching, towards a focus on the $sustainability\ of\ the\ system\ in\ the\ face\ of\ environmental\ challenges\ and\ a\ burgeoning\ global\ population.\ The\ University$ $of \, Sydney \, has \, a \, strong \, background \, in \, research \, and \, the \, Faculty \, of \, Agriculture \, and \, Environment \, is \, positioned \, to \, provide \, and \, and$ in-house produce safety research and outreach to the Australian fresh produce industry. The University of Sydney, Faculty of Agriculture and Environment is launching a new Bachelor of Food and Agribusiness degree, commencing in 2014. For more information, please visit www.sydney.edu.au/agriculture.

About PMA Australia-New Zealand

Founded in 2009, PMA Australia -New Zealand (PMA A-NZ) is the first regional affiliate of the Produce Marketing Association, the leading trade association representing companies from every segment of the global produce and floral supply chain. Its community includes seed companies, growers, packers, processors, shippers, importers and exporters, wholesalers and retailers, foodservice, government agencies, associated suppliers to the industry, and many more. By working across the whole value chain in Australia and New Zealand, PMA A-NZ strives to assist businesses to increase their sales of fresh and safe produce to regional and global consumers and to develop their internal business capabilities through motivated and skilled employees. For more information, please visit www.pma-anz.com.

Erin Hart, PMA Australia-New Zealand, tel. +61 3 8844 5536, email e.hart@pma-anz.com Erika Watson, U Syd. Faculty of Agriculture & Environment, tel. +61 2 8627 1005, email erika.watson@sydney.edu.au

appendix 3.2

1/29/13 Fresh Produce Safety Centre Australia & New Zealand FRESH **PRODUCE** Program Partners: SAFETY AUSTRALIA & NEW ZEALAND Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education. Home About What's New Research E-Learning Contact Us Events Resources Research Priorities Identified There were 3 key messages and several research priorities in fresh produce safety identified by the industry at a Fresh Produce Safety Forum held in early November 2012 at the University of Sydney. The forum brought together... Read more Home The Fresh Produce Safety - Australia & New Zealand website provides open access to SUBSCRIBE TO MAILING LIST actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. SEARCH THIS SITE We aim to raise awareness and to increase the collaboration between stakeholders of the Australian and New Zealand fresh produce industry, as well as establish global partnerships to better utilise the information available. Search Any outbreak of foodborne illness (even if not originating from on-farm) will impact the entire fresh produce sector, therefore fresh produce safety and traceability is of the utmost importance for all levels of the supply chain including growers, packers, processors, distributors, wholesalers and FPSCANZ FOOD SAFETY The FPS website covers all aspects of fresh produce safety by supplying valuable information and Australian listeriosis outbreak resources, providing research with practical application, and identifying the knowledge gaps in fresh worsens produce safety. Australian and New Zealand fresh produce exporters prepare for US FSMA Investigations follow Jindi Cheese listeria fatalities Zespri reviews arrangements in Industry scrutinizes FDA proposals freshproducesafety-anz.com 1/2

1/29/13

Fresh Produce Safety Centre Australia & New Zealand

Growers support global harmonized standards

About Us

The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. The project, initiated by voluntary funds from The University of Sydney Faculty of Agriculture and Environment, and PMA Australia - New Zealand, with matched funding from the Australian Government through Horticulture Australia Limited (HAL), aims to identify research needs and provide information and resources for all stakeholders in the fresh produce industry on food safety practices and research.

Popular Topics

Center for Produce Safety (CPS) Archives

Select Month

Crisis Management

FAQs Research

Wash Water

Useful Links

Center for Produce Safety, UC Davis

Horticulture Australia Limited (HAL)

PMA Australia-New Zealand Ltd

University of Sydney Faculty of Agriculture and Environment

Blog at WordPress.com.

Theme: Linen by The Theme Foundry

freshproducesafety-anz.com

2/2

Fresh Produce Safety Centre University of Sydney

Affiliated to the Center for Produce Safety (US) at the University of California, Davis

Proposal

To establish an independent, industry-managed affiliate of the Center for Produce Safety (US) at the Faculty of Agriculture and Environment, University of Sydney.

Background

Context

Fresh fruit and vegetables are perceived to be healthy and nutritious however, because many products are eaten raw the risk of illness to the consumer is high. Prevention of food borne illness relies on local evidence-based research to underpin the quality assurance systems that make our fresh produce safe. Australia, Europe and the US have workable food safety systems, but the inadequacy of these systems was brought into sharp focus with several recent outbreaks of serious illness associated with the fresh produce industry. In the US in 2011, Listeria on cantaloupes killed 23 people and caused illness in over 100. In the same year, a serious food safety issue arose in Europe, with fresh sprouts eventually being identified as the likely culprit. Fortunately, these examples of large scale food safety issues occur periodically, rather than on an ongoing basis.

In 2008 in the US, after a major spinach contamination, the fresh produce industry, University of California, Davis (UC Davis) and the Produce Marketing Association (US) established the Center for Produce Safety (CPS) to provide a focus for industry-based research and extension. CPS leverages the combined expertise of industry stakeholders, government and the scientific and academic communities to focus on the provision of research needed to continually enhance produce safety. In its first three years of existence, the CPS has awarded \$9.2 million in funding for 54 one- to two-year food safety research projects at 18 universities and other organisations. Importantly the CPS translates the research outcomes to provide the produce industry with practical, on the ground strategies that are implemented at every level of the supply chain.

Gap in Australian fresh produce safety research

In Australia we have no similar body focussing specifically on fresh produce safety research. Awareness of food safety is currently promoted by the regulatory body, Food Standards Australia New Zealand (FZANZ), various Quality Assurance programs such as SQF, Freshcare, and HACCP and Horticulture

Australia Limited (HAL)'s portfolio of Product Quality and Integrity. Despite these programs, there is a degree of complacency and food safety issues remain low on the list of priorities. Furthermore, there is very little research that specifically addresses food safety concerns that face horticultural and associated industries in an Australian context. Our proposal is designed to meet the need for a dedicated centre directed by industry and focused specifically on fresh produce safety research.

The fit with Faculty strategy

This initiative ties in well with the FAE's new undergraduate degree in Food and Agribusiness to commence in 2014. This degree was developed in response to student demand and the growing demand for highly skilled graduates from a program focused on the science <u>and</u> business of food production and supply. A new centre as outlined here would complement this initiative and promote our expertise in the food area.

Work towards a new Centre for Produce Safety

In 2012, the FAE was successful in a grant application to HAL to investigate formalising ties between the CPS in the US and the Australian fresh produce industry. The project, funded by HAL, PMA A-NZ and FAE, has been exploring ways in which the Australian produce industry can develop a partnership with the Center for Produce Safety (CPS) at UC Davis to drive research that will build on the substantial output from the CPS and provide appropriate research solutions that will benefit and service the Australian fresh food produce industry.

Already outcomes include:

- a) a scientific exchange between Australia and the US including industry workshops
- b) establishment of a Food Safety Website as a "go to" site for the Australian industry, and
- c) a partnership for 2103/14 requesting joint research proposals from Australian and US scientists to address two priority research areas identified by Australian industry.

Consultations with the Australian fresh produce industry and the CPS in the US over the last 7 months have concluded that we establish a 'sister' Food Safety Centre (name to be determined) at the University of Sydney as an affiliate of the CPS at UC Davis.

Stakeholder Benefits

Benefits to the University of Sydney

- Enhances the research profile of the FAE and the University
- The University of Sydney becomes a hub for produce safety research in Australia
- Affiliation with UC Davis, one of the top 5 agriculture universities in the US, in line with the FAE's strategic plan for international collaborations

- Supports and provides a focus for research in the food area for the new undergraduate degree in Food and Agribusiness
- Strengthens the University's industry links through recognition by the industry and research community, particularly for internships and other collaborative activity
- Opportunity to grow research students in area produce safety
- Longer term, the new Centre will be the catalyst for the formation of an FAE Food Safety Research Unit. This may consist of a research cluster in the area of food safety research similar to the Western Institute for Food Safety and Security (WIFSS) at UC Davis.

Benefits to Industry

- Provides local science-based research to underpin effective regulation and implementation of food safety programs
- Creates a framework for a coordinated approach among key stakeholders to identify research needs, conduct research and implement appropriate solutions
- Affiliation with the US CPS enables industry to build on existing research outcomes and have access to information, workshops and guests speakers from the US.

Benefits to CPS at UC Davis

- An opportunity for the US research and work to be extended internationally
- Provides formal architecture for the CPS US to work collaboratively with Australian scientists to leverage their research dollars and enhance research outcomes
- Furthers their goal of supporting industry-wide food safety programs with targeted research.

The New Centre: Affiliated to CPS (US)

The new Centre for Produce Safety in Australia would be an affiliate of the Center for Produce Safety in the US. As an affiliate, the FAE centre would model itself on the existing functions and structure of the CPS, which are described below:

Functions and Structure of the CPS US

The Center for Produce Safety (CPS) is a

Functions

- Funding research: CPS has compiled an impressive three-year body of work, awarding \$9.2 million and funding 54 one- to two-year research projects at 18 universities and organisations
- Identifying the priorities for targeted research by the CPS Technical Committee to provide the produce industry with practical data that can be used at all levels of the supply chain

- Outreach to and education of the research community.
- Translation of scientific research through reports, symposia, webinars and direct access to experts to support industry-wide food safety programs
- Partners in Research Program with matching funds from commodity groups, industry and Government sources.

Structure

- CPS was established by public and private partnership at the University of California, Davis. Initial
 funding for CPS was provided by the California Department of Food and Agriculture, the University
 of California, Produce Marketing Association and Taylor Farms.
- The CPS has a Board of Directors, Technical Committee, an Executive Committee and is managed by an Executive Director. There are four other support staff Grants Manager x 2, Communication and Events Manager and Global Database Manager.
- Administrative costs are covered by the Produce Marketing Association, enabling industry and public funds to go exclusively to research.

Managing Research and Research Outputs

- CPS puts out a call for approximately 20 RFPs targeting research priorities identified by industry.
- The Technical Committee reviews and assesses the proposals on a competitive basis calling in further expertise and consultation if required.
- Assessment is based on scientific rigour, likelihood of achieving results and cost.
- Not all projects are funded.
- Funding is approved by the Board on recommendation from the Technical Committee and the funding bodies.
- Research progress is monitored throughout the life of the grant.
- The research outcomes are documented in a final scientific report, an industry report and are presented at the annual CPS symposium.

Structure of the New Fresh Produce Safety Centre

The value of being affiliated with the CPS in the US is that we can utilise and build on the existing structure and framework of the US model. The functioning of the Australian centre would be collaborative but decisions and strategic direction taken independently of the CPS US.

Initially, the FPSC would consist of a Board of Directors and a Technical Committee. It would be managed by a part-time Executive Director with administrative assistance, as outlined in the diagram below.

Board of Directors

(Voluntary)

5-7 directors appointed by industry including researchers and fresh produce industry members

Function:

Provides strategic direction to the Centre
Oversees the Executive Director





Staff

(Salaried)
1 part-time Executive Director
1 part-time admin staff

Function:

Manages calls for research and development in food safety

Prepares material and manages outputs from Technical Committee

Technical Committee

(Voluntary)

5-7 members appointed by the Board including researchers and fresh produce industry members

Function:

Evaluates research proposals and grant applications

Indicative Funding and Expenses

Funding

In Australia-New Zealand, funding will be required for two purposes:

- c) Operational funds to establish and run the new Centre at the FAE, University of Sydney: industry will be approached to provide a 5-year pledge at two tiers (Gold and Platinum)
- d) Research funds for individual projects: sourced from industry and a key role of the Executive Director of the Centre will be to source and leverage these industry funds

Expenses

	2013-14	2014-15	2015-16	2016-17	2017-18
Operational Expenses					
Accommodation ¹	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Executive Director ²	\$60,000	\$90,000	\$120,000	\$125,000	\$130,000
Administrative Staff ²	\$35,000	\$45,000	\$52,000	\$54,000	\$56,000
General Operating	\$30,000	\$40,000	\$53,000	\$53,000	\$53,000
Research Grants					
Industry funds	\$100,000	\$150,000	\$200,000	\$250,000	\$250,000
Matching funds from Government granting agencies		\$150,000	\$200,000	\$250,000	\$250,000
Total	\$250,000	\$500,000	\$650,000	\$757,000	\$764,000

¹Space to be provided by FAE.

Immediate Next Steps

- Discussions with Dean FAE, DVC Research to gain initial University approval
- Senior representatives from the University including the Dean FAE and DVC(R) to meet with potential industry funders to demonstrate commitment to the proposal
- Detailed funding model and business plan prepared in conjunction with Sydnovate.

² Starting at 2 days per week and increasing up to four days over the five year period; includes on costs.



Wash Water Sanitation and Validation Workshop from CPS US 22 Jan 2013 Key Messages

A/Prof Robyn McConchie and Mr Michael Worthington

- We cannot completely decontaminate fresh produce with chlorine, ozone, irradiation, peroxyacetic acid or anything else. Listeria, Salmonella and E.coli can remain attached to rough or cut product surfaces.
- Washing should be viewed as potential to contaminate produce. One contaminated product
 in the wash water can transfer bacteria and viruses to the whole batch.
- We use wash water sanitizers to prevent cross contamination, they cannot reverse contamination.
- · Damaged products harbour pathogens, resulting in rapid microbial growth after washing.
- Water can infiltrate fruit and vegetables. Product pulp must be at least 6°C warmer than
 water temperature to prevent infiltration.
- Biofilms a problem not many sanitizers effectively penetrate them. 90-99% of the bacteria will come off in the first wash water, therefore it is the first wash where effective water sanitation is most important.
- $\bullet \quad \text{There is no ``best'' sanitiser-- It is the one that works for your product under your conditions.}$
- Validation of your system demonstrates that your sanitizer, in your system, under your conditions, can effectively prevent cross contamination by microorganisms.
- Verification of your system is the ongoing measurements and controls to assure that the system is being managed according to the validated plan, and therefore under control at all times.
- Understand your sanitiser chemistry several variables affect the performance of your sanitizer e.g. organic load, pH, temperature, ORP etc. To properly manage the system make sure you understand those variables.
- Who is verifying your system? Poor precision results from poor technique. Invest in training
 of staff.

for more information: freshproducesafety-anz.com

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This is part of the Fresh Produce Safety Project initiated by voluntary contributions from The University of Sydney Faculty of Agriculture and Environment, and PMA Australia - New Zealand, with matched funding from the Australian Government through Horticulture Australia Limited

appendix 4.3

4/30/13

Water Sanitation and Validation: Workshop Summary and Presentations. | Fresh Produce Safety Centre Australia & New Zealand



Program Partners:





 $Enhancing\ fresh\ produce\ safety\ across\ Australia\ and\ New\ Zealand\ through\ research,\ outreach\ and\ education.$

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Water Sanitation and Validation: Workshop Summary and Presentations.

by freshproducesafetycentreanz on 19/02/2013



In January 2013 Associate Professor Robyn McConchie (HoD Plant and Food Sciences, University of Sydney) and Mr Michael Worthington (CEO of PMA A-NZ) attended the Wash Water Sanitation and Validation Workshop held at the Center for Produce Safety CPS) in conjunction with the Institute for Food Safety and Health, Illinois Institute of Technology.

The workshop provided an update on the

latest research in wash water sanitation for all stakeholders, and drew attention on the participant's experience to identify needs for research and training. Over 130 industry stakeholders from all parts of the supply chain attended, which indicates just how important this food safety topic is to the fresh produce industry.

Guest speakers included Bob Brackett, IIFSH, Devon Zagory, Zagory and Associates, Karan Khurana, Pulse Instruments and Drew McDonald, Danaco Solutions.

Associate Professor Robyn McConchie (HoD Plant and Food Sciences, University of Sydney) has provided us with the **key take home messages from the presentations**.

Download Robyn's key messages here.

Devon Zagary's presentation addressed the quality of wash water, the role and choice of disinfectants, the variables to monitor, and definition of critical control point, validation and verification.

Download Devon's presentation here.

Karan Khurana described some of the wash water systems that are available, ways in which to monitor and verify the system and variables that impact the system.

Download Karan's presentation here.

Drew McDonald reminded the audience of the critical opportunities and challenges they have encountered with wash water systems, and the critical questions the industry needs to address.

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App reveals food detail

1/2



Bonnie Fernandez-Fenaroli, Executive Director Phone (530) 757-5777, bfernandez@cps.ucdavis.edu

Center for Produce Safety Announces Call for Research Proposals

\$3M in funds available to answer produce food safety questions

Davis, California, February 1, 2013 - The Center for Produce Safety at the University of California, Davis, today announced its 2013 request for food safety research proposals. The center and its public and industry research partners are making \$3 million available to fund general and commodity-specific research aimed at addressing the fresh produce industry's food safety research needs.

The Request for Proposals' (RFP) general research priorities were identified in industry risk assessments and prioritized by the CPS Technical Committee, an independent advisory board that includes experts from industry, academia, government and nongovernmental organizations. "This request for proposals builds upon the portfolio of research projects already funded by CPS as we seek to extend our understanding of food safety across the produce industry," said Dr. Bob Whitaker, chief science and technology officer, Produce Marketing Association, and chair of the CPS Technical Committee. "I am particularly encouraged by the diverse collection of partners that have chosen to participate in this year's request and look forward to working with them as we review proposals for funding."

The 2013 RFP seeks to fund both general produce food safety questions and commodity-specific questions. Core (produce-general) research priorities endeavor to better understand risk potential and to develop more effective food safety management tools in the following areas:

- Compost, Soil Amendment Fertilizer Use, and Cultivation Practices
- Buffer Zones from Domestic Animals to Fruit and Vegetable Production
- Co-management of Food Safety and the Environment
- Agricultural Water
- Climate, Environment, and Production Practices
- Harvest and Cooling Practices
- Pathogen Transfer from Water during Postharvest Handling and Processing.
- Pathogen Survival in the Postharvest Distribution Chain

CPS and its partners sponsor research projects designed to fill basic knowledge gaps in specific areas of food safety practices for fruit, vegetable, and tree nut production, as well as harvest and post-harvest handling. New partners include the National Mango Board, Australian produce industry, and the Western Center for Food Safety (an FDA Center of Excellence). William Watson, executive director, National Mango Board stated, "The Center for Produce Safety has been a great partner when it comes to mango food safety. We look forward to a long term relationship with CPS." To date, CPS has compiled an impressive four-year body of work, awarding nearly \$10.6 million and funding 69 one and two-year research projects at 22 universities.

To view the full RFP, visit the CPS website at www.cps.ucdavis.edu. Proposals are due by March 28, 2013 and should be submitted through the CPS Grant System website at http://ucanr.org/cpsgrants/. All qualified research professionals are eligible to apply for CPS funding.

2013 RFP Partners

California Department of Food and Agriculture - The California Department of Food and Agriculture (CDFA) serves the citizens of California by promoting and protecting a safe, healthy food supply, and enhancing local and global agricultural trade, through efficient management, innovation and sound science, with a commitment to environmental stewardship. www.cdfa.ca.gov

The Washington State Department of Agriculture serves the people of Washington by supporting the agricultural community and promoting consumer and environmental protection. Its staff carries out a broad spectrum of activities that support the producers, distributors, and consumers of Washington's food and agricultural products. http://agr.wa.gov

The **Australian produce industry** has initiated a partnership with the Center for Produce Safety (CPS) at UC Davis to drive research that will build on the substantial output from CPS and provide appropriate research solutions that will benefit and service the Australian fresh food produce industry. The partnership has been established through a project using voluntary funds from the Faculty of Agriculture and Environment at the University of Sydney and the PMA-ANZ, with matched funding from the Australian Government through Horticulture Australia Limited (HAL). Longer term, the project will develop a collaborative research model utilizing existing research and information, as well as encourage collaboration between international experts, representatives of government, industry associations, growers, packers, processers, wholesalers, retailers, food safety trainers and practitioners. The partnership will focus on filling the knowledge gaps in produce food safety in Australia and New Zealand to protect and enhance food quality and safety in fresh produce. www.freshproducesafety-anz.com

The California Cantaloupe Advisory Board was formed in 1988 by cantaloupe shippers, largely to control the quality of marketed cantaloupes. The board, composed of seven shippers and a public member, works to develop research-backed safety standards for growing and shipping cantaloupes, as well as mandating a trace-back system for the protection of the consumer. www.cmrb.org

The California Leafy Greens Research Program funds university and USDA research projects in the areas of genetics, pest management, water quality, and food safety. The program also provides opportunities for researchers to interact with leafy greens handlers and growers. This helps producers to stay on top of the latest research findings and helps researchers in identifying objectives that will contribute to the continued success of the leafy greens industry in California. www.calgreens.org

The California Melon Research Board was formed in 1972 by melon growers to provide research with respect to varietal development, production, harvesting and transportation from field to processing points on all varieties of melons, with the exception of watermelons, www.cmrb.org

The California Pistachio Research Program is a California State Marketing Order, authorized by a grower referendum in December 2007 and operating under the oversight of the California Department of Food and Agriculture. Mandatory assessments paid by pistachio producers are used to fund research on pistachio propagation, production, harvesting, handling and preparation for market as well as provide educational opportunities and materials for pistachio growers. www.calpistachioresearch.org

The **National Mango Board** marketing program targets consumers along with retailers, foodservice, nutritionists and other key audiences with information about selection, ripening, cutting, varieties and nutrition, along with great recipes. The research program helps the entire mango supply chain deliver a quality product to the U.S.

 $consumer; doing \ research \ to \ help \ educate \ growers, shippers, packers, importers, retailers \ and \ others. \ The \ NMB$ research program also investigates the phytonutrient properties of mangos and conducts studies about mango's potential health benefits. Finally, the industry relations program reaches out to the mango industry to share the NMB's results and resources and to learn more about what the industry needs. www.mango.org The Washington Tree Fruit Research Commission was established to promote and carry on research and administer specific industry service programs which benefit the planting, production, harvesting, handling, processing or shipment of tree fruit from the state. http://www.treefruitresearch.com The Western Center for Food Safety at UC Davis, a Food and Drug Administration Center of Excellence, conducts research at the interface between production agriculture and food safety, identifies real-world solutions to food safety challenges in these systems, and communicates new knowledge through outreach and education. http://wcfs.ucdavis.edu



Program Partners:





Press Release

04 February, 2013

Australian produce industry enters global research partnership: Call for research proposals.

The Australian fresh produce industry has today announced a partnership to drive food safety research that will benefit and service the Australian fresh fruit and vegetable value chain, marking the occasion with a call for research proposals.

The Fresh Produce Safety Australia & New Zealand (FPSANZ) project, a joint initiative by the University of Sydney Faculty of Agriculture and Environment (USyd FAE) and PMA Australia - New Zealand (PMA A-NZ), will join other public and industry research groups to partner with the Center for Produce Safety (CPS) at the University of California - Davis (UC Davis). The partnership will make USD \$3 million available to fund general and commodity-specific research aimed at addressing the fresh produce industry's food safety research needs.

As a first step in this partnership, FPSANZ and the CPS are requesting joint research proposals from Australian and US scientists from industry, government and academic communities to address two major research priorities, which were identified at an industry Fresh Produce Safety Forum in November 2012:

- · Compost, Soil Amendment Fertiliser Use, and Cultivation Practices; and
- Agricultural Water

The CPS will help identify collaborative partners for those interested in this program.

"The industry has seen much advancement in the food safety systems, standards and technologies of producers and processors aimed at reducing the risk of contaminated fresh produce. We welcome this partnership with CPS which provides a focus for ongoing research specific to the Australian context" said Michael Worthington, CEO of PMA A-NZ.

"In the longer term, the project will develop a collaborative research model utilising existing research and information, as well as bringing together international experts, representatives of government, industry associations, growers, packers and processors, wholesalers and retailers, food safety trainers and practitioners" said Associate Professor Robyn McConchie, Head of the Department of Plant and Food Science at USyd, "The focus is on filling the knowledge gaps on

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Erin Hart, PMA Australia-New Zealand, tel. +61 3 8844 5536, email e.hart@pma-anz.com Erika Watson, U Syd. Faculty of Agriculture & Environment, tel. +61 2 8627 1005, email erika.watson@sydney.edu.au



Program Partners:





Press Release

fresh produce food safety in Australia and New Zealand, and protecting and enhancing food quality and safety in fresh produce."

Dr. Bob Whitaker, Chief Science and Technology Officer of the Produce Marketing Association, and Chair of the CPS Technical Committee, is confident that it will be a valuable partnership.

"I am particularly encouraged by the diverse collection of partners that have chosen to participate in this year's request and look forward to working with them as we review proposals for funding" he said.

The Fresh Produce Safety Australia & New Zealand project has been established using voluntary funds from the USyd FAE and PMA-ANZ, with matched funding from the Australian Government through Horticulture Australia Limited (HAL). For more details, and to <u>download</u> the call for proposals, please visit freshproducesafety-anz.com.

About the Fresh Produce Safety Australia & New Zealand Project

The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. We aim to raise awareness and to increase the collaboration between stakeholders of the Australian and New Zealand fresh produce industry, as well as establish global partnerships to better utilise the information available. The FPS website covers all aspects of fresh produce safety by supplying valuable information and resources, providing research with practical application, and identifying the knowledge gaps in fresh produce safety.

For more information please visit: freshproducesafety-anz.com.

Contacts:

Erin Hart, PMA Australia-New Zealand, tel. +61 3 8844 5536, email e.hart@pma-anz.com Erika Watson, U Syd. Faculty of Agriculture & Environment, tel. +61 2 8627 1005, email erika.watson@sydney.edu.au

appendix 4.5b

4/30/13 Reminder: CPS Research Proposals Due 28th March 2013. | Fresh Produce Safety Centre Australia & New Zealand FRESH **PRODUCE** Program Partners: SAFETY AUSTRALIA & NEW ZEALAND Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education. E-Learning What's New Research Events Resources Contact Us Reminder: CPS Research Proposals Due 28th March 2013. SUBSCRIBE TO MAILING LIST by freshproducesafetycentreanz on 20/03/2013 SEARCH THIS SITE Fresh Produce Safety Australia & New CPS CENTER for PRODUCE SAFETY Zealand (FPSANZ) and The Center for Produce Safety (CPS) at the University of California, Davis are requesting joint Search research proposals from Australian and US scientists from industry, government and academic communities to address two major research priorities, which were identified at the industry Fresh Produce Safety Forum in November 2012: FPSCANZ FOOD SAFETY NEWSFEED · Compost, Soil Amendment Fertiliser Use, and Cultivation Practices; and · Agricultural Water. DNA testing may become part of all food quality control The CPS will help identify collaborative partners for those interested in this program. Testing is key to traceability in the packaging supply chain How to Apply: New almond factory plans to • Download the Request for Proposals. generate its own energy Submit your research proposal through the CPS Grant System website at PMA, Western Growers Release Food Safety Report http://ucanr.org/cpsgrants/by 28th March 2013. FDA proposed rule on traceability For more information on this research partnership between FPSANZ and CPS, Click here. unlikely this year, says Sherri The Fresh Produce Safety Australia & New Zealand project has been established using voluntary App reveals food detail funds from the <u>USyd FAE</u> and <u>PMA-ANZ</u>, with matched funding from the Australian Government through Horticulture Australia Limited (HAL). Share this: Edit this FROM: RESEARCH CENTER FOR PRODUCE SAFETY (CPS), FPS MANURES, ON-FARM FOOD SAFETY, PMA A-SEARCH, RFPS, UNIVERSITY OF SYDNEY. ← Ministry for Primary Industries, NZ, releases study on Residues on Fresh Produce Traceability set to improve with the GS1 DataBar → freshproducesafety-anz.com/2013/03/20/reminder-cps-research-proposals-due-28th-march-2013/ 1/2

FPSANZ Technical Committee 2013

The FPS Technical Committee includes:

- (Chair) Professor Les Copeland, Professor of Agriculture, Faculty of Agriculture and Environment University of Sydney (NSW)
- Dr Andreas Klieber, Agriculture Policy Manager, Coles-Wesfarmers (Vic)
- Dr David Miles, Senior Technical Officer, NSW Food Authority (NSW)
- Mr Scott Ledger, Senior Horticulturist (Postharvest), Hort VC Group (Qld)
- Mr Richard Bennett, Product Integrity Manager, Horticulture Australia Limited (HAL) (Vic)
- Mrs Allison Clark, General Manager Marketing, Houston's Farms (Tas)

Chairperson

Professor Les Copeland

Professor of Agriculture, Faculty of Agriculture and Environment, University of Sydney (NSW).

Les Copeland is Professor of Agriculture in the University of Sydney. He holds BSc (Hons) and PhD degrees in Biochemistry from the University of Sydney and joined the academic staff in 1974 after postdoctoral research in the USA, at Yale University and the State University of New York, Buffalo. His research and teaching are at the interface between agriculture and human nutrition and are mainly concerned with the chemistry and biochemistry of plants and food. His research is focused on the theme of how interactions between plant genotype, conditions for crop growth and postharvest practices affect quality and nutritional value of end products. This research has led to over 100 peer-reviewed publications and he has been the primary supervisor of 31 completed and 3 current PhD students. He was a Fulbright Fellow in the University of California Davis, USA (1979-80), and a Visiting Fellow in the Australian National University (1986 and 1992).

Les has extensive experience in senior academic leadership and management, and plays an active role in reviewing and assessing research. He is a former Head of Department and Faculty Dean and was the Foundation President of the Australian Council of Deans of Agriculture. He is a member of the Research Advisory Committee of the Australian Farm Institute, Foundation Editor of the open access journal Agriculture, President of the University of Sydney Association of Professors, and a Research Integrity Advisor of the University of Sydney. Previous roles include Company Directorships (Value Added Wheat CRC; Australian Cotton CRC; NuFlora); Steering Committee of the Primary Industries Standing Committee Food and Nutrition Science Review; academic advisor to the University of Sydney technology transfer office Sydnovate; and Chair of the Cotton Catchment Communities CRC Participants Forum. He was Project Leader of an AusAID CARD project in Vietnam for improving the yield and quality of sweet potatoes for processing, which resulted in improved cultivars and better practices and also had significant training and extension components. He is a Graduate of the Australian Institute of Company Directors and has had extensive experience in international projects and capacity building.

Dr Andreas Klieber

Agriculture Policy Manager, Coles - Wesfarmers (Vic).

Andreas Klieber is the Agriculture Policy Manager of Coles and has been managing sustainability initiatives with suppliers and farmers since 2011. Andreas completed his Bachelor of Science (Honours class 1) in Food Science and Technology at the University of New South Wales (UNSW) then went on to complete his PhD in Food Science (postharvest horticulture) covering broccoli and asparagus from UNSW (1990). Since completing his PhD, Andreas has also taken courses in Management (Queensland University of Technology 1994), Advanced Food Processing Hygiene course (Royal Britannia in London 2004) and a Lead Auditors course with Advancing Food Safety (Melbourne Australia 2009).

Andreas has extensive experience in the area of fresh produce, postharvest horticulture, food safety and quality. After completing his PhD, Andreas took a postdoctoral researcher role at Agriculture Canada (Vancouver, Canada 1990) where he was investigating the pre- and postharvest horticulture interactions for glasshouse cucumbers. In 1992 he became Lecturer/Researcher in Postharvest Horticulture, at the University of Queensland, Australia, focusing on avocadoes, tomatoes, broccoli and persimmons. Andreas became Senior Lecturer/Researcher in 1995 at the University of Adelaide where he held that position for 9 years. In this role, Andreas taught and conducted research in horticulture, postharvest horticulture and food technology covering topics such as quality, food safety and sensory evaluation. He successfully obtained and managed 21 competitive industry linked research grants to the value of AUD\$1.7 million which included global research interactions with China, Israel, and various Australian Universities and Government Departments. Before moving to London in 2004, Andreas published 29 internationally referred papers, 49 industry and conference reports and co-authored 2 books. He also contributed to the development of a Food Technology degree as a joint venture with Regency TAFE.

Andreas went on to become the Product Technologist – Produce at Marks Spencer in London, UK (2004). For 2 years he managed complex supply based sourcing of international high quality produce including stonefruit, apples, pears citrus and tropical fruit. He also managed the Marks & Spencer food safety protocol (Farm to Fork), Ethical Trading and Fairtrade initiatives. In 2006 Andreas became Technical Manager – Fresh Produce for Coles – Wesfarmers, managing the customer focussed quality and food safety of products, legal and ethical compliance of produces and Fresh Produce Food Technologists and Agronomists. Andreas is a professional member of the Australian Institute of Food Science and Technology, and sits on the FSANZ Technical and Management Committees for Primary Production Standards for Sprouts and Horticulture.

Dr David Miles

Senior Technical Officer, NSW Food Authority (NSW).

David Miles graduated from the University of Tasmania in 2001 with a PhD combining the use of predictive microbiological modeling, risk assessment and HACCP principles to examine the growth of *Listeria monocytogenes* in specialty cheeses. While completing his thesis, he began working in 1999 with the NSW Dairy Corporation, which later evolved into the NSW Food Authority. During his 14 years with the organisation, David has been employed in a number of roles, including food safety auditor, small goods expert, manager of the Shellfish program and the past 7 years as a Senior Technical Officer in the Authority's science & technical unit. This role sees David dealing with a variety of technical issues and policy development across most food commodities, including fresh horticulture. David is currently reviewing and updating the NSW Food Authority's risk assessment for the plant products food safety scheme, the scope of which covers unpasteurised juice, fresh cut fruit and vegetables, seed sprouts and vegetables in oil.

David is currently a member of the Food Standards Australia New Zealand (FSANZ) Horticulture working group, examining whether a Primary production and processing standard is required for the sector. He is also on the working group to review the microbiological limits in Standard 1.6.1 of the Food Standards Code for <i>Listeria monocytogenes</i> . David has co-authored several scientific publications, including the <i>Listeria monocytogenes</i> chapter in the 'Green book' <i>Foodborne microorganisms of public health significance</i> . In 2011 he co-authored a paper in the Journal of Food Protection reporting on the presence of cyanogenic glycosides in snack foods manufactured from cassava, and in 2012 he wrote an emerging issues paper on the "pine mouth" taste disturbance caused by certain species of pine nuts.

Mr Scott Ledger

Senior Horticulturist (Postharvest) Hort VC Group (Qld).

Scott Ledger has been the Senior Horticulturist for Hort VC Group since 2011. He is working to improve competitiveness and sustainability of horticulture value chains, implement quality management systems, and provide advice and training services to the horticultural industry in Australia. Scott's area of expertise is in postharvest horticulture handling and technology, quality assessment, analysis and improvement of horticulture supply chain systems, design and implementation of quality and food safety systems, training in quality management and extension methodology and practice. After completing his Bachelor of Agricultural Science at the University of Queensland, Scott went on to be the Extension Horticulturist at the Department of Primary Industries (DPI) Queensland (1974), where he holds 13 years extensive experience. In 1987, Scott became Senior Extension Horticulturist at the Horticulture Postharvest Group DPI, Brisbane Qld. While in this role, Scott managed projects in horticulture quality management training and achieved several industry awards including *Outstanding Service from the Australian Avocado Growers Federation* (1995) and the *HAL Graham Gregory Medal for Excellence in Horticulture Development* (1995).

In 1998 Scott was promoted to Principle Extension Horticulturist, and remained in this role for 13 years at the Queensland Horticulture Institute, DPI, the Horticulture and Forestry Science Department DPI&F and DEEDI, all in Brisbane Qld. Over this period, Scott managed many projects in this role, including Food Safety Guidelines and training (1998 – 2001), Freshcare on-farm food safety program (1999-2000), Better Mangoes: Improving handling practices in domestic supply chains (2000-2003), Reshaping Horticulture and Forestry Science Group (2002-2004) and Quality assurance systems for ASEAN fruit and Vegetables (2004-2007) and many others. During this time he was received several awards including the DPI Client Service Award for support for the development of competitive industries or viable businesses, Horticulture Quality Management Training project team (1999) and the DPI Client Service award for support for sustainable food and fibre industry development, Better Mangoes project team (2002).

Over Scott's long career in postharvest horticulture, management and training, he has published 45 conference papers, 12 training and procedure manuals, 120 newsletter and magazine articles and 34 fact sheets, brochures and posters. He is also a member of the Australian Society of Horticultural Science and the Australasia-Pacific Extension Network.

Mr Richard Bennett

Product Integrity Manager, Horticulture Australia Limited (HAL) (Vic)

Richard Bennett is the Product Integrity Manager for Horticulture Australia Limited (HAL). The activities of this role revolve around protecting consumer and supply chain confidence in the integrity of fresh and processed horticultural food products, and the products and services offered by the horticultural lifestyle sector. This involves working with HAL members – 43 peak industry bodies – on quality assurance, food safety, product standards and specifications, traceability, business continuity, compliance issues and crisis management. Richard has completed a Diploma of Applied Science (Agriculture) (1979) and Certificate in Horticultural Management (1986) at Dookie Agricultural College. During that time he had a full career working in numerous aspects of horticulture including in the nursery, seed and fruit processing industries, and as an industry development officer, trainer, agronomist and executive officer for a number of fruit grower associations. As a technical horticulturalist, he became increasingly concerned that many of those making demands of growers or involved in implementing food safety systems who did not generally understand agronomy, food safety risk, how to communicate with growers and the impacts of their expectations.

Richard has been involved in quality assurance and food safety since the mid-1990s and has obtained a Graduate Diploma in Agribusiness from Monash University (1995), an SQF 2000 Network Facilitation, Food Operations (1997) and is a Freshcare Ltd registered Food Safety and Quality Trainer (and registered Environmental Trainer). Richard has implemented Approved Supplier Programs (approx 400), SQF 2000 (approx 20) and Freshcare (approx 200) in fruit, vegetable, nut and wine grape businesses. He has represented the industry on numerous local, regional and national committees relating to quality and food safety, most notably the Food Standards Australia New Zealand Horticulture Advisory Group and the Department of Agriculture Fisheries and Forestry Food and Grocery Chain Resilience Group.

Richard is the central point of an informal network of industry and government professionals that has worked with various members and alone on numerous resources to improve food safety culture and performance. This includes numerous publications such as *Product Description Languages* for a wide variety of fruits, *Guidelines for On-Farm Food Safety for Fresh Produce, Horticulture Industry Crisis Management Guidelines,* The original and subsequent *Freshcare Food Safety and Quality Codes, Australian Horticultural Quality training resource and associated Certification Scheme, Minimising the risk of microbial contamination of fresh produce* and many more including journals and presentations to industry conferences and meetings.

Mrs Allison Clark

General Manager – Marketing, Houston's Farms (Tas).

Allison Clark is the General Manager of Marketing, (since 2010) at Houston's Farms, a fresh cut salad growing and processing operation in Tasmania and Queensland which supplies to over 1400 supermarkets nationally. Allison is responsible for the National Sales and Marketing Team and is a member of the Business Management Team and Coordinator of the Product Development Team. Previous to this role, Allison was the Quality and Innovation Manager at Houston's Farm (2004 – 2010) and was National Manager for food safety and quality and a member of the Business Management team. Currently, Allison is studying an MBA Professional (Agricultural Innovation) at the University of Tasmania. Her specific interest lies in sustainable food production and since Houston's Farms won the inaugural Woolworths Fresh Food Grant in 2008, Allison has successfully coordinated the development of the Houston's Farm Carbon Footprinting Tool, which has been made available for further development into the Vegiecarbon Tool by the Australian Vegetable Industry and HAL.

In addition to her role at Houston's Farm, Allison is currently a member of the TQA Australia Board (since 2004), member of the FSANZ Horticultural Primary Production Standard working group (since 2012), and the Tasmanian Institute of Agricultural Research (TIAR) Food Safety Centre Advisory Committee (since 2012). Since 2000, Allison has been a Horticultural Consultant, trading as Optimum Standard, providing guidance to the horticultural, waste management, and wholesale industry on quality, food safety, and environmental management systems. Allison was the previous Chair of the Technical Committee for the Australian Fresh Salad Producers Forum, has held Chair and Deputy Chair several times on the TQA Australia Board (2006 – 2012), and has previously been a member of the Tasmanian State Training Authority (TASTA) (1999 – 2002) and the Tasmanian Rural Industry Training Board (TRITB) (1998 – 2001).

Allison has contributed to the *Development of Good Agricultural Practices for the Australian Freshcut Salad Industry*, and has aided DAFF with the *National Food Safety Auditor Management Framework Feasibility Study*. In 2006, she worked on the *Identification of Food Safety Systems in Australian Primary Production Industries* with FSANZ. Finally, Allison was Project Leader on the AFFA Working Group on Food Safety and Quality Systems Equivalence Project, *Case Studies as demonstration models for achieving equivalence*. Allison has received numerous awards and scholarships for her ongoing contributions to agriculture, horticulture and food business.

appendix 5.1

4/30/13

FPS A&NZ to feature at Freshcare Workshop in Sydney. | Fresh Produce Safety Centre Australia & New Zealand



Program Partners:





Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education.

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FPS A&NZ to feature at Freshcare Workshop in Sydney.

by freshproducesafetycentreanz on 20/02/2013



FPS A&NZ will be delivering two food safety sessions to stakeholders working in the fresh produce safety and assurance sector at the <u>Freshcare</u> Biennial Stakeholder Workshop coming up in April!

A presentation titled "Food Safety Research in Action" will deliver information from the Center for Produce Safety, US, by A/Prof Robyn McConchie (University of Sydney). This will be followed by facilitated session to further determine food safety research priorities for the Australian fresh produce industry, titled "Filling the Knowledge Gaps: What are the Australian Food Safety Research Priorities?" facilitated by Ms Emma Walters, (Emma Walters and Associates).

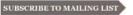
The Freshcare workshop provides the opportunity for a diverse group of stakeholders such as trainers, auditors, regional industry and government representatives and customer representatives to come together to exchange knowledge, professional development and networking, thus maintaining a strong and consistent knowledge base in all regions.

Other Freshcare workshop topics include:

- Freshcare Program Updates : Food Safety & Quality and Environmental
- $\bullet \textit{Food Safety Regulation: The US Experience-The Food Safety Modernisation Act-Progress or The Control of C$

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 Food Safety Regulation: The Australian Experience – Prof Focus 	rimary Production Standards	–A Change	
ullet QA Harmonisation – Dream or Reality			
If you are interested in attending, or for further informati <u>Freshcare</u> directly - admin@freshcare.com.au or 1300 86		p contact	
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← Water Sanitation and Validation: Workshop Summary ar FPS at PMA Fresh Connectio	nd Presentations. ons 11-13 June 2013, Sydney. See	e You There! →	
About Us	Popular Topics	Archives	Useful Links
The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. The project, initiated by voluntary funds from The University of Sydney Faculty of Agriculture and Environment, and PMA Australia - New Zealand, with matched funding from the Australian Government through Horticulture Australia Limited (HAL), aims to identify research needs and provide information and resources for all stakeholders in the fresh produce industry on food safety practices and research.	Center for Produce Safety (CPS) Crisis Management FAQs Research Wush Wuter	Select Month 🔻	Center for Produce Safety, UC Davis Horticulture Australia Limited (HAL) PMA Australia-New Zealand Ltd University of Sydney Faculty of Agriculture and Environment
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appendix 5.2



What's new in food safety for you?







Bob Whitaker¹, Bonnie Fernandez - Fenaroli² and

Robyn McConchie³

¹Chief Science & Technology Officer, PMA - USA
²Center for Produce Safety UC Davis
³Department Plant and Food Science, University of Sydney







CPS- 2012 Research Review

Presentation Outline

- > What is the Center for Produce Safety (CPS)?
- > What is the science telling about reducing risk in fresh produce safety?
 - Composting
 - Irrigation water
 - Animal Vectors
 - Wash water
- > What makes the CPS successful?
- > What is the future for fresh produce safety research for Australia?
 - Have your say



What is the Center for Produce Safety?

- > Private Public Partnership located at the University of California, Davis
- > Initial Partners: Produce Marketing Association, California Department of Food and Agriculture, Univ. of California, Davis
- All administrative costs Funded by the Produce Marketing Association. Initial donation \$2M. January 2012 \$11M.
- > Research Program began with a \$2M donation from Taylor Farms
- > Funded 69 projects (core, rapid response, proof of concept)
 - \$10,564,306, 40 researchers, 26 institutions, 3 countries





CPS Mission

- The Center for Produce Safety provides ready-to-use science-based solutions that prevent or minimize produce safety vulnerability.
- The Center for Produce Safety is recognized as a go-to organization coordinating efforts to enhance the safety of produce.
- Strategic Priorities
 - Become a global clearing house and repository of research information
 - Facilitate new actionable research
 - Provide communication, outreach to industry, research and regulatory sectors
 - Fund the strategic plan



Current Environment

- · Consumers expect food to be safe
- Regulators will <u>always</u> protect public health
- Farmers want to do "right" thing:
 - ✓ Produce industry great industry
 - ✓ Healthy, nutritious food
 - √ Producers are responsible for safety
- Educators can provide assistance
- Buyers focus on food safety
- Yet... product recalls and outbreaks







5



CPS- 2012 Research Review

Still some failure to recognise responsibility....

- Extremes on how producers and buyers view food safety
 - √"Been farming for 3 generations, never had a problem"
 - ✓ "We are a little guy, that stuff is for those corporate guys"
 - √"Too expensive; who is going to pay for it?"
 - √"Just doing what my customers ask me to do"
 - √"I am going to wait for regulation"
 - √"Consumers need to be more careful"
 - √"Ran a little short and just needed a few loads"
 - ✓ "I have a national program and then a separate deal for local"



Food safety is about responsibility

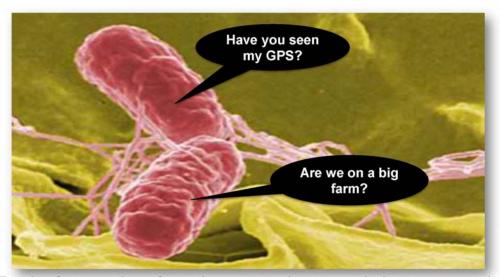
- · No one size fits all solution
- · All stakeholders must be proactive
- Personal
- · Can't "keep your head low"
- Producers need to protect their business
- Producers know their operation best
- · Following can be dangerous...

Take responsibility for where you are going...Denial doesn't work



THE UNIVERSITY OF SYDNEY

CPS- 2012 Research Review



Food safety not about farm size, geography, crop, whole or processed



Science is answering questions and identifying risk

Three basic questions:

- > Where do pathogens come from?
- > How do they get on the crop?
- > How can we kill them?

Key research areas:

- Compost
- > Irrigation water
- > Animal vectors
- Wash water sanitation



9



CPS- 2012 Research Review

Composting - problem of survival and regrowth

Complex process that requires controls.

- Technical requirements: pH, C:N ratios 25:1; optimal temperature, rapid heat up times
- Reinfection can occur if not stored properly – risk factors: environment, rainfall, humidity, proximity to pathogens
- Guidelines for storage? Separation from raw materials, covers, short storage times
- Compost particle size matters for E.coli O157:H7 survival – large particle size promotes survival
- Compost moisture level matters for E.coli O157:H7 survival - Moderate (30%) promotes survival of cf. low (20%) or high (40%)







Composting - problem of survival and regrowth



In the US the FDA will require composters to fully define their process and preventative processes to prevent reinfection

- Grower ultimately responsible for evaluating compost suppliers and assess/manage risks
 - ✓ Do they know their suppliers?
 - Do they have a validated composting process?
 - ✓ Do they store compost properly?
 - ✓ If producers do own composting, do they have a controlled process?
 - √ Time from application to harvest?
 - Environment for application e.g. wind, proximity to harvestable crops
- Environment plays a role for recontamination

11



CPS- 2012 Research Review

Irrigation Water



- Testing has limited use in predicting outbreak
 - despite food safety programs relying on them
 - risk based approach to water sampling i.e.
 low variability fewer tests; high variability
 more frequent sampling;
 - review pattern of results for seasonality, source and other factors.
- > E.coli counts an indicator of potential risk?
 - NOT a predictor of Salmonella presence
 - highest Salmonella readings in Summer, correlated with temperature, rainfall and recreational water use.
 - choice of test matched by potential contamination factors such as animal vectors.



Irrigation Water



Source of water

- on-farm dams had much higher concentrations of *E.coli* than well water sources in California (30% higher)
- questions pumping well/bore water to on-farm reservoirs where water quality can degrade

> Sampling

- increasing sample volume = increased probability of detection e.g. 1L
- where? Side water channels different results to main water channel
- risk based approach to water sampling i.e. low variability – fewer tests; high variability – more frequent sampling
- review pattern of results for seasonality, source and other factors

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CPS- 2012 Research Review

Irrigation Water

> Uptake of pathogens by plants

- Salmonella didn't enter cucurbit fruit via root systems when drip irrigated with Salmonella infected water
- Second trial which indicates plants may not take up human pathogens via roots
- Injured tissue however poses a risk.

> Change in sampling methodology

- Regular testing may be replaced with more frequent and targeted sampling i.e. risk based sampling because of season, volume of sample and location of sampling.
- Suggest gather results over last 5 years and identify problem sources, and when in the season they are a problem.
- Net effect same number of samples (and therefore cost) and focused on risk.
- Need cooperation between growers.





Wash Water Sanitation

- > The use of a disinfectant does not "sterilize" the product
 - they prevent cross contamination
 - most systems get microbial reduction of 1-2 log despite initial load
 - sanitizers do not penetrate biofilms well e.g. chlorine
- > Ideally have a collection of pathogen surrogates
 - for validation studies
 - a framework for designing validation studies and a mechanism for collecting and sharing industry data as a learning tool
- > Comparing different disinfectants
 - require protocols

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CPS- 2012 Research Review

Wash Water Sanitation

- > Know how disinfectants work and how to measure their presence
 - Complex management of pH, disinfectant levels, turbidity and OM
- > Presence of Organic Matter + Microbial Load
 - adversely affects wash water quality resulting in potential for cross contamination
 - organic load binds the active chlorine rendering it useless as a disinfectant
 - E.coli detected at 2% organic load and upwards
- Narrow pH range
 - 6.5 ensures sodium hypochlorite disassociates to release hypochlorous acid (disinfectant)
 - pH 8.0 hypochlorous acid decreases to 20% of available chlorine



Wash Water Sanitation

- Reliance on Oxidative Reduction Potential (ORP)
 - only one indicator for effectiveness of sanitizer – may not be reliable under conditions of high turbidity or OM

> Internalisation of pathogens

- Water can infiltrate fruit and vegetables through scars and wounds
- Product pulp must be < 6° C warmer than water temperature to prevent infiltration
- Establish Critical Control Points and Operational Limits
 - E.g. CCP might be 10 ppm then OCP should be 12 ppm
 - Verification ongoing measurements and controls to assure that the system is being managed according to the validated plan, and therefore under control at all times
 - Training of staff essential



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CPS- 2012 Research Review

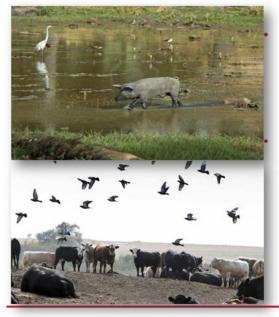
Animals as pathogen vectors?

- Numerous species are potential vectors
- Amphibians/reptiles shed Salmonella), but...
 - Clinical versus environmental serovars
 - ✓ E. coli O157:H7 rare
 - ✓ Open water sources > well-fed
- Birds can carry pathogens:
 - Reason to do experiments -Canadian geese!
 - Look at densities to evaluate
- Dogs can carry multiple pathogens
- · Game animals may vector pathogens









Wild animal risks need to be managed

- ✓ Pre-harvest inspection
- Buffer zones
- Physical barriers, e.g. water sources

Animal risk consideration in context of environment:

- ✓ Most "risky" list don't work
- Identify source/exposure prevent infection of animals
- Densities of animals feedlots a real concern
- Proximity to field

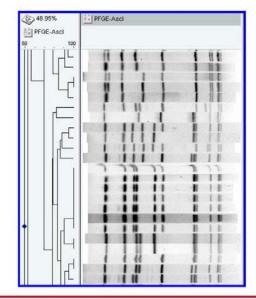
19



CPS- 2012 Research Review

New Tools

- Riboprinter® system rapid detection of pathogen type and serovar Dupont Qualicon
- T-128 GRAS chemical chlorine stabilizer under high organic load
- Zero Valent iron water filtration system - add to sand filtration systems to filter our Salmonella and E.coli O157:H7 (works for smaller volumes)





What's next for Australia?

A New Collaborative Paradigm for Fresh Produce Safety - 2012/13

- > funded by HAL, the University of Sydney and PMA A-NZ
- > explored fresh produce safety research centre affiliated with the CPS at the UC Davis

Outcomes of the project:

- a Fresh Produce Safety Workshop in October 2012 with 3 keynote speakers from CPS USA
- a Fresh Produce Safety Website established as the go-to site for industry information
- a Fresh Produce Safety Newsletter for the fresh produce industry
- a partnership in 2013 with CPS to fund 2 research projects relevant to the Australian industry
- > raised awareness of the issues in fresh produce safety in Australia

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Partners In Research

Why the CPS approach successful:

-) Makes food safety research accessible
- > Each party brings much experience to the problem and the relationship
- > Partnering with industry keeps the leadership role within industry
- Matching funds



What can we do?

Proposal for new Australian Fresh Produce Safety Centre affiliated with CPS in the US

Have your say.... Survey being sent to your email

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CPS Research Symposium



CPS 4th Annual Produce Research Symposium Wegmans Conference Center June 26, 2013

CPS



Acknowledgements

> Composting

- Dr Xuiping Jiang, Clemson University

> Irrigation Water

- Anita Wright, University of Florida
- Trevor Suslow UC Davis

Wash Water

- Kieth Warriner University of Guelph
- Edward Atwell UC Davis

Animal as Vectors

- Andrew Gordus CA Dept of Fish and Game
- Michele Jay- Russell UC Davis



Freshcare Workshop: 11 - 12 April 2013

Sydney Masonic Centre

"Filling the Knowledge Gaps: What are the Australian Food Safety Research Priorities?"

Session Report

A 90 minute session was held at the Freshcare Workshop on 11 April 2013 on "Filling the Knowledge Gaps: What are the Australian Food Safety Research Priorities?" The objective of the session to answer the question: "What unique fresh produce food safety challenges are there in Australia that we need answered by research to reduce risk?"

The participants at the workshop, individuals all actively involved in various aspects of food safety management in the fresh produce sector, were divided into 8 thematic groups with 6-7 participants per group. The groups were established based on responses to a survey send to prior to the workshop asking participants to rank food safety research priorities. The groups were:

- Water Field Operations and Irrigation
- Water Wash Water
- Microbial Research
- Pathogens in the Post-harvest Distribution Chain
- Compost and Organic Fertiliser Usage
- Harvest and Cooling Practices
- Chemical Residue Research
- Regulation and Protocols

In these groups, participants were asked to discuss the broad area they had been allocated in light of the session objective. They were then asked to determine specific research questions the group thought needed to be addressed in that area.

The groups and the research questions or areas of research were:

Water - Field Operations and Irrigation

- What are the critical limits for food safety pathogens in water applied to crops during production, including Australian regional/seasonal variations?
- What is the frequency of water testing required to assess the risk of the water source exceeding the critical limit (for different types of water sources)?

Water - Wash Water

- What is the best way of getting existing information and research on wash water to those who need it?
- What is the interaction of fungicides and sanitisers, and the potential impact on the efficacy of sanitising, post-harvest disease and food safety?
- What is the environmental impact of the disposal of treated wash water?

Microbial Research

- Is E.coli a suitable indicator for Salmonella/Listeria in Australia?
- Scoping study of bacterial loads on Australian fruit and vegetables to identify high/low risk crops/systems.

Pathogens in the Post-harvest Distribution Chain

- Is nil detection of Listeria in herbs and leafy greens practical?
- Does in-store handling of produce by staff and customers cause microbial contamination that was not present initially?
- What are effective methods of elimination of contamination by birds in packing sheds?
- What risks are posed by use of second hand/re-used packaging (cardboard and plastic crates)?
- What food safety risks are there from different cooling sections of supermarkets and different temperatures in these sections?

Compost and Organic Fertiliser Usage

- What are the risks to food safety in using compost teas?
- How do you define a compost tea and its safety, including identification of microbial contaminants and allergens?
- What are the risks and composition of these products?
- What management strategies can we employ to mitigate these risks eg testing, withholding periods, water quality/dilution?
- What is happening in other industries about compost and organic fetiliser use (eg current research and literature reviews)?
- How quickly do raw untreated products break down in soils to prevent contamination of products (we are currently using UK data for this and need data for Australia)?
- What are the different States' rules on biosolids?

Harvest and Cooling Practices

- What are the risks from biofilms during harvest from poorly cleaned equipment that comes into contact with produce?
- What is the potential of the coolroom environment, including during transportation, to be a source of pathogens and to act as a vector in the cross-contamination of fresh produce?

Chemical Residue Research

• Research into expanding chemical options for 'minor' crops.

- Is there an objective, scientific way of determining Minimum Residue Levels (MRLs), and why are there variations in MRLs in different countries?
- Research into the update of persistent chemicals by commodity; other factors that may influence uptake such as soils, environment etc.

Regulation and Protocols

- Do regulations improve food safety?
- Case studies of international regulations.
- What are the drivers for implementation for food safety regulations?
- Mapping exercise on importing country requirements.
- Research on how effective regulations are on improving knowledge and trust in food safety by the consumer in Australia.

appendix 5.4

4/30/13 "Whats new in food safety for you?" presentation now available. | Fresh Produce Safety Centre Australia & New Zealand FRESH **PRODUCE** Program Partners: SAFETY SYDNEY AUSTRALIA & NEW ZEALAND Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education. What's New "Whats new in food safety for you?" presentation now available. SUBSCRIBE TO MAILING LIST by freshproducesafetycentreanz on 23/04/2013 SEARCH THIS SITE At the recent Freshcare Workshop 11-12 April 2013, Associate Professor Robyn McConchie (USyd) delivered a presentation on "Whats new in Food Safety for you?" The presentation was based on information provided by Dr Bob Whitaker (PMA) and Ms FPSCANZ FOOD SAFETY Bonnie Fernandez-Fenaroli (CPS) and summarises some of the food safety research made available at the Center for Produce DNA testing may become part of all Safety 2012 Research Symposium. Testing is key to traceability in the The presentation was informative and packaging supply chain concise, highlighting what the research is New almond factory plans to telling us about reducing risk in fresh produce safety. The areas of focus were: generate its own energy PMA, Western Growers Release Food Composting · Irrigation water FDA proposed rule on traceability · Animal Vectors unlikely this year, says Sherri McGarry · Wash water App reveals food detail The presentation was followed by a facilitated discussion on filling the knowledge gaps and prioritising areas for food safety research specific to an Australian context. The session was facilitated by Emma Walters, (Emma Walters & Associates). Download a copy of the presentation: "Center for Produce Safety, 2012 Research Review; Whats New In Food Safety For You?" Download a copy of the research priorities in fresh produce safety for Australia. "Filling the Knowledge Gaps; What are the Australian Food Safety Research Priorities?" Share this: Edit this freshproducesafety-anz.com/2013/04/23/whats-new-in-food-safety-for-you-presentation-now-available/ 1/2









Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education.

ome About What's New Events Research E-Learning Resources Press Contact Us

FRESHCARE WORKSHOP: Summary from the Freshcare team.

by freshproducesafetycentreanz on 24/04/2013



The recent <u>Fresheare Workshop</u>, held in Sydney, brought together experts from grower organizations, research institutions, retailers, wholesalers, auditors and trainers for two days of presentations, workshop sessions and networking opportunities.

Presentations from Horticulture Australia (HAL), University of Sydney and Food Standards Australia New Zealand (FSANZ) provided the latest information about the new US food safety regulations, food safety research priorities and the direction of food standards here in Australia.

"The biennial Freshcare Workshop brings together our stakeholders and experts from many fields to provide a forum for both professional development and for the exchange of ideas and information; helping us improve the certification programs we provide to industry." said Clare Hamilton Bate, National Program Manager, Freshcare.

Over the two days, the delegates also received highly valuable and detailed updates on all aspects of the Freshcare Codes of Practice, including:

- · Freshcare Food Safety and Quality
- Freshcare Environmental
- Freshcare Environmental Viticulture
- Freshcare Environmental Winery

"We covered a huge amount in the two-day workshop and feedback from delegates has been very positive." Clare said.

Freshcare are making many exciting program developments, including discussion on the

freshproducesafety-anz.com/2013/04/24/what-happened-at-the-freshcare-workshop-find-out-from-the-team/

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FPSCANZ FOOD SAFETY NEWSFEED

DNA testing may become part of all food quality control

Testing is key to traceability in the packaging supply chain

New almond factory plans to generate its own energy

PMA, Western Growers Release Food Safety Report

FDA proposed rule on traceability unlikely this year, says Sherri McGarry

App reveals food detail

	nent of online training resour		
Clare added, "Now the hard work begins, converting all t benefit our most important stakeholder group – the grow			
beriejt, our most important stakenotaer group – the grow Freshcare is the key to compliance in both food safety an	17		
Presentations and session overviews will be made availab	e shortly.		
For more information on any aspect of the <u>Freshcare Pros</u>	ram contact:		
Freshcare Ltd			
Web: freshcare.com.au			
Email: info@freshcare.com.au			
Tel: 1300 853 508			
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TAGS: FOOD SAFETY, FPS NEWS, FRESHCARE, ON- FARM FOOD SAFETY, STAKEHOLDER	FROM: EVENTS	, PAST EVENTS	
← "W hats new in food safety for you?" presentation now avai	leble		
About Us	Popular Topics	Archives	Useful Links
	Popular Topics Center for Produce Safety	Archives Select Month	Center for Produce Safety,
The Fresh Produce Safety — Australia & New Zealand website provides open access to actionable	Center for Produce Safety (CPS)		Center for Produce Safety, UC Davis
The Fresh Produce Safety — Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and	Center for Produce Safety (CPS) Crisis Management		Center for Produce Safety , UC Davis Horticulture Australia
The Fresh Produce Safety — Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and	Center for Produce Safety (CPS) Crisis Management FAQs		Center for Produce Safety, UC Davis Horticulture Australia Limited (HAL)
The Fresh Produce Safety — Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. The project, initiated by voluntary funds from The University of Sydney Faculty	Center for Produce Safety (CPS) Crisis Management FAQs Research		Center for Produce Safety , UC Davis Horticulture Australia
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Your Fresh Produce Safety Update

Information and resources on food safety practices and research for all stakeholders in the fresh produce industry.



Program Partners:





Welcome to the first edition of the Fresh Produce Safety Australia & New Zealand newsletter! Here's what's happening in the Fresh Produce Safety community this month...

Australian produce industry enters global research partnership: Call for research proposals



Fresh Produce Safety A&NZ, a joint initiative by University of Sydney and PMA A-NZ have joined other public and industry research groups to partner with the Center for Produce Safety (CPS) at the University of California - Davis (UC Davis). The partnership will make USD \$3 million available to fund general and commodity-specific research aimed at addressing the fresh produce industry's food safety research needs.

The Australian fresh produce industry is encouraged to

submit research proposals that will address two major research priorities which were identified at the Australian Fresh Produce Safety Forum – Building A New Paradigm in November 2012.

Proposals are due by March 28, 2013.

To read more...

Download the Request of Proposals.

Water Sanitation and Validation: Workshop Summary and Presentations Now Available

In January 2013 Associate Professor Robyn McConchie (HoD Plant and Food Sciences, University of Sydney) and Mr Michael Worthington (CEO of PMA A-NZ) represented Fresh Produce Safety A&NZ at a Wash Water Sanitation and Validation Workshop in the USA.

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Your Fresh Produce Safety Update

Held at the Center for Produce Safety (CPS) in conjunction with the Institute for Food Safety and Health, Illinois Institute of Technology, the workshop attracted over 130 industry stakeholders from all parts of the supply chain. The workshop provided an update on the latest research in wash water sanitation, and drew attention on the participant's experience to identify needs for research and training.

Guest speakers included Bob Brackett, IIFSH, Devon Zagory, Zagory and Associates, Karan Khurana, Pulse Instruments and Drew McDonald, Danaco Solutions.

The key messages can be found here...

Download the presentations...

Join us at PMA Fresh Connections to promote fresh produce safety!

We are taking the opportunity to promote fresh produce safety, reaching in excess of 1000 people with a booth at the <u>PMA Fresh Connections Trade Show</u> on 12 and 13 June 2013 in Sydney.

We invite other Food Safety groups and organisations to join us on our booth to create a one-stop-shop for delegates wanting to learn more about food safety in fresh produce!

Email us to be involved!



We will be featuring at the Freshcare Workshop April 2013, Sydney

FPS A&NZ will be delivering two food safety sessions to stakeholders working in the fresh produce safety and assurance sector at the <u>Freshcare</u> Biennial Stakeholder

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Your Fresh Produce Safety Update

Workshop coming up in April!

To read more about the workshop and the presentations, <u>click here</u>.

If you are interested in attending, or for further information on the Freshcare Workshop contact Freshcare directly -admin@freshcare.com.au or 1300 853 508.

New resources now available on the FPS A&NZ website



On the <u>freshproducesafety-anz.com</u> website you will find that the Resources Tab, Research Tab and E-Learning Tab will all provide information about organisations, summaries of current research and links to free webinars and tutorials.

Among other things, resources recently added to the website include:

- Horticulture Industry Crisis Management Guidelines
 (2010)
- Guidelines for On-Farm Food Safety for Fresh Produce, 2nd Ed. (2004)
- Crisis Management Risk Assessment Presentation by Richard Bennett, HAL.
- Minimising Microbes on Fresh Produce (2006)

If you have something you would like to add to improve the information available in fresh produce safety, please feel free to contact us.

Upcoming Events

Join Fresh Produce Safety - Australia & New Zealand at these events over the coming months





Freshcare Workshop, 11-12 April 2013 at

PMA Fresh Connections Conference &

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Your Fresh Produce Safety Update

the Sydney Masonic Centre.

Please contact Freshcare for more information - admin@freshcare.com.au or 1300 853 508.

Trade Show, 11-13 June 2013 at the Sydney Convention & Exhibition Centre www.pmafreshconnections.com.au

"What's New" on the website

- The US Food Safety Modernisation Act: State of Play for Australia and New Zealand
- Remaining Committed to safe and healthy food for consumers
- FSMA: 10 Things You Need To Know About The Preventive Controls Rule

The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. Go to $\frac{\text{``What's New''}}{\text{on the Fresh Produce Safety A\&NZ website for all our most recent news and updates}}.$

Visit the website

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Your Fresh Produce Safety Update

Information and resources on food safety practices and research for all stakeholders in the fresh produce industry.



Program Partner





Welcome to the second edition of the Fresh Produce Safety Australia & New Zealand newsletter! Here's what's happening in the Fresh Produce Safety community this month...

ACT NOW! CPS Research Proposals are due 28th March 2013.



Fresh Produce Safety Australia & New Zealand (FPSANZ) and The Center for Produce Safety (CPS) in the US are requesting joint research proposals from Australian and US scientists from industry, government and academic communities to address two major research priorities of Compost, Soil Amendment Fertiliser Use, and Cultivation Practices; and Agricultural Water.

Research proposals are to be submitted through the CPS Grant System website by **28th March 2013** at http://ucanr.org/cpsgrants.

For more information <u>click here</u> or <u>Download the Request for Proposals.</u>

To find out more about the FPSANZ and CPS research partnership, click here.

Shoppers in the Asia-Pacific have a taste for safe food.

The Nielsen Global Survey of Fresh Foods released its report this month, revealing that food safety is one of the major influences for shoppers in the Asia-Pacific region.

Fresh food contributes to more than 50% of food,

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Your Fresh Produce Safety Update

grocery and personal care spending in most Asian countries.

"While modern trade fresh food shoppers are motivated by freshness and convenience, their view of these attributes are different than a traditional shopper," said Peter Gale, managing director of Retailer Services, Nielsen Asia-Pacific and Middle East. "Freshness relates to cleanliness and food safety and the belief that they can trust the quality of the product. Convenience is about one-stop shopping rather than location."

It is clear that food safety is at the front of the consumers mind when purchasing fresh produce, it is important to "Ensure high quality standards and effectively communicate the importance of food safety." said Gale.

To read the full report click here.

Traceability set to improve with the GS1 DataBar.



GS1 have launched the new <u>GS1</u> <u>DataBar</u>, to be implemented globally from January 2014. This in an important development and will impact retailers both locally and internationally.

This provides several advantages to any one working in the supply chain and specifically for the fresh produce industry, allowing products that have not been previously barcoded to be quickly and accurately scanned at Point-of-Sale. The benefits of the new GS1 DataBar include:

- Improved Traceability with more information input into the barcodes
- Enhanced and wider category management
- Product authentication
- Global variable measure product identification
- Increased shrink control through more effective markdown management

This will increase the level of confidence in the safety of fresh produce and aligns with goals of the Produce Traceability Initiative (PTI).

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Read more about this...

Irradiation of tomatoes and capsicums approved by FSANZ.



Tomatoes and capsicums have recently been added to the list of produce permitted to receive irradiation as a phytosanitary measure by Food Standards Australia New Zealand (FSANZ).

This change comes following an application by Department of Agriculture, Fisheries and Forestry (DAFF) Queensland, in association with the New Zealand Fresh Produce Importers Association (NZFPIA), who requested the variation be made to Standard 1.5.3.

FSANZ has reviewed the application and the scientific evidence on the safety of irradiated tomatoes and capsicums as well as the effect irradiation has on their nutritional composition. The approval has been submitted to the Council Of Australian Governments (COAG) and awaits their decision.

Read more about this...

Join us on the Food Safety Booth at PMA Fresh Connections!





We are taking the opportunity to promote fresh produce safety, reaching in excess of 1000 people with a booth at the PMA Fresh Connections Trade Show on 12 and 13 June 2013 in Sydney.

We invite other Food Safety groups and organisations to join us on our booth to create a one-stop-shop for delegates wanting to learn more about food safety in fresh produce!

Email us to be involved!

Upcoming Events

 $\label{local_continuous} Join Fresh Produce Safety - Australia \& New Zealand at these events over the \\ \mbox{us6 campaign-archive2.com?u=c73673335989d1fc2801530c88id=c3f6e2c7ca&e=3117b344b6}$

Your Fresh Produce Safety Update

coming months





FPSANZ will be delivering two sessions at Freshcare Workshop, 11-12 April 2013 at the Sydney Masonic Centre. Click here for more details or to attend contact Freshcare - admin@freshcare.com.au or 1300 853 508.

PMA Fresh Connections Conference & Trade Show, 11-13 June 2013 at the Sydney Convention & Exhibition Centre. Registration is now open at www.pmafreshconnections.com.au

"What's New" on the website

- Ministry of Agriculture and Forestry, NZ, releases study on Residues on Fresh Produce.
- Dr Bob Whitaker's Key Learnings from the CPS Wash Water Symposium.

The Fresh Produce Safety — Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. Go to <u>"What's New"</u> on the Fresh Produce Safety A&NZ website for all our most recent news and updates.

Missed the February newsletter? Thats okay, click here to view it now.

Visit the website

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Your Fresh Produce Safety Update

Information and resources on food safety practices and research for all stakeholders in the fresh produce industry.

View this email in your browser









Welcome to the *third* edition of the Fresh Produce Safety Australia & New Zealand newsletter! Here's what's happening in the Fresh Produce Safety community this month...

Introducing the FPS A&NZ Technical Committee



The FPS Technical Committee has been formed to collaborate with the Center for Produce Safety at UC Davis to review the research proposals submitted by the Australian research community on the 28 March 2013.

The 2013 FPS Technical Committee includes:

- (Chair) Professor Les Copeland, Professor of Agriculture, Faculty of Agriculture and Environment University of Sydney (NSW)
- Dr Andreas Klieber, Agriculture Policy Manager, Coles-Wesfarmers (Vic)
- Dr David Miles, Senior Technical Officer, NSW Food Authority (NSW)
- Mr Scott Ledger, Senior Horticulturist (Postharvest), Hort VC Group (Qld)
- Mr Richard Bennett, Product Integrity Manager, Horticulture Australia Limited (HAL) (Vic)
- Mrs Allison Clark, General Manager for Marketing, Houston's Farm (Tas).

To read more about this, click here.

FPS A&NZ hosting Food Safety Hub at PMA Fresh Connections!

FPS A&NZ are proud to be hosting the first Food Safety Hub at <u>PMA Fresh Connections Conference and</u>

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Your Fresh Produce Safety Update

Trade Show in Sydney this year.

The Food Safety Hub will be one-stop-shop providing information for delegates wanting to know more about food safety for fresh produce.

Alongside FPS A&NZ representatives, several key organisations will be contributing to the success of the Food Safety Hub including:

- AUSQUAL
- Freshcare
- GS1 Australia
- NCS International
- SAI Global
- SGS Australia
- TQA Australia

These organisations will be showcasing new food safety products, services and initiatives at **The Food Safety Hub** all of which present strategic ways food safety can improve businesses in the fresh produce supply chain.

Find out more ...

Freshcare Workshop: Summary from the Freshcare team.



The recent Freshcare Workshop brought together experts from grower organizations, research institutions, retailers, wholesalers, auditors and trainers for two days of presentations, workshop sessions and networking opportunities.

Presentations from Horticulture Australia (HAL), University of Sydney and Food Standards Australia New Zealand (FSANZ) provided the latest information about the new US food safety regulations, food safety research priorities and the direction of food standards here in Australia. Detailed Freshcare updates and valuable program developments were provided.

"We covered a huge amount in the two-day workshop and feedback from delegates has been very positive." said Clare Hamiliton Bate, National Program Manager for Freshcare.

Read more...

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"Whats new in Food Safety for you?" presentation available.



At the recent Freshcare Workshop 11-12 April 2013, Associate Professor Robyn McConchie (USyd) delivered a presentation on "Whats new in Food Safety for you?.

The presentation was based on information provided by Dr Bob Whitaker (PMA) and Ms Bonnie Fernandez-Fenaroli (CPS) and summarises some of the food safety research made available at the Center for Produce Safety 2012 Research Symposium.

The presentation was followed by a facilitated discussion on filling the knowledge gaps and prioritising areas for food safety research specific to an Australian context.

Read More...

Upcoming Events

Join Fresh Produce Safety - Australia & New Zealand at these events over the coming months

11 - 13 June 2013

25 - 26 June 2013

PMA Fresh Connections
Conference & Trade Show
11-13 June 2013
Sydney Convention & Exhibition Centre
Darling Harbour, Sydney.
www.pmafreshconnections.com.au

Center for Produce Safety
Research Symposium
25-26 June 2013
Wegmans Conference Center
Rochester, New York.
www.cps.ucdavis.edu

"What's New" on the website

- Produce Traceability Initiative (PTI) webinars available
- Report helps translate produce safety research from CPS

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Your Fresh Produce Safety Update

The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. Go to "What's New" on the Fresh Produce Safety A&NZ website for all our most recent news and updates.

Missed the March newsletter? Thats okay, click here to view it now.

Visit the Fresh Produce Safety A&NZ website



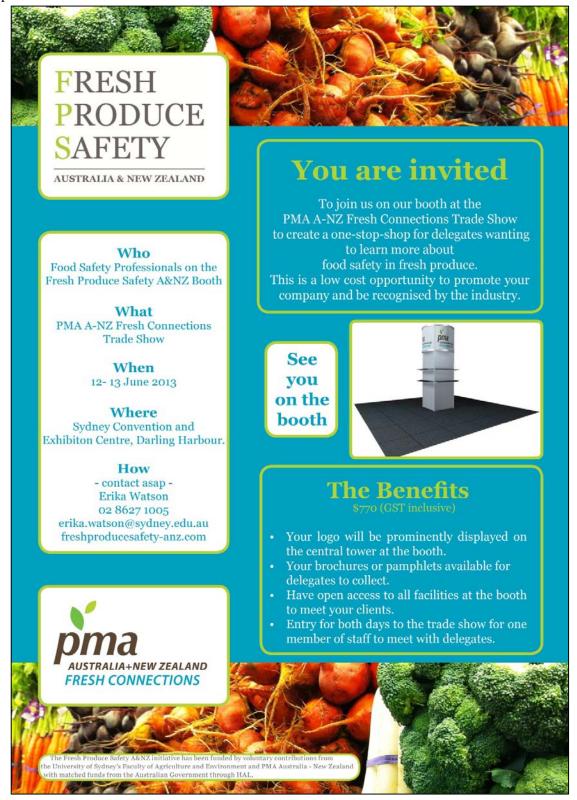
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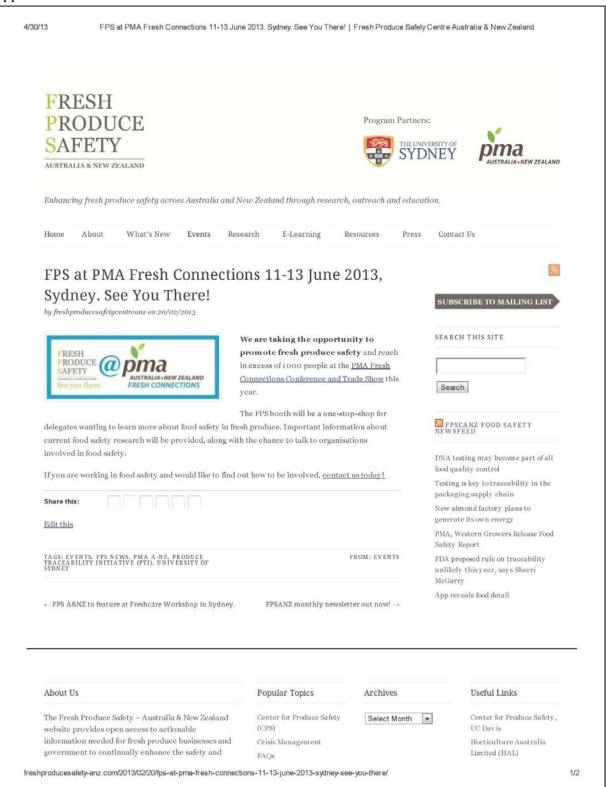


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appendix 6.4



appendix 6.5



appendix 6.6

4/30/13

Food Safety Hub at PMA Fresh Connections, 2013 | Fresh Produce Safety Centre Australia & New Zealand



Program Partners:





Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education.

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Food Safety Hub at PMA Fresh Connections, 2013

by freshproducesafetycentreanz on 23/04/2013



Fresh Produce Safety Australia and New Zealand (IPS A&NZ) are proud to be hosting the first Food Safety Hub along with several key organisations, at PMA Fresh Connections Conference and Trade Show in Sydney this year. The Food Safety Hub will be one-stop-shop providing information for delegates wanting to know more about food safety for fresh produce.

"The Food Safety Hub aims to raise awareness of food safety and traceability among all stakeholders of the Australian and

New Zealand fresh produce industry." said Michael Worthington, CEO PMA A-NZ.

He went on to say "This collaborative effort demonstrates a commitment to food safety and highlights how important food safety and traceability are for all businesses in the fresh produce supply chain".

FPS A&NZ are excited to announce that along with FPS A&NZ representatives, several key organisations will be contributing to the success of the Food Safety Hub including:

- AUSQUAL Pty Ltd. A certification body accredited by JAS-ANZ, providing quality management and food safety (HACCP) management systems.
- <u>Freshcare</u> Australia's on farm assurance program offering training, implementation, certification and support programs.
- GS: Australia Administers the global GS: System of supply chain standards in Australia
 across 22 industry sectors, including the launch of the new GS: GoSean iPhone App providing
 consumers with authorised and trusted food product information, and the new GS: DataBar to
 improve management of fresh foods.
- NCS International Offering businesses certification, risk management, business improvement and assurance.
- <u>SAI Global</u> Providing information services and solutions for managing risk, achieving compliance and driving business improvement.

freshproducesafety-anz.com/2013/04/23/food-safety-hub-at-pma-fresh-connections-2013/

7

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FPSCANZ FOOD SAFETY

DNA testing may become part of all food quality control

Testing is key to traceability in the packaging supply chain

New almond factory plans to generate its own energy

PMA, Western Growers Release Food Safety Report

FDA proposed rule on traceability unlikely this year, says Sherri

App reveals food detail

Food Safety Hub at PMA Fresh Connections, 2013 | Fresh Produce Safety Centre Australia & New Zealand

- <u>SGS Australia</u> A global company, provide industry leading inspection, verification, testing and certification services.
- <u>TOA Australia</u> Key management consultants to agribusiness in Australia, providing advice
 in a range of disciplines including food safety and quality assurance, environmental assurance,
 occupational health and safety, strategic planning and professional development.

FPSA&NZ will provide you with:

- · access to research in fresh produce safety,
- · allow you to identify food safety research priorities and
- · updates on the aims of the initiative of a collaborative paradigm to fresh produce safety.

"Fresh produce safety and traceability applies to all aspects of the supply chain in the fruit and vegetable industry, including growers, packers, processors, wholesalers, fresh produce retailers and distributors, "said Robyn McConchie, University of Sydney, "all of which have a responsibility to supply consumers with food that is healthy and safe."

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TAGS: AUS-QU AUSTRALIA, G SGS AUSTRALI UNIVERSITY O	AL, EVENTS, FRESHCARE, S1 DATABAR, HAL, NCSI, A, STAKEHOLDER, TQA AY F SYDNEY	GS1 PMA A·NZ, USTRALIA,	FROM: EVENTS
← PTI W ebina	rs Available	"Whats new in food safety for you	i?" presentation now available. →

The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. The project, initiated by voluntary funds from The University of Sydney Faculty of Agriculture and Environment, and PMA Australia - New Zealand, with matched funding from the Australian Government through Horticulture Australia Limited (HAL), aims to identify research needs and provide information and resources for all stakeholders

in the fresh produce industry on food safety practices

About Us

and research.

Popular Topics Archives

Center for Produce Safety (CPS)

Crisis Management

FAQs

Research

Wash Water

Center for Produce Safety, UC Davis Horticulture Australia Limited (HAL) PMA Australia-New Zealand Ltd

Useful Links

University of Sydney Faculty of Agriculture and Environment

Blog at WordPress.com.

Theme: Linen by The Theme Foundry

freshproduces afety-anz.com/2013/04/23/food-safety-hub-at-pma-fresh-connections-2013/



Program Partners:





PMA Fresh Connections Conference and Trade Show, 11-13 June 2013 Sydney Convention Centre, Darling Harbour Sydney

REGISTRATION FORM

Given Name:	
Surname:	
Organisation:	
Position:	
State:	
Country:	
Phone (work):	
Phone (mobile):	
Email:	
PLEASE INDICATE THE FOLLOWING	
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PMA	
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Age: Under 35	
Over 35	
Over 33	
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Any Dietary requirements we should know about?	
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Contact:	
Erika Watson, U Syd. Faculty of Agriculture & Environment, tel. +61 2 8627 1005, email erika.watson@sydney.edu.au	
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Emergency Contact Details:	Please indicate below
Where are you staying during the event	
Emergency Contact Name	
Emergency contact number	
Relationship to you	

Terms and Conditions:

Registration Fees

- · All cancellations must be notified in writing to Erika Watson who will notify MCI Australia
- Cancellations received on or before 3 May 2013 to MCI will be refunded in full, less 25% of the fee to cover administration costs.
- No registration refunds will be made after this date.

Transfer of Registration

 As an alternative to cancellation your registration may be transferred to another member of your organisation, subject to a AUD33 processing fee.

Social Functions

- The conference organisers reserve the right to cancel or vary optional activities if minimum numbers are not reached.
- Regrettably, optional social functions and additional ticket cancellations cannot be refunded if
 participation is cancelled less than 72 hours prior to the event.

Accommodation

- Accommodation cancellations please refer to individual accommodation venue cancellation
 policies listed to ensure you are aware of cancellation penalties that may be applicable for your
 chosen years.
- Cancellations in whole or part may incur a penalty at the accommodation venue's discretion. In these cases the accommodation venue may contact delegates to arrange payment.
- Cancellations and alterations up to 3 May 2013 are made by MCI Australia and will incur a booking change fee of AUD33.

Privacy Statement

- Your name and contact information, including electronic address, may be used by parties directly
 related to the event such as the organisers and approved stakeholders, for relevant purposes
 such as promotion, networking, and administration of this, and future events of this type. If you
 do not consent, please contact <u>Guest Services</u>
- In addition, your name, organisation and country/state of origin may be published on the
 delegate list which is provided to delegates, exhibitors and sponsors at the event. If you do not
 wish your details to be included in this list, please contact <u>Guest Services</u>

Intention to Photograph

 Delegates and others are advised that photographs may be taken during the conference and reproduced for promotional purposes.

Sign: Date:			-
·			_
ontact:			



Program Partners:





Food Safety Booth Involvement

PMA Fresh Connections Conference and Trade Show 11 – 13 June 2013, Sydney Convention Centre, Darling Harbour

INFORMATION SHEET

It is wonderful your company is part of the Food Safety Booth at PMA Fresh Connections 2013. The Tradeshow is open the 12-13 June 2013. It is an excellent opportunity to promote your business direct to the fresh produce industry and demonstrate the commitment you already have to food safety.

The benefits of being part of the Food Safety booth at PMA Fresh Connections 2013

The Food Safety Booth is a cost effective and prestigious opportunity to reach a large audience in the fruit, vegetable and floral industries in the Australasian region. Benefits include:

- Have a big presence at the Trade Show at the large booth with high-vis tower, which your company logo will be clearly displayed
- Promote/launch any new products, innovations, services your company is making
- Distribute company brochures/pamphlets to delegates
- Reinforce relationships with existing clients and develop new contacts
- Meet key decision-makers in the industry
- Contribute to a well-known conference and establish or reinforce your profile as a key player
- Stimulate discussion and extend management thinking on issues that will improve food safety for the fresh produce and floral industry

Delegate profile of PMA Fresh Connections 2013

This conference is aimed to attract a wide audience of personnel from the entire fruit, vegetable and floral industries in the Australasian region. Delegates will comprise of:

- Growers, packers and marketers
- Wholesalers and retailers
- Logistics suppliers
- Packing and packaging companies
- Industry groups and promotional organisations
- Research and technical experts
- Government professionals
- Importers and exporters
- Horticulture inputs and systems suppliers
- Consultants and influencers
- Business services suppliers

Contact:



Program Partners:





If you haven't already, you will need to provide us:

- 1. With a high resolution EPS file of your company logo so we can design the high-vis tower and clearly display your involvement at the Food Safety Booth.
- A company tag line to give to Produce Plus+ Magazine who is putting together the Food Safety Booth exhibitor profile for PMA Fresh Connections 2013.
- 3. Company address to which we can put on the invoice and email to you.

In the meantime:

For queries about PMA Fresh Connections Conference and Trade Show Sydney such as accommodation options (discounted options end 3rd May 2013), the conference agenda or more details please visit the website: pmafreshconnections.com.au.

Registered Participants:

As you know the price you paid includes entry to the trade show or the full conference or perhaps both. Please fill in the details of the each of the participants on the separate registration form you have been sent and return it to me be the $\underline{17}^{th}$ April 2013.

You can always add more staff if your company decides to, please let me know. Bear in mind that the early bird prices end on the $3^{\rm rd}$ May 2013.

As more information is provided to me by the PMA Fresh Connections Event Team (MCI), I will keep you up to date regarding set up and logistics for the booth.

Contact:







FOOD SAFETY HUB

PMA Fresh Connections Conference and Tradeshow 11- 13 June 2013

Thank you for being part of the Food Safety Hub!

It is exciting to announce this as the first time a collaborative booth for food safety and traceability has been organised at PMA Fresh Connections and it wouldn't work without your involvement! Promoting the large booth raises the profile of food safety and the importance of food safety systems on a whole.

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What you can bring	5
Set up/pack down	5
Optional Promotion and Prizes	6
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More information	8
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Introduction:



FPS A&NZ is thrilled to host the **Food Safety Hub**, which is the largest style of stand, making a big impression at the conference and communicating to industry the importance of food safety.

It is envisaged that delegates will be able to see the Food Safety Hub from a distance and know that all information about food safety and traceability that concerns their business can be obtained from this point, while reducing the cost significantly to individual companies to host even the smallest stand.

Each business will of course be able to promote their own business under the Food Safety Hub umbrella, with logos displayed on the tower panels.

Who is involved:

Additional participants were at extra registration cost to the organisation. Please advise if your organisation has registered or is planning to register other participants to contribute to promoting your organisation on the booth.

Organisation	Participant	Days attending
FPS ANZ	Erika Watson	Both
AUS-QUAL	Bill Marquis	Both
	Joanne Edwards	Both
Freshcare	Clare Hamilton-Bate	Both
	Katie Lau	Wednesday
	Jacinta Fong	Thursday
GS1 Australia	Andrew Steele	Both
BSI incorporating NCSI	Todd Redwood	Both
SAI Global	Inga Sadovskaia	Both
SGS Australia	Maria Longstaff Johnny Trann Angus Muffett	Both
TQA Australia	Tundra Howe	Both







Where to go:

Trade Show Location:

Hall 5

Sydney Convention and Exhibition Centre Darling Drive Darling Harbour NSW 2000

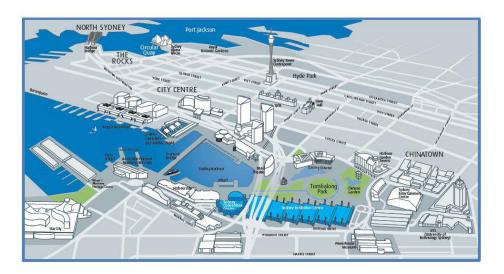
Arriving onsite:

Collect registration items from the registration desk on Level 1, Parkside Foyer

Tuesday 11 June: 1200-2000 hours

Wednesday 12 June: 0630-1730 hours

Thursday 13 June: 0700-1700 hours



For more details on how to get there, transport and location access please visit the Sydney Convention and Exhibition Centre - http://www.scec.com.au/The-Centre/Essential-Information/Maps/









What FPS A&NZ have already provided:

Furniture:

At the booth there will be **three tables with four chairs to each table** to meet clients. These need to be shared amongst the groups.



Also a **cupboard** will be provided for stowing personal belongings while on the booth, however space is limited and it may not be possible to accommodate large bags.

Each organisation will have a **display stand** for brochures and promotional material (L $325mm \times D 325mm \times H 1550mm$).



Internet:

Sydney Convention & Exhibition Centre (SCEC) will provide free wireless internet to be used responsibly.

Signage:

Signage for the tower has been paid for and organised with all logos of participating organisations included.



Figure 2. Tower head part a (x2).



Figure 3. Tower head part b (x2).



Figure 1. Tower Panels (x2).









What you can bring:

- Please bring brochures, flyers and pamphlets to promote your business.
- Optional, please let me know if you anticipate on bringing any of the following as soon as possible:
 - Laptop to be used only during meetings at the tables as there is not a table each.
 There will be a power board located in the cupboard that will be shared and can be used to charge electronics.
 - Banner 1 pop up banner per organisation (no larger than H 2m x W 1m)
 OR
 - Poster the booth is open plan and space for posters is minimum (if any), but if you
 have a poster rather than a banner, we could see what we can do on the day of set up.

Please advise on what you anticipate dropping off by 30st May 2013, and confirm by 4th June 2013.

NOTE: If you would like to ship brochures, we recommend that you contact <u>Agility Fairs and Events</u>, the official logistics provider for the PMA Fresh Connections Conference & Trade Show 2013, to arrange for a full door-to-booth service. This needs to be completed **by the 24th May 2013**. Please see pages 4 and 5 of the <u>PMA Fresh Connections Manual</u> for details. Please also advise Erika Watson if you anticipate doing this.

- 1. Complete and return the <u>Agility transport request form</u> and follow any additional instructions they then provide.
- 2. Ensure an <u>Exhibitor freight delivery label</u> is attached to any package you ship to the Sydney Convention & Exhibition Centre.

Setting Up/Packing Down:

Drop off: your collateral (brochures, and if you have a banner/poster) to Erika Watson at SCEC Hall 5 on *Tuesday 11 June 2013 between 1500 and 1730 hrs.* Contact number on the day: 0450 061 434.

Set up: Wednesday 12 June from 0700 to 1100 hours.

Remember you <u>MUST</u> be registered to access the trade show and have already collected your registration items.

Pack down: Thursday 13 June from 1630 to 1730 hours. You are responsible for the pack up of any items you bring along.







Date	Access time	Completion time	Description
Tuesday 11 June 2013	1000 hours	1300 hours	Exhibition company set-up
	1300 hours	1500 hours	Custom stand access for build
	1500 hours	2000 hours	Exhibitor set up
	1800 hours	2000 hours	Welcome reception (not in trade show)
Wednesday 12 June 2013	0700 hours	1100 hours	Exhibitor set up
-	1300 hours	1700 hours	Exhibition open
Thursday 13 June 2013	1300 hours	1630 hours	Exhibition open
•	1630 hours	1730 hours	Exhibitor pack down
	1730 hours	2359 hours	Custom stand dismantle
	1730 hours	2359 hours	Exhibition company pack down

<u>All</u> organisers, contractors and exhibitors are required to where safety vests during the set up and dismantle of the exhibition. These can be purchased (\$6) from the Exhibitor Services Desk (located between Halls 5 and Parkside Convention Centre), Security gatehouse, before entering the loading dock, or the Sydney Convention & Exhibition Centre Car Park (vending machine).

Optional Promotion and Prizes:

Food Safety Hub brochure

Containing all participating organisations - contact details and promotional paragraph already provided to MCI. Needed: JPEG of your company logo by 24th May 2013.

To serve food samples:

If anyone anticipates providing samples (confectionary included) please let me know, and I will fill out the form for the whole booth. Needed: by 24^{th} May 2013.

Prize Draw:

<u>Proposal:</u> It was thought that as Hub we could contribute to a singular prize to promote the goods and services of on the booth, by which all organisations contribute an equal small amount towards an iPad mini or similar, collect names of delegates wishing to enter (shared amongst all organisations) and draw the winner by chance at the end of the show. If this is something all parties are interested in then we must comply with the <u>NSW Office of Liquor, Gaming and Racing</u> to go ahead. Needed: by 24th May 2013.

These options depend on feedback and collaboration with you.





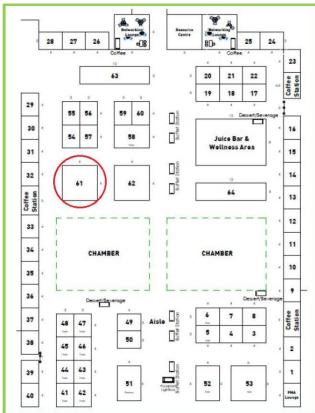




Trade Show Floor Plan:



The booth is open plan (6x6m), with a central tower. Each of the company brochure stands will we arranged around the boarder of the booth. Final booth floor plans will be subject to change considering space, number of banners (total of 7 all together) and tables. It is highest priority to allow accessibility to the stand and tables for meetings as well as have equal visibility for all participants on the booth.











More information:

Please visit the <u>PMA Fresh Connections website</u> for further details. Download a copy of the <u>The Full Conference Program</u>.

Contact me with any questions you have: Erika Watson | (w) 02 8627 1005 | erika.watson@sydney.edu.au

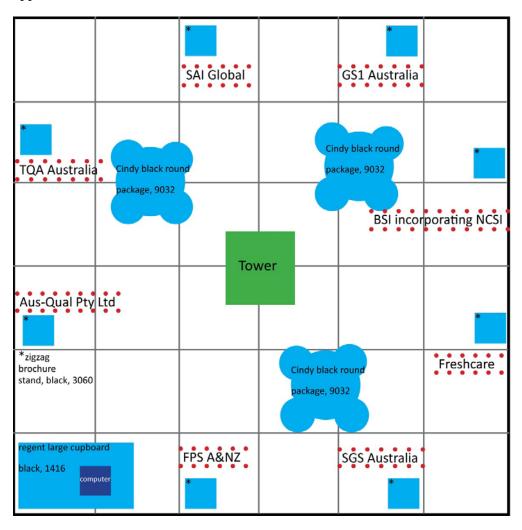
Checklist:

Task	Due Date
Exhibitor contact and promotional paragraph returned to Erika Watson	16 th May 2013
Agility Shipment of brochures (if required) form (please advise Erika Watson also)	24 th May 2013
Company jpeg logo for Food Safety Hub Brochure to Erika Watson	24 th May 2013
Serving food samples at booth - please advise Erika Watson	24 th May 2013
Decision regarding Prize Draw to Erika Watson	24 th May 2013
Indication on what collateral you would like to bring –communicated to Erika Watson	30 th May 2013
Confirmation to Erika Watson on what collateral will be dropped off on Tues 11 June	04 th June 2013
Read the PMA Fresh Connections Manual and associated documents from SCEC	31 st May 2013

appendix 7.4



appendix 7.5



appendix 7.6

RUN-SHEET: PMA Fresh Connections, Food Safety Hub

Main Contacts:

DATE	TIME	WHAT	WHERE	DETAILS
Tuesday 11 June				
	2.45 pm to 5.00 pm	Set up Food Safety Hub	Parkside Foyer, Level 1, Sydney Convention & Exhibition Centre (SCEC) & HALL 5	Register Set Up Booth Collect Collateral From Organisations (See below)
Wed 12 June				
	7.30 am to	Welcome breakfast (networking opportunity)	Parkside ballroom, SCEC	Refer to Conference Program
	9.15 am to 1.00pm	PMA Fresh Connections Program (presentations)	Parkside Auditorium, SCEC	Refer to Conference Program
	1.00 pm to 5.00 pm	Tradeshow open	Exhibition Hall 5, booth #61	Finish set up Direct interested parties to website. Visit other booths Times (rough indication): 1-1.30pm EW+JM+AG+RM 1.30-2pm EW+JM 2-2.30pm EW+AG 2.30-3pm JM +AG+RM 3-4pm EW 4-5pm JM +AG+RM

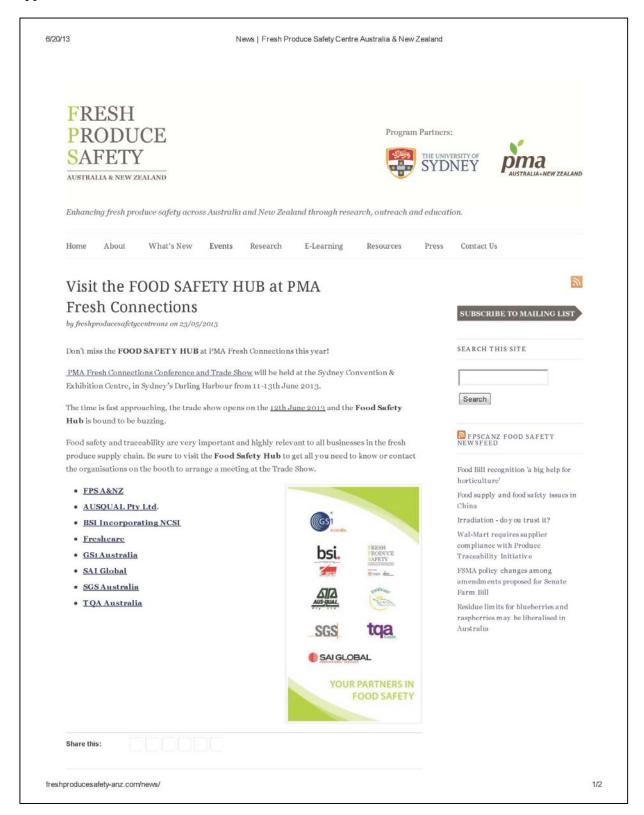
RUN-SHEET: PMA Fresh Connections, Food Safety Hub

Thursday 13 June				
	8.45 am to 1.00 pm	PMA Fresh Connections Program (presentations)	Parkside Auditorium, SCEC	Refer to Conference Program
	1.00 pm to 4.30 pm	Tradeshow opens (Closing Drinks 4-5pm)	Exhibition Hall 5, booth #61	Direct interested parties to website. Times (rough indication): • 1-1.30pm EW+JM+AG • 1.30-2pm EW • 2-2.30pm JM+AG+RM • 2.30-3pm JM +AG • 3-4pm EW • 4-5pm Closing Drinks/Pack Down
	4.30 pm to 5.30 pm	Booth pack down	Exhibition Hall 5, booth #61	Help in pack up of Furniture and FPS part of booth (all collateral is responsibility of individual organisations)

RUN-SHEET: PMA Fresh Connections, Food Safety Hub

Organisation	Contact	Collateral
Ausqual	Bill Marquis: 0408 831 402 Jo Edwards:	Banner maybe, brochures (Freshcare dropping off)
BSI inc. NCSI	Todd Redwood: 0414 689 508 Matthew Day:	2 x box (brochure), 1x banner
Freshcare Clare Hamilton-Bate: 0407 930 586 1x banner *Katie Lau (Wed): 0404 947 321 Bookmarks *Jacinta Fong (Thurs): 0432 191 718 Flyer , newsletter (FS&Q, Environment, Winery		
GS1 Australia	*Andrew Steele: 0417 377 374 Michael Wilcox (Wed): Melanie Wishart (Thur):	1 x banner 50ea of Recallnet, Case study Drury, GoScan bookmarks, GoScan brochure, DataBar brochure, corporate pocket-size booklets.
SAI Global	*Inga Sadovskaia: 0448 486 095	1 x banner, 2-3 x box brochures, 1x box bags/stress balls.
*Maria Longstaff: 0414 155 464 Folders, poster, banner? Caps, mugs, brochures, umbrella? Angus Muffett (Wed) Johnny Tran (Thurs)		Folders, poster, banner? Caps, mugs, brochures, umbrella?!
TQA Australia	*Tundra Rowe: 0407 317 533	2 x boxes delivered by Agility, 1x banner
FPS A&NZ	*Erika Watson	100x pledge brochure, pens, power board, jars for displaying pens

appendix 7.7



6/20/13

Your Fresh Produce Safety Update

Information and resources on food safety practices and research for all stakeholders in the fresh produce industry.

View this email in your browser



Program Partners:





We Icome to the *fourth* edition of the Fresh Produce Safety Australia & New Zealand newsletter!

Here's what's happening in the Fresh Produce Safety community this month...

Find out about the Fresh Produce Safety Centre at PMA Fresh Connections



Following an industry survey recently conducted, 98% of companies and organisations from every sector of the fresh produce industry have said that our industry needs a Fresh Produce Safety Centre, to undertake relevant research projects, be the go-to source for information and education for all things to do with food safety and to provide an important link with regulatory authorities.

Find out more about the FPSC and how you can support this industry-driven initiative by visiting the inaugural "Food Safety Hub" (Booth # 61).

Visit the FOOD SAFETY HUB, booth #61

Don't miss the FOOD SAFETY HUB at PMA Fresh Connections this year!

PMA Fresh Connections Conference and Trade Show will be held at the Sydney Convention & Exhibition Centre, in Sydney's Darling Harbour from 11-13th June 2013.

Be sure to visit the Food Safety Hub to get all

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6/20/13

Your Fresh Produce Safety Update





you need to know or contact the organisations on the booth to arrange a meeting at the Trade Show.





AUSQUAL Pty Ltd.
BSIIncorporating NCSI
Freshcare
GS1 Australia
SAI Global
SGS Australia
TOA Australia











Upcoming Events

Join Fresh Produce Safety - Australia & New Zealand at these events over the coming months

11 - 13 June 2013

25 - 26 June 2013

PMA Fresh Connections
Conference & Trade Show
11-13 June 2013
Sydney Convention & Exhibition
Centre
Darling Harbour, Sydney.

lney.

Center for Produce Safety
Research Symposium
25- 26 June 2013
Wegmans Conference Center
Rochester, New York.
www.cps.ucdavis.edu

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 $\underline{www.pma fresh connections.com.au}$

6/20/13

Your Fresh Produce Safety Update

"What's New" on the website

- SURVEY RESULTS: Does the Industry need a Fresh Produce Safety Centre?
- Fresh produce safety important to industry: recognising young professional with award.

The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. Go to "What's New" on the Fresh Produce Safety A&NZ website for all our most recent news and updates.

Missed the April newsletter? Thats okay, click here to view it now.

Visit the Fresh Produce Safety A&NZ website



 ${\it Copyright} @ 2013 \ {\it Fresh Produce Safety - Australia \& New Zealand, All rights reserved.} \\ {\it unsubscribe from this list} & {\it update subscription preferences} \\$



us 6. campaign-archive 1. com/? u=c73673335989d1 fc 2801530c8 &id=549705 ec92 &e=3117b344b6







Does the industry need a Fresh Produce Safety Centre?

Introduction

As part of the Fresh Produce Safety – Building a New Paradigm Project, a primary objective was to scope the feasibility for a dedicated body to identify research needs and provide appropriate food safety solutions for the Australian fresh produce Industry.

The Project has made strong progress towards this objective and it was decided to survey the industry to determine the level of support for the establishment of a Fresh Produce Safety Centre. The survey was sent to the entire list of individuals who have registered to receive regular newsletters. Of the 229 recipients, who represent the full cross section of the fresh produce supply chain, 48% responded to the survey (Figure 1).

Response Rate to the Survey

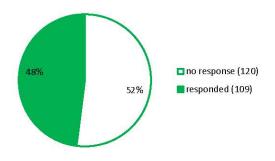


Figure 1. The number of survey responses received was almost 50% (48%).

Contacts:

 $Erika \ Watson \ | \ U \ Syd. \ Faculty of \ Agriculture \ \& \ Environment \ | \ tel. + 61 \ 2 \ 8627 \ 1005 \ | \ email \ erika. watson @ sydney.edu.au$







Survey Questions

The survey contained questions aimed at gauging industry's in-principle support for the establishment of a Fresh Produce Safety Centre; whether the University of Sydney was an appropriate 'base' for the centre; what should be the overarching role of the centre; and what were the priorities for food safety research.

Survey Results

The highest response rate was received from *grower/packers* and those working in *quality assurance* (14%), with *industry organisation* and *consultancy* the second highest. As the range of categories is between 4 and 14% the overall industry is quite well represented (Figure 2). *Other* was an option provided in case the business the respondent represented fell outside the categories provided. Respondents in the *Other* category included: those that listed themselves as vertically integrated businesses – grower/supplier/wholesaler, as media or as service providers outside the categories listed.

Who Responded to the Survey?

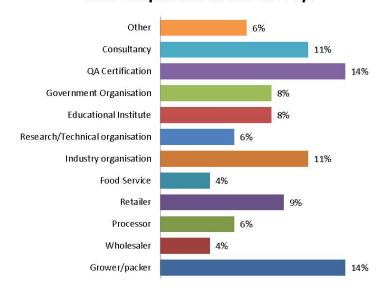


Figure 2. A graph showing the percentages of each sector who responded to the survey.

Contacts:



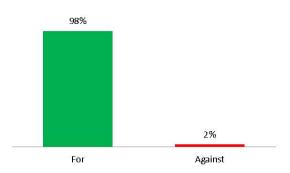






From the survey responses, there was overwhelming support for the establishment of the Centre (98%) (Figure 3) and support for it to be housed at the University of Sydney (95%) (Figure 4).

What is the in-principle support for the establishment of a FPSC?



 $Figure \ 3. \ There \ is \ strong, \ in-principle \ support \ for \ the \ establishment \ of \ the \ Fresh \ Produce \ Safety \ Centre.$

What is the level of support for FPSC to be housed at the University of Sydney

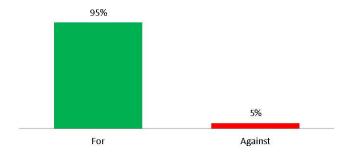


Figure 4. Support for the Fresh Produce Safety Centre to be housed at the University of Sydney.

Contacts:







Calling for and managing food safety research projects received the highest ranking for the main role of the Centre, while representing the industry on regulatory food safety issues was the least appropriate. Additionally providing industry wide education and information and news on fresh produce safety was seen as an important part of the role of the FPSC, with majority of respondents ranking theses outreach roles as 1^{st} , 2^{nd} or 3^{rd} in priority (Figure 5).

Responses to the role of the centre question indicates that industry sees a gap in food safety for research and outreach of research, and will assist in ensuring that the roles of other organisation will not be duplicated.

Several comments from this question highlighted the importance of crisis management training, incident response planning and monitoring, emphasis on effective outreach and training to growers and staff in remote areas. It was also recommended that there is importance in liaising with other national and international food safety bodies. Finally it was recommended that an important goal of the research is to support advocacy activities for the betterment of the industry.

What is the Role for the FPSC?

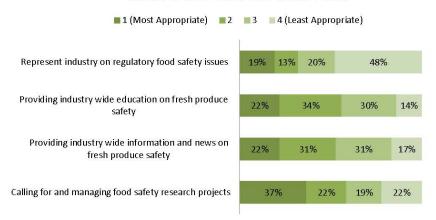


Figure 5. The role of the Fresh Produce Safety Centre is suggested by the industry, to focus on the management of food safety research projects.

Contacts:









Finally the survey asked what the research priorities should be to address the gaps in knowledge on food safety. There were 10 areas listed, and respondents were asked to choose their top 3 priorities. Of all the research areas, the topic most selected was *Microbial contamination on-farm* followed by topics *Pathogens in the postharvest supply chain* and *Water – Postharvest* (Figure 6).

It is vital to mention that the majority of comments given emphasized the importance of effective outreach, education and extension to improve the food safety culture. Other suggestions by respondents included postharvest pathogen ID and management, tracking and traceability products along supply chain and residues in imported foods.

Food Safety Research Priorities for the Australian Fresh Produce Industry

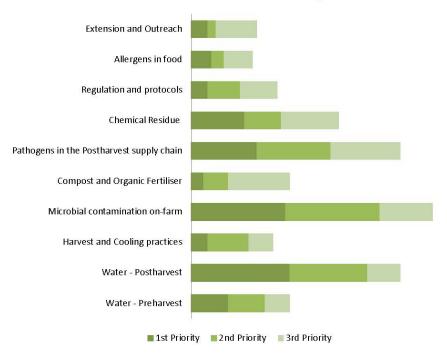


Figure 6. Food safety research priorities were identified with respondents asked to choose their top 3 research areas.

Contacts:







A space was provided for respondents to leave further comments. It was made apparent that the government also wants to work with the proposed centre to remove duplication and ensure there is no overlap in function. Several comments addressed the idea of ensuring awareness and instilling a culture of responsibility in all participants in the supply chain, to provide fresh produce which is safe for consumers. Discussion around coordinating information packages through existing distribution channels such as assurance program providers and consultants should also take place to improve the spread of information to regional areas.

It was also noted that it is important to include New Zealand in this initiative and to support collaboration with research facilities and organisations in New Zealand.

Other comments included: "a great initiative as it will provide guidance to QA systems in Australia" (anon – Industry Organisation) and "any research that improves our knowledge and understanding of produce and farm safety should be conducted" (anon – Auditor).

Conclusions

The survey unequivocally indicated that there is widespread support for the establishment of a Fresh Produce Safety Centre for the whole fresh fruit and vegetable industries that will identify and conduct industry-driven research projects and provide valuable information, education and outreach on all aspects of fresh produce safety.

Contacts:

appendix 7.10

6/20/13 News | Fresh Produce Safety Centre Australia & New Zealand FRESH **PRODUCE** Program Partners: SAFETY SYDNEY AUSTRALIA & NEW ZEALAND Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education. About What's New E-Learning Resources Press Contact Us SURVEY RESULTS: Does the Industry need a Fresh Produce Safety Centre? SUBSCRIBE TO MAILING LIST by freshproducesafetycentreanz on 28/05/2013 SEARCH THIS SITE A primary objective for FPS A&NZ was to scope out the feasibility for a dedicated body to identify research needs and provide appropriate food safety solutions for the Search Australian fresh produce Industry. FPS A&NZ has made strong progress towards FPSCANZ FOOD SAFETY this objective and it was decided to survey the industry to determine the level of support for the establishment of a Fresh Food Bill recognition 'a big help for Produce Safety Centre. The survey was sent horticulture to the entire list of individuals who have Food supply and food safety issues in registered to receive regular newsletters from FPSA&NZ, representing a large range of sectors in the fresh produce industry. Irradiation - do you trust it? Wal-Mart requires supplier The survey contained questions aimed at gauging industry's in-principle support for the compliance with Produce establishment of a Fresh Produce Safety Centre; whether the University of Sydney was an Traceability Initiative appropriate 'base' for the Centre; what should be the overarching role of the Centre; and what were FSMA policy changes among the priorities for food safety research. amendments proposed for Senate From the responses, there was overwhelming support, in principle, for the establishment of a Fresh

Produce Safety Centre (98%) and for it to be "housed" at the University of Sydney (95%).

The survey also revealed that the role of the proposed Centre was to call and manage research in food safety and importantly to provide industry wide education and information and news on fresh produce safety, while representing the industry on regulatory matters was the most unpopular role for the Centre. Results like this provide information that will assist in ensuring that the roles of other organisations will not be duplicated.

Research priorites needed to address the gaps in knowledge in food safety covers a wide variety of areas, but the top three topics as chosen by the respondents were Microbial contamination on-farm $followed \ by \ topics \ \textit{Pathogens in the postharvest supply chain} \ and \ \textit{Water-Postharvest}.$

The survey unequivocally indicated that there is widespread support for the establishment of a

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Residue limits for blueberries and raspberries may be liberalised in

outreach on all aspects of fresh produce safety.			
Share this:			
rags: Fags, FPS News, FSANZ, NEW ZEALAND, on-Farm tood Safett, PMA A-NZ, RISEARCH, stakeholder, University of Sydney	FROM: PRI	ESS, RESEARCH	
– Visit the FOOD SAFETY HUB at PMA Fresh Connections Fresh produce safety important to industry: r	ecognising young professional	with award. →	
About Us	Popular Topics	Archives	Useful Links
The Fresh Produce Safety – Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. The project, initiated by voluntary funds from The University of Sydney Faculty of Agriculture and Environment, and PMA Australia - New Zealand, with matched funding from the Australian Government through Horticulture Australia Limited (HAL), aims to identify research needs and provide information and resources for all stakeholders in the fresh produce industry on food safety practices and research.	Center for Produce Safety (CPS) Crisis Management FAQs Research Wash Water	Select Month ▼	Center for Produce Safety, UC Davis Horticulture Australia Limited (HAL) PMA Australia-New Zealand Ltd University of Sydney Faculty of Agriculture and Environment
т	Blog at WordPress.com.	dry	

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appendix 7.11





WHAT IS THE FRESH PRODUCE SAFETY CENTRE?

The Fresh Produce Safety Centre (FPSC) will be dedicated to improving food safety for the entire fresh fruit and vegetable industries of Australia and New Zealand. It will be based at the Faculty of Agriculture & Environment at the University of Sydney and affiliated to the Center for Produce Safety at the University of California (Davis).

Learn more about the FPSC today!

www.freshproducesafety-anz.com

DOES THE INDUSTRY NEED A FRESH PRODUCE SAFETY CENTRE?

According to a recent survey of companies and organisations across all sectors of the fresh produce industry, 98% supported the concept of a FPSC and 95% indicated their support for it to be based at the University of Sydney.

WHAT IS THE ROLE OF THE FPSC?

Based on the findings from the same survey, the FPSC's role (in order of priority)

- 1. Call for and manage food safety research projects that are highly relevant to industry
- 2. Provide food safety information, news, education and outreach to the
- 3. Engage with regulatory and other organisations for effective & efficient food

WHO WILL RUN THE FPSC?

The FPSC will be established as a not-for-profit organisation, with a broadbased Board of Directors selected from industry with the appropriate skills to oversee the role of the organisation.

The FPSC will employ its own staff to carry out its activities, with all research projects selected and reviewed by a Technical Committee and contracted out to experts in the respective fields.

HOW WILL THE FPSC BE FUNDED?

As a voluntary organisation, the FPSC will rely on voluntary funding. Pledges from industry will be sought to fund the operations (managing the research projects, maintaining the website and providing the education and outreach), while research projects will be funded from industry, research grants and matching funding from government agencies.



PLEDGE YOUR SUPPORT

Show your support for the industry to provide healthy and safe food.

BE RECOGNISED

All supporters will be recognised on the website, in newsletters, at forums and in general communications by the FPSC.



PLATIMUM SUPPORTER \$25,000 per annum

Already pledged:



GOLD SUPPORTER

\$10,000 per annum



BRONZE SUPPORTER \$1000 per annum

YOUR PLEDGE



Company/Organisation:

Address:

Contact Name:



Telephone/Mobile:

Email Address:



Supporter Level Pledge:

Signature:

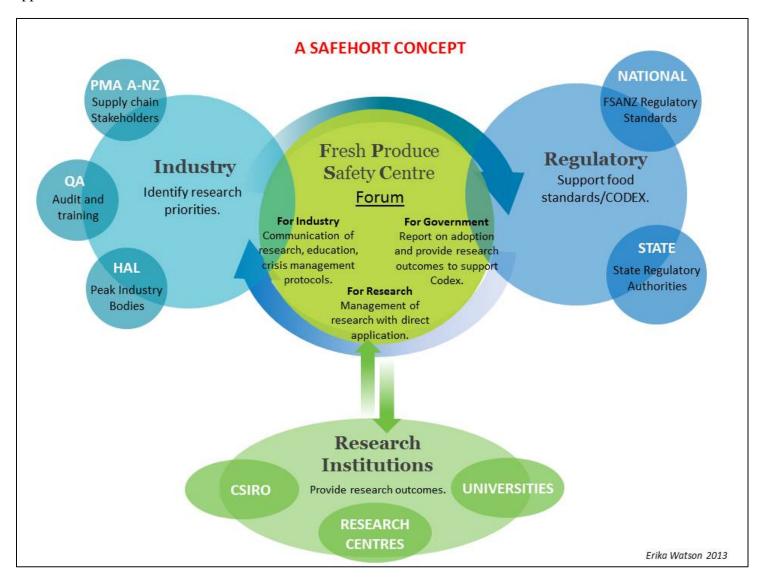
Please email your pledge to: erika.watson@sydney.edu.au or m.worthington@pma-anz.com

Thank you for supporting the FPSC!

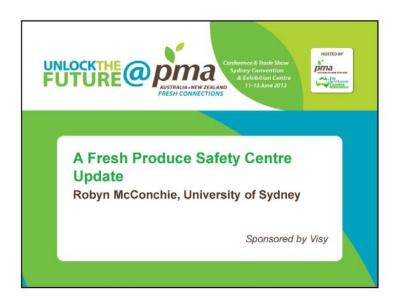


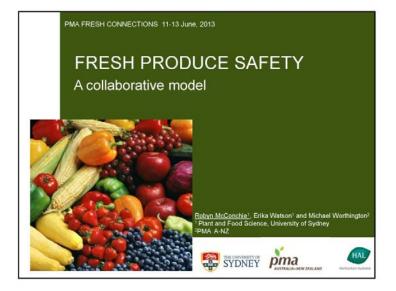


appendix 7.12



18/06/2013





1



The HAL Project

Background

Initiated and funded by The University of Sydney Faculty of Agriculture and Environment, PMA Australia – New Zealand and Horticulture Australia Limited (HAL).

Goals

- · Identify a model for fresh produce safety research and extension in Australia.
- · Raise awareness of the challenges for produce safety and the importance of enhancing our produce safety practices.
- Plan how the industry will deal with outbreaks in the region, particularly crisis mitigation, management and consumer communication.
- · Identify research priorities
- Develop local and international collaborative partnerships in research, outreach and education to build knowledge base for the Australian industry.









FRESH

SAFETY

AUSTRALIA & NEW ZEALAND

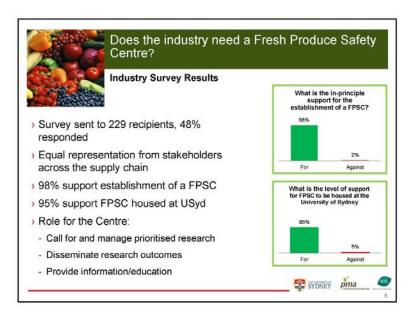
Outcomes of the Project

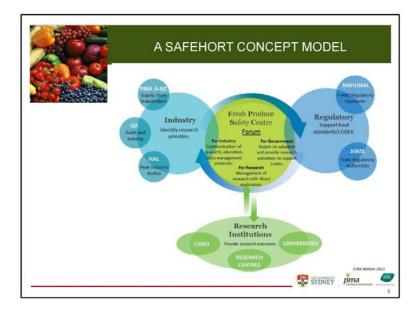
- · Forum: Building a New Paradigm
- PMA Food Safety Task Force
- · Research partnership with CPS UC Davis
- · Information platform: a go-to website PRODUCE . Monthly newsletter: Your Fresh Produce Safety Update www.freshproducesafety-anz.com

 - · Freshcare Biennial Workshop: Research Update
 - · Scope the feasibility of a Centre: Industry Survey
 - · Research priorities identified
 - · Collaborative Food Safety Booth

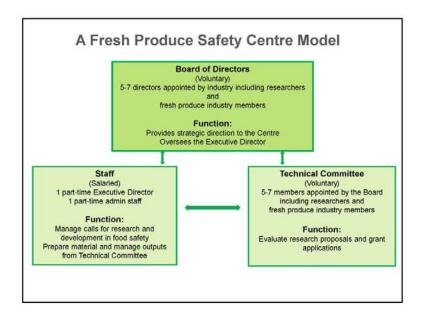


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News | Fresh Produce Safety Centre Australia & New Zealand



Program Partners:





Enhancing fresh produce safety across Australia and New Zealand through research, outreach and education.

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Fresh produce safety important to industry: recognising young professional with award.

by freshproducesafetycentreanz on 11/06/2013



The entire fruit and vegetable industry shares the responsibility of providing customers with healthy and safe food and recent young professional award demonstrates the importance fresh produce safety has in the industry.

The Australian Institute for Agricultural Science and Technology (AIAST) awarded

the 2013 Young Professional in Agricultural Industry Award to Erika Watson, Fresh Produce Safety Project Officer at the University of Sydney.

In this role, Erika has been working towards the establishment a Fresh Produce Safety Centre, which will be dedicated to improving food safety for the fresh fruit and vegetable industries.

FPS A&NZ is a collaborative project funded by PMA A-NZ and the University of Sydney with matched funds from the government through HAL, and has been maintaining momentum towards

Outcomes have included a national forum with guest speakers from The Center for Produce Safety, UC Davis and PMA US, outreach activities such as the launch of the FPS A&NZ website, the monthly newsletter, an industry survey, and presentations at the Fresheare workshop, identifying research priorities and a call for research proposals and finally the inaugural Food Safety Hub at PMA Fresh Connections where delegates can find out more about the proposed Fresh Produce Safety Centre.

To read the full story about Erika and the AIAST award, click here.

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← SURVEY RESULTS: Does the Industry need a Fresh Produce Safety Centre?

'What it takes to instill a food safety culture in your business' new presentation → freshproducesafety-anz.com/news/

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'What it takes to instill a food safety culture in your business' new presentation

by PMAANZ on 19/06/2013



Food Safety in our industry is a consumerright, requiring a collaborative effort from all sectors of the industry. Dr Douglas Powell, Professor of food safety at Kansas State University was at <u>PMA Fresh</u> <u>Connections 2013</u> Conference last week to challenge businesses not to rely on regulation, but to rely on their staff to deliver safe food.

If you missed Doug's presentation, it is now

available for download below in three abridged segments:

- · What it takes to instill a food safety culture in your business
- The case for instilling a food safety culture in your business
- Sprouts a special problem

Speaking to www.freshfruitportal.com following his presentation, Doug said:

"Having lived here [Australia] for over two years, I don't see that public culture of food safety. There were 140 people sick in Canberra, because they were using raw eggs in mayo and yet there was no media coverage about it."

"The thing I hear most in food safety, whether it's produce or anything else is – 'We've always done it this way and I've never made anyone sick'. What it probably means is that you don't have the surveillance systems to pick it up."

"This is a reality – there will be outbreaks, like with rockmelon and peanuts in Australia and you as an industry have a chance to come together and get proactive, or wait until the next outbreak."

 $Doug's \ blog, `Barfblog' is \ a \ handy \ source \ of \ current \ food \ safety \ information. \ You \ can \ check \ it \ out \ at \ \underline{www.barfblog.com}$

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FSMA policy changes among amendments proposed for Senate Farm Bill

Residue limits for blueberries and raspberries may be liberalised in Australia

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 $Enhancing\ fresh\ produce\ safety\ across\ Australia\ and\ New\ Zealand\ through\ research,\ outreach\ and\ education.$

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Were you spotted at the Food Safety Hub at PMA Fresh Connections, 2013?

by PMAANZ on 20/06/2013



Fresh Produce Safety Australia and New Zealand (FPSA&NZ) were proud to join several key organisations to host the first-ever Food Safety Hub, at PMA Fresh Connections Conference and Trade Show in Sydney last week. The Food Safety Hub was a one-stop-shop providing information for delegates wanting to know more about food safety for fresh produce. Were you spotted at the Food Safety Hub?











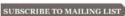






With thanks to PMA Fresh Connections for providing us with these images.

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FSMA policy changes among amendments proposed for Senate Farm Bill

Residue limits for blueberries and raspberries may be liberalised in Australia

News | Fresh Produce Safety Centre Australia & New Zealand

FPS A&NZ wishes to thank the following key organisations for their participation in the Food Safety Hub:

- AUSOUAL Ptv Ltd. A certification body accredited by JAS-ANZ, providing quality
 management and food safety (HACCP) management systems.
- Freshcare Australia's on farm assurance program offering training, implementation, certification and support programs.
- <u>GS1 Australia</u> Administers the global GS1 System of supply chain standards in Australia
 across 22 industry sectors, including the launch of the new <u>GS1 GoScan iPhone App</u> providing
 consumers with authorised and trusted food product information, and the new <u>GS1 DataBar</u> to
 improve management of fresh foods.
- NCS International Offering businesses certification, risk management, business
 improvement and assurance.
- <u>SAI Global</u> Providing information services and solutions for managing risk, achieving compliance and driving business improvement.
- <u>SGS Australia</u> A global company, provide industry leading inspection, verification, testing and certification services.
- TQA Australia Key management consultants to agribusiness in Australia, providing advice
 in a range of disciplines including food safety and quality assurance, environmental assurance,
 occupational health and safety, strategic planning and professional development.

FROM: EVENTS

 \leftarrow 'W hat it takes to instill a food safety culture in your business' new presentation

The Fresh Produce Safety — Australia & New Zealand website provides open access to actionable information needed for fresh produce businesses and government to continually enhance the safety and quality of fruit and vegetables. The project, initiated by voluntary funds from The University of Sydney Faculty of Agriculture and Environment, and PMA Australia - New Zealand, with matched funding from the Australian Government through Horticulture Australia Limited (HAL), aims to identify research needs and

provide information and resources for all stakeholders in the fresh produce industry on food safety practices Popular Topics

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Center for Produce Safety, UC Davis Horticulture Australia Limited (HAL) PMA Australia-New

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appendix 8.0



Interim Reconciliation of Project Funds

Project Code: HG12020

Project Title: A New Collaborative Paradigm for Fresh Produce Safety

Below is the **draft** reconciliation of expenditure for the above mentioned project to date (21 June 2013) given that the project is not due to finish until 20^{th} August 2013:

Description	Budget approved from HAL	Payments Received from HAL	Total Expenditure on Activity	Expenditure on Capital Items	Budget minus Total Expenditure
	\$	\$	\$	\$	\$
Project Officer	\$90,000		\$66,684 (As on 17 May 2013, ongoing cost until 19 Aug 2013)		\$23,316 To be spent on salary until 20 August 2013
Activity 1 and 2 Workshop – building a new Paradigm forum	\$9,000		\$8,400		\$600
Activity 1 and 2 Domestic Travel	\$3,000		\$2,350		\$650 To be spent on meetings regarding Centre model
Activity 2 US visit to Australia	\$22,800		\$22,105		\$695
Activity 3 and 6 Outreach,	\$13,280		\$10,300		\$2,980

website, extension			
Activity 4 Australia to visit US	\$13,700	\$13,700	\$0
Activity 5 Freshcare workshop	\$2,100	\$2625	-\$525
Activity 7 PMA Fresh Connections Booth	\$7,000	\$7013	-\$13
Project Resources	\$5,000	\$4300	\$700
Reporting	\$4,609.40	\$2900	\$1710
TOTAL	\$170,489.40	\$140,377	\$30,113